**2013 OpenFabrics Alliance International Developer Workshop**

The OpenFabrics International Developer Workshop held on April 21-24 offered a multi-day workshop with sessions related to the development and improvement of OpenFabrics Enterprise Distribution, an interoperable software stack for leading RDMA transports for Linux and for Windows. The workshop also included speaking and panel sessions on major technological developments within this industry.

The Workshop kicked off Sunday, April 21, with a keynote from Mark Seager, Chief Technology Officer for the High Performance Ecosystem at Intel. Presentations and panel sessions began the following morning covering topics such as, scalable architectures, enterprise data centers, storage, cloud, and Big Data.

The presentations from the workshop are available below.

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| **Legend** | **OFA** | **Scalable Architectures** | **Enterprise** |
| **Cloud** | **Big Data** | **Storage & Storage at a Distance** |

**Get all presentations in a Zip file:** [**All days**](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/2013_Workshop_All_Presos.zip)**;** [**Monday, April 22nd**](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Monday_0422.zip)**;** [**Tuesday, April 23rd;**](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tuesday_0423.zip)[**Wednesday, April 24th**](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_0424.zip)

**You can find** [**videos of the presentations**](http://insidehpc.com/video-gallery-open-fabrics-developer-workshop-2013/) **on the** [**InsideHPC site**](http://insidehpc.com)**.**

|  | **Sunday, April 21** | **Monday, April 22** | **Tuesday, April 23** | **Wednesday, April 24** |
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| **8:00 AM** |  | [Introductions, Workshop Goals, Controversies](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_0800_OFA_Workshop_welcome_session.pdf)**Speaker:** Jim Ryan, OFA Chair | [Innovative Topologies](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_0800_Quackenboss_Infinetics_Presentation.pdf)**Speakers:** Harry Quackenboss, InfineticsRatko Tomic, Infinetics | [Software Defined Datacenter](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_0800_Simons_SoftwareDefinedDatacenter.pdf)**Speaker:** Josh Simons, VMware |
| **8:30 AM** |  | (8:15AM) [Updates from User Day](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_0830_OFA_UserDay.pdf)**Speaker:** Susan Coulter, LANL | [Extending Verbs API](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_0830_Tzahi_Oved-verbs_extensions_ofa_2013-tzahio.pdf)**Speaker:** Tzahi Oved, Mellanox | [RDMA in Virtual Environments](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_0830_BhaveshDavda-vRDMA.pdf)**Speakers:** Bhavesh Davda, VMwareAaron Blasius, VMware |
| **9:00 AM** |  | (8:45AM) [Evolving OFS for the Modern World - A Challenge to Attendees](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_0900Next_Gen_RDMA.pdf)**Speaker:** Paul Grun, Cray | Alternative Approaches to Sockets over RDMA**Speakers:** [Sean Hefty, Intel](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_0900_Sean-Hefty-rsockets-ofa13.pdf)[Jerry Stevens, IBM](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_0900_Stevens_SMC-R.pdf) | Windows File Sharing High Performance RDMA Considerations**Speaker:** Tom Talpey, Microsoft |
| **9:30 AM** |  | [Scaling OFA: Beyond RDMA?](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_0930_Magro-201304-ScalingOFA-Intel.pdf)**Speaker:** Bill Magro, Intel | [On-Demand Paging for User Space Networking](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_0930_liss_odp.pdf)**Speaker:** Liran Liss, Mellanox | [On Suitability of High-Performance Networking API for Storage](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_0930_MetzlerOFA_IOAPI.pdf)**Speaker:** Bernard Metzler, IBM |
| **10:00 AM** |  | **Break** | **Break** | **Break** |
| **10:30 AM** |  | Scaling with PGAS Languages Panel**Moderator:** Paul Grun, Cray**Panelists:** [Howard Pritchard, Cray;](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1030_ofa_pgas_panel_howardpritchard.pdf) Mirko Rahn, Fraunhofer Institute; [DK Panda, OSU;](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1030_dk_panda_pgas_panel_new.pdf) Rich Graham, Mellanox; Robert Woodruff, Intel | [Network Direct Update](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1030_Fab-Tiller-OFA_NDv2.pdf)**Speaker:** Fab Tillier, Microsoft | [Linux SRP Initiator for Reducing Fail-over Time in a H.A. Setup](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_1030_BartVanAsscheOFED_SRP.pdf)**Speaker:** Bart Van Assche, Fusion-io |
| **11:00 AM** |  | [QCN w/Ethernet and RoCE](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1100_liss_qcn.pdf)**Speaker:** Liran Liss, Mellanox | SSD Higher Speed Devices Architectural Interconnect Impact**Speaker:** Johann George, SanDisk |
| **11:30 AM** |  | Update on Portals 4**Speaker:** Brian Barrett, Sandia National Labs | [NVM Express: Maturing Fast](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1130_Akerson_NVMe_Overview.pdf)**Speaker:** David Akerson, Intel | [Efficient interfaces to Take Advantage of SSDs. NVM Programming Architecture / Opportunities for Interconnect](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_1130_WaltHubisFusion_io_.pdf)**Speaker:** Walt Hubis, Fusion-io |
| **12:00 PM** |  | [Clouds at a Distance](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1200_Tom_Coughlin_OFA_Workshop_%20042113.pdf)**Speaker:** Tom Coughlin, Coughlin Associates | [High performance RDMA based design for Big Data and Web 2.0 memcached](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1200_panda_bigdata.pdf)**Speaker:** DK Panda, OSU | [Technology Advisory Council](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_1200_OFA%20TAC.pdf)**Speakers:** Tom Stachura, IntelDiego Crupnicoff, Mellanox |
| **12:30 PM** |  | **Lunch** | **Lunch** | Building a Directional Consensus**Speakers:** Jim Ryan, OFA Chair[Paul Grun, Cray](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_1230_Next_Gen%20RDMA_wrapup.pdf) |
| **1:00 PM** |  | **Lunch**OpenFabrics Alliance [Interoperability Program](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_1300_OpenFabricsAllianceInteroperabilityProgram.pdf)**Speaker:** Rupert Dance, Software Forge[OFED Update](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Wed_0424/2013_Workshop_Wed_1330_OFA_EWG_report.pdf)**Speakers:** Tziporet Koren, Mellanox Robert Woodruff, Intel |
| **1:30 PM** |  | Improving MPI scaling**Speaker:** Rich Graham, Mellanox | Accelerating Big Data over RDMA**Speaker:** Sreev Doddabalapur, Mellanox |
| **2:00 PM** |  | [Challenges of Scale & MPI/PGAS APIs](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1400_Rimmer_OFA_Workshop_Scale_and_Compute_APIsv3.pdf)**Speaker:** Todd Rimmer, Intel | [State of Ubuntu, OpenStack & OFED Testing and Development](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1400_Samantha_OFA-Canonical.pdf)**Speaker:** Samantha Jian-Pielak, Canonical | System Administration Training**Speaker:** Rupert Dance, Software Forge |
| **2:30 PM** |  | [OFS for the Intel Xeon Phi](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1430_OpenFabrics_OFS_software_for_Xeon_Phi.pdf)**Speaker:** Robert Woodruff, Intel | [Cloud Computing for DOD](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1430_VirginiaRossOFA_Workshop.pdf)**Speaker:** Virginia Ross, U.S. Air Force | Wrap-up, Feedback, Action Items**Speaker:** Jim Ryan, OFA Chair |
| **3:00 PM** |  | **Break** | **Break** |   |
| **3:30 PM** |  | [Scalable Subnet Administration](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1530_Sean_Hefty_ssa_ofa13.pdf)**Speaker:** Sean Hefty, Intel | [SSD-Assisted Designs for MPI Fault-tolerance and Accelerating Web 2.0](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1530_panda_ssd.pdf)**Speaker:** DK Panda, OSU |   |
| **4:00 PM** |  | InfiniBand Scalability for One-Sided Communication**Speaker:** Zarka Cvetanovic, HP | [RDMA in Wide Area High Speed Area Networks](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1600_LindenMercerOFA2013_NRL.pdf)**Speaker:** Linden Mercer, NRL |   |
| **4:30 PM** |  | [MVAPICH2 and Intel MPI Implementations for MIC](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1630_Magro_20130422_OFADevConf_IntelMPIonPhi.pdf)**Speakers**: DK Panda, OSUBill Magro, Intel | [Update on Lustre, OpenSFS and FastForward InfiniBand](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Tues_0423/2013_Workshop_Tues_1630_DougOucharekOFA_Workshop_Lustre.pdf)**Speaker:** Doug Oucharek, Intel |   |
| **5:00 PM** | **Registration / Badge Pick-Up** | [Completion Queue Handler Group for Scalable User Verb Applications](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1700_Guangyu_Oracle_OFA_Workshop_CQH.pdf)**Speakers:** Guangyu Shi, Oracle Pallab Bhattacharya, Oracle |   |   |
| **5:30 PM** | [Ethernet over InfiniBand (EoIB)](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1730_Ali_Ayoub_OFA_2013_EoIB.pdf)**Speaker:** Ali Ayoub, Mellanox |  |   |
| **6:00 PM** | [OFA Annual General Meeting](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Mon_0422/2013_Workshop_Mon_1800_OFA_Workshop_AGM_2013.pdf)**Speaker:** Jim Ryan, OFA Chair |  |   |
| **6:30 PM** |   |  |   |
| **7:00 PM** |  |   |   |
| **7:30 PM** | **Keynote**[*Criteria for a Scalable Architecture*](https://www.openfabrics.org/images/docs/2013_Dev_Workshop/Sun_0421/2013_Workshop_Sun_0730_OFAKeynote-SeagerV2.pdf)**Speaker:** Mark Seager, Intel |  |  |   |
| **8:00 PM** |  |  |  |
| **8:30 PM** |  |  |  |
| **9:00 PM** | **Reception** |  |  |  |