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New IEEE 802.3bm<sup>™</sup> Amendment Designed to Support Higher-Density Optical-Networking Applications, Reduce Cost and Power Demand of 100 Gb/s Ethernet Devices and Simplify Metro Services

Through globally open collaboration, IEEE 802.3bm amends base Ethernet standard to efficiently address market demand for greater performance, capacity and reach

PISCATAWAY, N.J., USA, XX Month Year – IEEE, the world's largest professional organization dedicated to advancing technology for humanity, today announced the availability of IEEE 802.3bm<sup>™</sup>, IEEE Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for 40 Gb/s and 100 Gb/s Operation Over Fiber Optic Cables. This amendment to IEEE 802.3<sup>™</sup>, Standard for Ethernet, is intended to support a number of advances in optical networking, enabling migration to higher-density applications, reducing cost and power demand of 100 Gb/s devices and simplified metropolitan services.

"Significantly higher Ethernet performance, capacity and reach in optical networking are needed inside and among data centers across metropolitan areas, given the ongoing proliferation of smartphones, video-on-demand, cloud computing and other bandwidth-intensive applications such as the Internet of Things," said Dan Dove, chair of the IEEE P803.3bm Task Force and chief consultant with Dove Networking Solutions. "The project to develop IEEE 802.3bm addressed these market needs through a globally open, collaborative effort that drew contributions from a broad spectrum of engineers and end users across the Ethernet ecosystem."

The IEEE 802.3bm specification amends the IEEE 802.3 base standard to reduce "lane count" for 100 Gb/s applications (from 10 lanes at 10 Gb/s each to four lanes at 25 Gb/s each), to expand reach for 40 Gb/s services to 40 kilometers and expand Energy Efficient Ethernet capability to include optical links.

"The rapid growth of Internet traffic is driving the need for higher data rates, higher density and lower-cost fiber optic solutions for the data center." said David Law, chair of the IEEE 802.3 Ethernet Working Group and distinguished engineer with HP Networking. "IEEE 802.3bm demonstrates how IEEE 802.3 is taking forward-thinking approach to stay ahead of global demands on Ethernet networking, which paves the way for innovation in devices and services."

IEEE Std 802.3bm is available for purchase at the IEEE Standards Store.

Deployment of technology defined by IEEE 802® standards is already globally pervasive, driven by the ever-growing needs of data networks around the world. New application areas are constantly being considered that might leverage IEEE 802 standards in their networks from wireless, to twisted-pair cabling, to fiber-optic cabling solutions. To better address the needs of all of these areas, IEEE 802 standards are constantly evolving and expanding. The success of IEEE 802 standards—from their inception through today—has been their fair, open and transparent development process.

For more information about the IEEE 802.3 Ethernet Working Group, please visit <a href="http://standards.ieee.org/develop/wg/WG802.3.html">http://standards.ieee.org/develop/wg/WG802.3.html</a>.

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## **About the IEEE Standards Association**

The IEEE Standards Association, a globally recognized standards-setting body within IEEE, develops consensus standards through an open process that engages industry and brings together a broad stakeholder community. IEEE standards set specifications and best practices based on current scientific and technological knowledge. The IEEE-SA has a portfolio of over 900 active standards and more than 500 standards under development. For more information visit <a href="http://standards.ieee.org">http://standards.ieee.org</a>.

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