Industry Leaders Form NBASE-T Alliance to Promote Multi-Gigabit Ethernet Technology for Enterprise Wired and Wireless Access Networks

Cisco, Aquantia, Freescale, and Xilinx join forces to address the explosion of wireless traffic while leveraging vast existing cabling infrastructure

MILPITAS, CA, AUSTIN, TX, and SAN JOSE, CA – October 28, 2014 – Cisco (NASDAQ: CSCO), Aquantia, Freescale (NYSE: FSL) and Xilinx (NASDAQ: XLNX) today announced that they have formed the NBASE-T Alliance, an industry-wide cooperative effort to promote the development of 2.5 and 5 Gigabit Ethernet (2.5GE and 5GE) technology for enterprise network infrastructure. The objective of the nonprofit organization is to advance multi-gigabit Ethernet technology that enables faster data rates on existing enterprise cabling originally designed for 1 Gigabit Ethernet (1GbE) technology.

Market trends demand a unified approach to the deployment of faster data rates on twisted-pair copper cables matching the bandwidth increase driven by 802.11ac Wave 2 Access Points (APs) and other technologies, such as 802.11ad, 802.11ax and LiFi. Early promoters Cisco, Aquantia, Freescale and Xilinx welcome interested parties to join the alliance and contribute to its objectives. More details can be found on the alliance website, at www.nbaset.org.

According to Cisco Visual Networking Index (VNI), total mobile data traffic will surpass 30 Exabytes per month in 2018. An estimated 52 percent of that traffic will be offloaded from cellular networks to the fixed network through WiFi, adding to the vast amount of wireless data transmitted over WLAN in enterprise branch and campus networks. The 802.11ac WiFi standard was developed to deal with this massive amount of wireless data. As the Wave 2 of the technology gets introduced, traffic aggregated on APs will quickly surpass multiple gigabits per second, and therefore require both the access point and the Ethernet Switch ports to scale beyond the 1GbE used in most networks.

"The 2.5Gbps and 5Gbps modes that the NBASE-T Alliance promotes could prove especially important for applications such as 802.11ac wireless LANs, as they allow enterprises to preserve legacy UTP wiring," said Loring Wirbel, senior analyst, The Linley Group. "In the early transition phases from Gigabit Ethernet to 10G Ethernet, network managers assumed enterprises would upgrade to Category 6a or possibly Category 7 structured wiring, but the associated costs led many enterprises to retain their Cat5e or Cat6 UTP wiring. The support of Cisco, Xilinx, Freescale and Aquantia gives the effort to standardize NBASE-T through IEEE more momentum to make this technology widely deployable."

In most enterprise campus networks around the world, Category 5e (Cat5e) and Category 6 (Cat6) twisted-pair copper cables are the most common deployed. These cables do not support 10 Gigabit Ethernet (10GbE) up to 100 meters, therefore the need for intermediate rates between 1 and 10 Gigabit has gained support throughout the industry. To advance the enormous potential for rates greater than 1GbE on legacy cabling, the NBASE-T Alliance founding companies teamed up to promote the development of 2.5GbE and 5GbE that will extend the life of the installed cable plant. NBASE-T efforts are expected to help enterprise network administrators address the growing demand for bandwidth and avoid the need to run multiple cables between switches and access-points.

Chris Spain, vice president of product management, Cisco, said, "The NBASE-T alliance is addressing one of the top networking challenges of today – speed in the access layer. The industry is moving to the next generation of 802.11ac – Wave 2 with theoretical data rates of up to 6.9 Gbps and actual aggregated bandwidth of up to 5 Gbps; a 1 Gbps link between the access point and switch is not sufficient. Our mission in working with the Alliance members is to provide customers with innovative technology to increase network speed without the need to upgrade the cabling infrastructure."

Kamal Dalmia, vice president sales and marketing, Aquantia, said, "The advent of 802.11ac wave 2 has created a unique opportunity for the formation of the NBASE-T Alliance, a strong and unique group of industry leaders gathered to bring multi-Gigabit rates solutions over legacy copper cables." Dalmia added "We're proud to be part of the NBASE-T Alliance and are looking forward to working closely with a growing base of supporters in the market."

Nikolay Guenov, director of product marketing, Digital Networking Group, Freescale said, "Freescale looks forward to collaborating with networking industry leaders to accelerate adoption of multi-gigabit Ethernet technology. Customers using our multicore processors in WiFi access points are exhausting 1GE copper backhaul links and must upgrade to 2.5GE and 5GE to meet their bandwidth requirements."

Hemant Dhulla, vice president of Wired Communications and Data Center business at Xilinx said, "Xilinx is excited to be a founding member of the NBASE-T Alliance and to be working with fellow industry leaders to enable 2.5GE and 5GbE solutions across the networking and data center industries. Being part of this organization gives us an opportunity to further enable innovative products and expand the capabilities this growing alliance has to offer."

About NBASE-T Alliance
NBASE-T Alliance is a group of industry leaders who have joined forces to promote the deployment of multi-Gigabit data rates on legacy cabling such as Cat5e and Cat6, filling the gap between 1GbE, which is insufficient in the wake of 802.11ac multi-gig speeds and 10GbE, which is incapable of running on the majority of installed cables. NBASE-T Alliance founding companies are Cisco, Aquantia, Freescale and Xilinx. The Alliance is incorporated in Delaware as a nonprofit organization. Please visit us at www.nbaset.org. For all inquiries, including submitting your company for joining the alliance, please send us an email at info@nbaset.org.

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