OpenFabrics Alliance Workshop
April 9-13, 2018
Embassy Suites
Boulder, CO, U.S.A.

CALL FOR SESSIONS

The OpenFabrics Alliance (OFA) is committed to accelerating the development of high performance fabrics. The annual OFA Workshop, located this year in Boulder, CO, is a premier means of fostering collaboration among those who develop fabrics, deploy fabrics, and create applications that rely on fabrics. It is the only event of its kind where fabric developers and users can discuss emerging fabric technologies, collaborate on future industry requirements, and address problems that exist today.

Workshop participants include: Application developers & end users / Communications middleware developers / Network & storage vendors & researchers / OS solutions developers / Enterprise data center managers & architects / System & network administrators / System OEMs, architects & integrators / Kernel developers & maintainers

SESSION TOPICS

Examples of topics that will be of interest to the Workshop include:

Commoditization of RDMA
- Porting sockets applications to RDMA
- Expanding SMC-r to more transports
- Containerization of RDMA
- Secure networks - SELinux for RDMA
- Management of RDMA interfaces

AI and Machine Learning
- Fabric requirements for AI & Machine Learning: Expanding beyond one node
- Fabric support for emerging use cases
- Performance results and experiences in running AI & Machine Learning over RDMA fabrics
- Gaps and issues in existing fabric implementations

Data Analytics
- Data patterns and workloads specific to Data Analytics
- Fabric support for Data Analytics workloads
- Impacts from offloading analysis logic onto the fabric
- Hardware assist for analytics
- Strategies for managing analytics data rates
- Analytics workloads as a driver of network technology

Cloud Deployments over Fabrics
- Monitoring fabric performance
- Network Interface virtualization
- Security in cloud fabrics

- Managing Fabric Configuration
- Backup and Recovery strategies
- Resilience, Congestion Control, QoS
- What fabric topologies are relevant to the cloud?

Network APIs, Libraries and Software
- Recent efforts in libfabrics
- Kernel APIs for new fabrics
- Verbs API Extensions, new IOCTL API
- Incorporating support for Persistent Memory into new and existing APIs

Persistent and Non-Volatile Memory
- APIs for application access to PM
- NVMe, Persistent Memory over Fabrics
- Parallel NFS (PNFS)
- Emerging application use cases for Persistent Memory
- Recent developments in Persistent Memory technology

Topics in the Kernel
- What's new in the kernel?
- How to support containerization?
- Expanding SMC-r beyond RoCE
- Creating a standard SELinux configuration
- New IOCTL APIs

Accelerators, FPGAs, GPUs
- Fabric strategies for enabling accelerators on the platform
- How do accelerators stress the fabric?

- Direct access to accelerator memory
- What is required of the kernel
- Direct attached and fabric attached accelerators
- The programmer's perspective

Competitive Landscape in Fabric Technologies
- Making sense of fabric soup – IB, RoCE, iWARP, Aries, OPA, Gen-Z, OpenCAPI…
- Compare/contrast fabric interfaces: UCX, libfabric, verbs, and others
- Fabric interfaces for Gen-Z
- Emerging fabric technologies
- What services should a fabric provide?

Future Directions in Networking
- Topics in networking beyond RDMA

Topics in System Administration
- Deploying RDMA in commercial environments
- Monitoring for performance and stability in the network
- Best practices in SysAdmin – learnings in Subnet and Fabric Management
- Lessons in deploying heterogeneous fabrics
- Best practices in Resiliency and Failover

SESSION FORMATS

The Workshop places a high value on collaboration and exchanges among participants. In keeping with the theme of collaboration, proposals for Birds of a Feather sessions and Panels are particularly encouraged.

Single-Speaker Sessions generally 30 minutes, allowing exploration of key topics

Panel Discussions are an excellent way to drive debate and discussion

Birds of a Feather provide an opportunity for folks to compare notes on a particular topic

Town Hall Meetings are an option for topics needing discussion by the community at large

In addition, the Workshop this year will be hosting:

Lightning Talks to encourage fast-moving, free form discussion. Advance signups are not required

Meet the Experts a chance to exchange ideas with recognized experts

SUBMISSION INSTRUCTIONS

Visit our website at www.openfabrics.org for submission details. Proposals must be received by **February 16, 2018, 5:00 PM PST**. The Technical Program Committee will respond to proposals by **March 9, 2018**.

Contact press@openfabrics.org with questions.