**Technical Program Committee October 16, 2016**

**Possible tracts for the spring OFA Workshop:**

* ***Specific update in response to Paul’s general request: My suggestion was for a tract specific to data-intensive computing, data analytics, and cloud computing (virtualization and bare metal provisioning). This tract would include, but would not be limited to, storage connectivity using high-speed, low-latency fabrics, such as GPFS, Lustre, Ceph, Swift, which may use spinning disk, flash storage media, and NVMe. Also included are virtualization of hosts, storage devices, networks, network interfaces, possibly using SR-IOV. May also include software-defined storage and software-defined networks using high-speed, low-latency fabrics. Source: Chris***

**From our initial TPC meeting 10/6:**

* The open source community and what’s going on WRT development. Source: Paul
  + Huge amount of activity – 5 new drivers (Jason)
  + Linux as guest OS under Azure (Jason)
* Persistent Memory/Nonvolatile Memory (PM/NVM): last time treated “in passing”; this time consider more in-depth treatment, possibly “PM implications to applications”. Source: Paul
  + “What’s happening in RDMA subsystems”; possibly a keynote, state of the union
  + DougL could kick this off, possibly with more detailed sessions to follow
  + Take ideas from Linux kernel conference
* Accelerators, FPGAs and networks. Something with sockets and zero queue. Also NVM. Source: Jason
  + Not CPUs for storage and calculation-intensive workloads (Paul)
  + This is a critical connection, not yet solved (Paul)
* Interoperability of RDMA technologies. Example: at LANL OPA and IB need to coexist on the same node or network. Especially challenging when trying to use “latest and greatest” – older versions tend to work better – said differently, at one point this all worked. Source: Susan
* Is OFED failing or on a path to this, especially recently? Source: Jason
* We have a unified stack; the problem is in forks. Special pain point: shared resources like storage – note strongly encouraged by Susan. Source: Jason
* OFA roles and goals WRT OFED; for example, avoid fragmentation?
* Problems and success stories integrating open fabrics SW stacks; various flavors and how they work together. Source: Susan
* Organize a series of sessions to specifically resolve problems. Source (mostly) Jason
  + Constructive confrontation
  + Acknowledged to be a “gripe fest”, but not tried before
  + Use real world examples
  + Problem solving, interactive
  + Specific, not a general discussion of the OFA
  + The Plumbers’ Conference could be a source of ideas
* Coherent access to accelerators. Source: Scott
* Security for RDMA networks; claim: often overlooked
  + New patches and capabilities
  + Point solutions, but also a larger question how ***should*** security work?
  + Network vs. host security – ties back to virtualization, access control, containers secure from other containers
  + Term “container” may not be sufficient, may need something broader like “RDMA connections