**OFI WG telecon – 05/19/2020**

**Agenda:**

1. Opens, agenda bashing
2. Discussion – applying the concepts of virtio to support for network devices – Igor Gorodetsky
3. Continue discussion of libfabric overrides – allowing a libfabric consumer to provide overrides for common libfabric provider operations – Ian Ziemba
4. Continue discussion of enhancements to support Remote Persistent Memory, use cases and motivations – Jim Swaro / Sean Hefty (if time permits.)
   1. Enhancements to support additional PM use cases -  [Issue #5874](https://github.com/ofiwg/libfabric/issues/5874)
   2. HPE proposal, reference implementation and associated changes – [PR #5875](https://github.com/ofiwg/libfabric/pull/5875)
   3. Sean’s proposal for a new flag, “FI\_SAVE – [comment on issue #5874](https://github.com/ofiwg/libfabric/issues/5874#issuecomment-622657068)

**Opens**

-none-

**Virtio-fabric – Igor Gorodetsky**

About server virtualization in general, and virtio in particular.

Quick overview of the use of dedicated virtual functions used today.

Dedicated PASID –

What is virtio? Eliminates the need for a vendor specific device driver in the guest OS

Once virtio driver had been introduced to the guest OS, virtio h/w devices began to emerge, allowing a guest OS virtio driver to directly access the NIC hardware. In effect, a standardized h/w interface to a NIC had been created. Leverages the IOMMU in the NIC.

Two offload options

* Full h/w offload
* vHost Data Path Acceleration (vDPA) – partial offload, offloads only the data plane, not the control plane.

Why do this? Offload virtio-net?

* No vendor dependencies, easily transportable among VMs and devices.

Looking at the list of virtio types, there are many defined. But there isn’t one to support RDMA-style NICs.

**Proposal**: Define virtio-fabic – based on libfabric interface, implements a virtio-fabric provider, but also allows for vendor specific capabilities and attributes.

Over time, it is expected that vendors will adopt the descriptor interface defined by the virtio-fabric provider, allowing a guest VM to directly access the NIC h/w, bypassing the host’s vendor-specific device driver.

What is the expected discovery mechanism? How does a client discover the devices and their capabilities? Expectation is that a vendor-specific host driver still exists for configuration and allocation purposes. Presumably virtio has solved these problems; we simply need to understand those mechanisms.

**Future Agenda Items**

**Next meeting**

**Tu**esday, June 2, 2020

9:00 – 10:00AM PST

**Agenda – tbd**

**Recording:**

See the OFA central calendar for meeting logistics. <https://openfabrics.org/index.php/ofa-calendar.html>

**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)