**OFI WG Weekly telecom – 05/5/2015**

**Agenda:**

* Roll call, agenda bashing
* SC15 tutorial
* Naming “OFI” (yet again)
* Post release 1.0
* Liran’s Concerns

**SC15 Tutorial, HotI paper**

A proposal for a tutorial has been submitted to SC’15. A copy of the proposal is available on the OFA website in the downloads area.

An abstract for a Hot Interconnects paper has also been submitted.

**Naming**

Some confusion remains over the expressions ‘libfabric’ and ‘OpenFabrics (Open Fabrics) Interface(s)’. Summary:

1. Is libfabric singular or plural? Answer: Singular, there is only one library called ‘libfabric’

2. Is “OpenFabrics” one word or two? Answer: One. This is by convention in order to mimic OFA

3. Is “Interface(s)” singular or plural? Answer: Plural. OFI is the umbrella for a family of network interfaces, including both user libraries and kernel modules.

4. What is the relationship between all the above? Answer: OFI is the name for a project to contain multiple sets of interfaces, of which libfabric is the first.

Discussion

- Sean – prefers Open Fabrics Interfaces (3 words, plural). OFI is viewed as a container for the work, which at the moment includes only libfabric. That has resulted in some confusion that “OFI” and “libfabric” are synonymous – they are not. “OFI” is the name of an OFA project to develop network APIs; libfabric is the first library developed under that project.

- Jeff – libfabric is singular because it’s the name of one library. Prefers “OpenFabrics Interfaces”.

- Paul – Prefers “OpenFabrics” (as opposed to Open Fabrics) because it relates this work to the OFA.

- Dave - What about kOFI? Assuming it emerges, how does it relate? It seems as though ‘kOFI’ would be another library, like libfabric, under the OFI umbrella. One possibility is to rename it ‘libkernel’, or kFI, or something. This is a topic for the DS/DA group to consider. (follow-up note: The DS/DA group has subsequently decided to abandon “kOFI”, and instead adopt kfabric.

By consensus: objections were solicited and none were heard. Therefore:

- OFI = OpenFabrics Interfaces. The name for a project containing one or more sets of network interfaces, to include user mode libraries and kernel mode modules.

- libfabric. The name for a library for user mode APIs to access communication services.

**Liran’s Concerns**

- Jim R – Liran raised an issue in the DS/DA meeting that there is really no need for any of this, it can all be done under verbs.

- Jeff S – we’ve talked about this issue 17,000 times. There are members of this community who feel the need for something other than verbs and/or IB, as evidenced by the broad and active participation in this group.

- Paul -The key is that OFI is designed explicitly to NOT be tied to any existing RDMA-capable network; I describe those networks generally as being members of the so-called IB family of RDMA-capable networks because they share key concepts in common.

- Frank Berry – verbs is rooted fundamentally in a connected QP abstraction, which fundamentally requires h/w assist to achieve reasonable performance. Verbs was designed from the bottom up, whereas OFI is being designed from the top down.

- Consensus is that there is no need to entertain further discussion on this point. The members of the OFI WG believe that OFI and Verbs should and do co-exist. Note that verbs is one of the supported providers for libfabric rel 1.0.

**Post Release 1.0 – See Sean’s email 4/30/15 – [ofiwg] post OFI 1.0**

Currently about 50 open issues in GitHub. May be able to hit one or two of these for the Q2 release, the rest should be addressed in the Q3 release.

\* Should releases be 1.1, 1.2, 1.3, etc. or 1.0.1, 1.0.2, 1.0.3?

- See Jeff S’s email on the subject, including a pointer to a website.

- Next release (Q2) could be either 1.1 or 1.0.1, depending on how much gets added. Bug fixes etc would be 1.0.1, major functionality would merit a 1.1.

- Dave - Cisco doesn’t have a specific set of features tied to any particular release.

-Sean – PSM provider will have only bug fixes, sockets provider may have new functionality.

\* Support more efficient formats for iovec's (32)

 What formats should be targeted?

 How are the new formats used with the existing APIs?

 Are new APIs required to use the new formats?

- Proposal is to create a ‘strided’ iovector

- May require some kind of a flag for the provider to indicate if it supports this or not.

- Can a stride be negative, i.e. stride backwards through a data segment?

\* Multicast support (1001)

 How are multicast groups joined?

 How are multicast addresses specified to the provider?

 Does multicast introduce a new set of APIs, or reuse/extend existing ones?

\* Topology (253)

 What does the topology data look like?

 How do providers discover and report topology information?

\* AV support for exchanging provider specific data (298)

 Providers may be able to take advantage of apps that exchange

 data out of band. What would such an interface look like?

\* Domain events (244)

 What event types and data should be reported?

\* Environment variables (177)

 There was a discussion for registering environment variables with the

 framework, so that all active variables could be exported by the

 framework and documented.

Webex link: <https://cisco.webex.com/ciscosales/j.php?MTID=m9389b0513c9ae643d57e2381e254dcf5>
Webex password: ofi

**Future Agenda Topics:**

**OFIWG Download Site:** [www.openfabrics.org/downloads/OFIWG](http://www.openfabrics.org/downloads/OFIWG)

**Github:** <https://github.com/ofiwg/libfabric>

**OFI Software Download Site:** [www.openfabrics.org/downloads/OFI](http://www.openfabrics.org/downloads/OFIWG)

**Link to WebEx Recording** - [**Play recording**](https://cisco.webex.com/ciscosales/lsr.php?RCID=878bf7dd7f2f4968a7fc4b87642b3a87)

**Next regular telecon**

Next meeting: Tuesday, 5/12/15

9am-10am Pacific daylight time