

ETHERNET ALLIANCE HERALDS NEXT ETHERNET ERA WITH OFC 2017 DEMO

Multi-booth display illustrates pathway to build-out of next-generation, high-speed Ethernet technologies

BEAVERTON, OR, MARCH 14, 2017 – The Ethernet Alliance, a global consortium dedicated to the continued success and advancement of Ethernet technologies, today unveiled details of its live, interactive <u>OFC 2017</u> demo. Featuring one of the largest numbers of participating member companies ever, the Ethernet Alliance's interoperability demo emphasizes the full spectrum of Ethernet speeds from 1 Gigabit (1G) to 400 Gigabit (400G) and features a live 400G demo interconnecting to four discrete member booths. The Ethernet Alliance can be found in booth 3709 on the OFC 2017 expo floor, March 21 – 23, 2017, at the Los Angeles Convention Center, Los Angeles, Calif.

To follow the latest Ethernet Alliance OFC 2017 news and events, please follow #EAOFC17 on Twitter.

"It's an incredibly exciting time in the industry as investments in next-generation Ethernet standards are coming to fruition. Our members – including equipment manufacturers, system and component vendors, test and measurement, and everyone else in-between – are developing the solutions that will enable these standards," said John D'Ambrosia, chairman, Ethernet Alliance; and senior principal engineer, Huawei. "The diversity of solutions will allow network designers to tailor their network to their individual application's bandwidth needs and specific requirements. With multiple application spaces refreshing near-simultaneously, we're witnessing the largest aggregated build-out ever. In short, the next Ethernet era is off to a terrific start."

As the role of optics in Ethernet is undeniable, the Ethernet Alliance's OFC 2017 multivendor demo showcases a broad array of optical technologies, featuring 400G optics and form factors, cabling, and other emerging fiber innovations. The organization's display encompasses two demonstrations, one focusing on a wide range of solutions ranging from 1G to 100G. The second demo integrates live 400G optical network connections from the Ethernet Alliance's booth to four other autonomous member company booths on the expo floor. Reflecting the whole of the Ethernet ecosystem, these demos incorporate an extensive variety of switches, NICs, servers, cabling, fiber, and cutting-edge test equipment that provides data generation and real-time analysis. These technologies are the latest evolution in the Ethernet portfolio, and the foundation of the next Ethernet era.

With one of the highest rates of member company participation to-date, the Ethernet Alliance's OFC 2017 demo features equipment and technologies from 16 different organizations, including Amphenol Corporation (NYSE: <u>APH</u>); Aquantia Corporation; Broadcom Limited (NASDAQ: <u>AVGO</u>); Cisco Systems, Inc. (NASDAQ: <u>CSCO</u>); Finisar Corporation (NASDAQ: <u>FNSR</u>); Ixia (NASDAQ: <u>XXIA</u>); Juniper Networks; Mellanox Technologies, Ltd. (NASDAQ: <u>MLNX</u>); Molex, Inc.; Oclaro, Inc. (NASDAQ: <u>OCLR</u>); Panduit Corp.; Spirent Communications (LSE:



<u>SPT.L</u>); TE Connectivity Ltd. (NYSE: <u>TEL</u>); Teledyne LeCroy, Inc. (NYSE: <u>TDY</u>); Viavi Solutions Inc. (NASDAQ: <u>VIAV</u>); and Xilinx, Inc. (NASDAQ: <u>XLNX</u>).

"This demo is much more than merely hooking up PHYs – it's a true representation of the disruptive transformations taking place at every level of the Ethernet ecosystem. With member company participation among the highest it has ever been in Ethernet Alliance history, we have everything from interoperable real-world products available for immediate deployment, to forward-looking 400G technologies that will be the cornerstone of tomorrow's high-speed networks, to state-of-the-art test and measurement tools needed for validating a new generation of links and devices," said David J. Rodgers, board member and OFC 2017 technical lead, Ethernet Alliance; and senior product marketing manager, Teledyne LeCroy. "Our 400G demonstration highlights how IEEE 802.3[™] standards facilitate interoperability, even at the pre-ratification stage. It's another proof-point of Ethernet's capacity to just plug in and perform as expected."

In addition to its multivendor demo, the Ethernet Alliance is hosting an OFC 2017 panel entitled <u>The Fracturing</u> and Burgeoning Ethernet Market, where expert panelists will also discuss how the 100G market is simultaneously thriving and fracturing into numerous variants. Moderated by Chairman John D'Ambrosia, expert speakers for this Ethernet Alliance panel include Mark Nowell, vice president, Ethernet Alliance; and senior director of engineering, Cisco Systems, Inc.; Chris Cole, vice president, advanced development, Finisar Corporation; and Paul Brooks, product line manager for high-speed transport, Viavi Solutions, Inc. *The Fracturing and Burgeoning Ethernet Market* panel session will be held from 11am – 12pm PST, Tuesday, March 21, 2017, Expo Theater III on the OFC expo floor.

To experience the Ethernet Alliance's live multivendor demo, please visit booth 3709 on the OFC 2017 expo floor. For more information about the Ethernet Alliance, please visit <u>http://www.ethernetalliance.org</u>, follow <u>@EthernetAllianc</u> on Twitter, visit its <u>Facebook</u> page, or join the EA <u>LinkedIn</u> group.

About the Ethernet Alliance

The Ethernet Alliance is a global consortium that includes system and component vendors, industry experts, and university and government professionals who are committed to the continued success and expansion of Ethernet technology. The Ethernet Alliance takes Ethernet standards to market by supporting activities that span from incubation of new Ethernet technologies to interoperability demonstrations and education.

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Additional Quotes:

"For the past eight years Amphenol has been part of the Ethernet Alliance live demo at the OFC exhibition and is once again proud to be involved in this year's events. The OFC conference and exhibition is one of the nation's premier optical events each year and the Ethernet Alliance booth is great place for designers and end users. Both designers and end users alike can get the latest information on the latest in Gigabit Ethernet (GbE) and see the most current products in live and static demos.

Amphenol will be demonstrating our world-class 10 and 25GbE SFP+, 40GbE QSFP+, and 100GbE interconnect systems. Amphenol will showcase our passive copper cables and our latest Active Optical Cable assemblies (AOCs) as well as our SFP+ and QSFP+ cages and connectors. We will also have latest 25Gb RCx passive TOR cable system available. In addition, we will be showcasing a new offering of High Density (HD) rack mount optical connectivity panels and trunk cable solutions designed to increase density to improve cable routing and tray congestion." – *Greg McSorley, technical business development manager, Amphenol High-Speed Cables*

"The recently announced Aquantia AQS series modules deliver the flexibility and port density well known to the SFP+ form-factor while utilizing the existing twisted-pair copper cabling for network connectivity. These power-optimized solutions enable 10GBASE-T for lengths up to 30 meters and 100 meters for 2.5GBASE-T and 5GBASE-T.

Aquantia's solutions feature an active rate-adaptation technology that allows users to seamlessly use 2.5G and 5G modules in existing SFP+ slots that were previously considered to suitable only for 10G fiber optic or Direct-Attach Copper (DAC) cables — at a superior cost/performance point." – *Kamal Dalmia, senior vice president, sales and marketing, Aquantia*

"OFC 2017 marks the arrival of the first-generation of 400GE pluggable transceiver modules offered in the MSA based CFP8 form-factor. Our CFP8 demonstration, which stretches between the Ethernet Alliance and Finisar booths, highlights the fast-paced progress being made across the industry in readiness for deployment of 400GE products. Broad participation at OFC 2017 clearly demonstrates that the all-important ecosystem, to drive widespread adoption of 400G, stretching across Module and IC vendors as well as equipment manufacturers has been established." – *Mark Ives, director, product line management, Finisar*

"Ixia is proud to be a member of the Ethernet Alliance, and to participate in the 400GE interoperability demonstrations with the latest CFP8 and QSFP-DD interface technologies. Joining with other industry-leading companies to showcase 400GE networking and optics, clearly demonstrates that fundamental technology and test tools are readily available to build the next generation of high speed networking products." – *Bethany Mayer, president and chief executive officer, Ixia*

"Juniper Networks is pleased to participate in the Ethernet Alliance as an industry leader in automated, scalable and secure networks. Collaboration and interoperability are key to driving innovation and we're proud to work alongside fellow industry experts toward the advancement of Ethernet technologies. To highlight this point and demonstrate Juniper's commitment to open standards, we will be showcasing interoperability of Juniper technology with equipment from several vendors in an extended topology that simulates real-world applications in a diverse multi-vendor environment. Be sure to stop by the Ethernet Alliance booth at this year's OFC to learn more about how Juniper Networks is helping customers connect their ideas, compete and thrive in an everchanging world." – Donyel Jones-Williams, director, service provider portfolio marketing, Juniper Networks



"Molex proudly supports the Ethernet Alliance and its mission to advance Ethernet technologies. Innovation and industry collaboration are vital to the development of each new generation of interoperable interfaces, modules, and protocols. The release of the QSFP-DD form factor specification by a 50 member MSA represents a significant milestone that will usher in high-density, high-speed networking solutions up to 400 Gbps." – *Scott Sommers, group product manager, Molex*

"Panduit is excited to contribute to Ethernet Alliance's interoperability and 400G demonstrations as a trusted provider of network cabling and infrastructure products. Panduit will display HD Flex[™] Fiber Cabling System, PanMPO[™] Fiber Optic Assemblies, and 100GbE DAC interconnects. HD Flex[™] Fiber Cabling System is engineered to provide the highest levels of density and serviceability for high-performance data centers. The system is designed to enable organizations to easily scale up density and execute moves, adds, and changes quickly and safely, without disrupting adjacent circuits. In addition, Panduit has partnered with Finisar to demonstrate 100G SWDM4 over varying lengths of OM4, OM5, and Signature Core[™] fiber." – Darcy Phillips, associate product manager, Panduit

"Bandwidth requirements continue to increase in order to accommodate an ever-expanding subscriber base and increasingly popular services such as video-on-demand and social media. The emerging 400GbE market will enable connectivity to next-generation switches and routers, high-density cloud data centers, and service provider devices and applications. In this demonstration with the Ethernet Alliance, Spirent will be showcasing its leadership in testing 400-Gigabit Ethernet. Spirent has the most flexible, highest density, and highest performance 400GbE test modules to ensure network interoperability, performance, and availability." – Abhitesh Kastuar, general manager, cloud & IP business unit, Spirent Communications

Since the beginning, the Ethernet Alliance and TE Connectivity have worked together to enable and promote the innovative Ethernet connections that count in high-performance computing and networking. From 1 to 100 Gbps and beyond, TE is proud to display and offer our critical Ethernet solutions including I/O, backplane and copper cable assemblies for a broad range of communications applications." – *Nathan Tracy, technologist, data and devices, TE Connectivity*

"The advancement and adoption of Ethernet variants has further established it as the "go to" communications channel for a broad range of traditional and new applications. Among these are enhanced storage applications, industrial, broadcast video, and automotive uses, as well as the legacy implementations with which the industry is all too familiar.

Teledyne LeCroy is leading the Test & Measurement segment with new test solutions and services to foster specification compliance and operational readiness to help the Ethernet community face the challenges of deploying and supporting new Ethernet products.

Every participant in the Ethernet Ecosystem is keenly aware of the need to ensure 'out of the box' performance, and Teledyne LeCroy's SierraNet product family fulfills a critical requirement towards achievement of that goal." – *David J. Rodgers, senior product marketing manager, ENET/SAN protocol tools, Teledyne LeCroy*

"Viavi delivers a 400G test platform for the entire optical network ecosystem, including research and development, module suppliers, network equipment manufacturers and service providers. The ONT-600 400G has been proven in numerous public demonstrations of interoperability, and can scale with a range of future applications." – *Dr. Paul Brooks, 400G technology lead, Viavi Solutions*



"Xilinx is pleased to be part of the multi-vendor 400GE interoperability demonstration by contributing our Virtex® UltraScale™ VU9P device with 400GE MAC and PCS IP on the VCU140 development platform with a CFP8 optical module. This demonstrates the impending release of the 400GbE standard which will enable numerous applications such as datacenter interconnect platforms for higher bandwidth capacity, next-generation switch and router high density line cards with newer optical modules, and high-end OTN transponders for more efficient optical infrastructure networks." - *Farhad Shafai, vice president, communications markets, Xilinx*