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IEEE Announces the Formation of Two New IEEE 802.3[™] Study Groups

IEEE 802.3 Next Generation <u>Ethernet Passive Optical Network</u> <u>EPON and</u> IEEE 802.3 2.5 Gb/s and 5 Gb/s Ethernet over Backplane and Copper Cable <u>Study</u> <u>Groups Launched</u>

PISCATAWAY, NJ, XX July 2015 – IEEE, the world's largest professional organization dedicated to advancing technology for humanity, today announced the formation of two new study groups: IEEE 802.3[™] Next Generation Ethernet Passive Optical Network (NG-EPON) study group and IEEE 802.3 2.5 Gb/s and 5 Gb/s Ethernet over Backplane and Copper Cable study group.

Today, fiber-to-the-premise deployments continue at an unprecedented rate and utilize 1G-EPON and 10G-EPON technologies to provide required service speeds. To address future bandwidth-hungry applications, next generation EPON will need to support higher speeds to address continuously increasing service tiers, while also enabling a converged access platform capable of delivering simultaneously services to residential, business, and cell tower backhaul customers.

"The telecommunications industry is faced with three main components that drive increasing access network speeds: number of subscribers, number of connected devices (and applications) per subscriber, and bit rate required by those devices and applications. All are increasing simultaneously, and these three growth areas combined lead to an exponential increase in bit rates over the fiber access network," said Dr. Curtis Knittle, chairperson of the IEEE 802.3 NG-EPON study group and director of Network Technologies at CableLabs, Inc. "The NG-EPON Study Group will explore market drivers, existing and projected technologies, and consolidate the industry around the objectives for the next generation Ethernet Passive Optical Network architecture to address the future needs of network operators."

In recent years enterprise and cloud storage devices, such as hard disk drive (HDD) and solid-state drives (SSD), have been in transition from block storage to object-based storage. At the same time these devices have evolved to use native Ethernet interfaces, and as a result vast cloud cold storage is now served by low-cost, high-capacity HDD devices where scaling capacity is simply a matter of expanding network capacity. Ethernet standards already address 1 Gb/s, 10 Gb/s and higher rate operation on Backplanes and Copper Cable. However 2.5 Gb/s and 5 Gb/s represent the long-term mainstream rate to serve sustained HDD rates and this gap will be considered by the IEEE 802.3 2.5 Gb/s and 5 Gb/s Ethernet over Backplane and Copper Cable Study Group.

"IEEE 802.3 Ethernet standards are evolving to address broader markets, such as supporting automotive and industrial networks," said Yong Kim, chairperson of the IEEE 802.3 2.5 Gb/s and 5 Gb/s Ethernet over Backplane and Copper Cable Study Group and senior director, CTO Office, Networking Broadcom Corporation. "We are now seeing the evolution of the mainstream object storage market as it transitions to take advantage of the benefits from the use of Ethernet. This study group will explore the objectives and criteria to serve the 2.5 Gb/s and 5 Gb/s Backplane and short reach copper cable applications."

"The formation of an IEEE 802.3 study group occurs when there is interest in developing a request to initiate an IEEE 802.3 Ethernet standards-development project," said David Law, chair of the IEEE 802.3 Ethernet working group and distinguished engineer with HP Networking. "Once enough interest in a particular technology area is established, an IEEE 802.3 study group provides a forum for global experts to come together in collaboration to develop a proposal for an IEEE 802.3 Ethernet standards-development project. I'm confident that the investigative work undertaken by these two new study groups will <u>help</u> drive standards advancement and development in their respective areas of expertise."

[Add links to study group home pages]

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