LATEST ETHERNET ALLIANCE PLUGFEST REACHES NEW HEIGHTS OF SUCCESS

High Speed Networking interoperability test event attracts diverse array of Ethernet solutions and participants

BEAVERTON, OR, FEBRUARY 26, 2019 – The Ethernet Alliance, a global consortium dedicated to the continued success and advancement of Ethernet technologies, today unveiled results of its most recent *High Speed Networking (HSN) Plugfest*. Held the week of December 3, 2018, at the University of New Hampshire InterOperability Laboratory (UNH-IOL) in Durham, N.H., the multi-vendor interoperability test event drew 22 participating companies with solutions spanning the whole of the Ethernet ecosystem. Beyond the high aggregated success rate for all testing, the plugfest achieved greater than 95 percent success in testing of solutions ranging from 50 Gigabit Ethernet (GbE) to 400GbE, highlighting the growing maturity of PAM4 signaling while still meeting the industry's multi-vendor interoperability demand.

"This latest *HSN Plugfest* was one of the most exciting testing events the Ethernet industry has seen to-date. A considerable number and diversity of products and technologies were tested against both IEEE standards and 100G Lambda Multisource Agreement (MSA) Group specifications. It's events like this that reinforce Ethernet's core value proposition: unparalleled multi-vendor interoperability," said Dave Chalupsky, plugfest chair and Board of Directors member, Ethernet Alliance; and principal engineer, Intel Corporation. "The exceptional volume of both industry attendance and successful tests shows that our members are committed to Ethernet's continued growth and evolution, while delivering the best experience for end users. It was a fabulous opportunity for engineers to debug issues and improve product interoperability in a confidential environment. We are already looking ahead to the next plugfest."

The weeklong Ethernet Alliance *HSN Plugfest* commanded record participation from leading Ethernet product and solution vendors, with 22 companies from across the Ethernet ecosystem testing a broad variety of equipment and technologies. Ranging from speeds of 25GbE to 400GbE in form factors including OSFP, QSFP, QSFP-DD, and SFP, among items tested were Ethernet switches and NICs, electrical and optical interconnect products, test and measurement equipment, and electrical and optical testing methodologies.

Throughout the duration of the event more than 320 Frame Error Rate (FER) tests were performed, as well as physical layer parametric testing on both electrical and optical interfaces. Of particular interest to the community was completing optical transmitter dispersion eye closure (TDECQ) tests on multiple products using test

equipment from different manufacturers, building confidence in this new methodology for PAM4 optical specifications. FER tests on 50G PAM4 and 100G PAM4 optics showed a pass rate of 96 percent in more than 79 trials. 50G PAM4 electrical signaling showed a FER pass rate of 99 percent in 160 trials on cables up to 3m in length. These results mark a major step forward in the transition from NRZ to PAM4 signaling for high-speed serial interfaces.

Attracting strong interest from the Ethernet community, the HSN Plugfest was open to both Ethernet Alliance members and 100G Lambda MSA Group members. Among the companies capitalizing on the competitive advantages offered by the event's secure testing environment were Amphenol Corporation (NYSE: APH); Arista Networks, Inc. (NYSE: ANET); Cisco Systems, Inc. (NASDAQ: CSCO); ColorChip Ltd.; Finisar (NASDAQ: FNSR); Foxconn Technology Co., Ltd. (TSE: 2354); Hewlett Packard Enterprise (HPE) Company (NYSE: HPE); Intel Corporation (NASDAQ: INTC); Juniper Networks, Inc. (NYSE: JNPR); Keysight Technologies, Inc. (NYSE: KEYS); Lumentum Holdings Inc. (NASDAQ: LITE); Marvell Technology Group Ltd. (NYSE: MRVL); Oclaro, Inc.; The Siemon Company; Spectra7 Microsystems Ltd. (TSX: SEV); Spirent Communications plc (LSE: SPT); TE Connectivity Ltd. (NYSE: TEL); Tektronix, Inc.; Teledyne LeCroy, Inc. (NYSE: TDY); Wilder Technologies; Xena Networks ApS; and Zhongji Innolight Co. Ltd. (SZSE: 300308).

Additional *HSN Plugfest* events are currently in the planning stages and are expected to fill quickly when announced. Companies interested in taking part in these vital multi-vendor interoperability events are encouraged to secure their participation by becoming Ethernet Alliance members. Many of the technologies tested during this plugfest are also available for viewing as part of the organization's live, interactive demo in booth 4749 on the OFC 2019 expo floor.

"Events like our *HSN Plugfest* are an essential tool for developers – the industry is in the early stages of new implementations of next-gen Ethernet products and solutions. What we're learning here delivers foundational support for the continued advancement of these technologies, as the data gets fed back into the product and standards development process," said John D'Ambrosia, chairman, Ethernet Alliance. "The Ethernet Alliance is committed to ensuring that Ethernet's multi-vendor interoperability is maintained, and the wholesale support our plugfests are receiving shows the Ethernet ecosystem is fully behind these efforts."

For more information about the Ethernet Alliance, please visit http://www.ethernetalliance.org, follow @EthernetAllianc on Twitter, visit its Facebook page, or join its LinkedIn 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. The organization's plans for 2019 may be found at https://ethernetalliance.org/member-events/.

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