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EC REVIEW DRAFT

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IEEE Publishes IEEE Std 802.3cc™-2017 25 Gb/s Ethernet Standard for Enhanced Enterprise and Metro Network Applications over Fiber

Standard amendment defines Ethernet Media Access Control (MAC) parameters, physical layer specifications, and management parameters to extend 25 Gb/s Ethernet well beyond 100 meters

PISCATAWAY, NEW JERSEY, USA, XX March 2016 – IEEE, the world's largest technical professional organization dedicated to advancing technology for humanity, and the [IEEE Standards Association \(IEEE-SA\)](#), today announced the publishing and availability of IEEE Std 802.3cc-2017—Standard for Ethernet Amendment: Physical Layer and Management Parameters for Serial 25 Gb/s Ethernet Operation Over Single-Mode Fiber. The new amendment to IEEE 802.3™ represents the first available industry standard developed specifically to address the growing need for increased Ethernet speeds for enterprise, campus and metro Ethernet speeds exceeding 10 Gb/s, and that can support reaches up to 10 and 40 kilometers over single-mode fiber (SMF).

“IEEE Std 802.3cc-2017 provides network operators a cost-effective upgrade path to 25 Gb/s that minimizes network design, installation and maintenance costs by preserving current network architecture, management, and software,” said David Lewis, chair, IEEE P802.3cc 25 Gb/s Ethernet over Single-Mode Fiber Task Force. “The work of the IEEE P802.3cc 25 Gb/s Ethernet over Single-Mode Fiber Task Force has demonstrated how responding quickly to industry demand for greater energy-efficient Ethernet capabilities can be achieved in a manner that can reduce both operational costs, and the environmental footprint of network upgrades.”

IEEE Std 802.3cc-2017 supports efficient Ethernet operation and defines single-lane 25 Gb/s PHYs for operation over single-mode fiber with lengths up to 10 km and 40 km.

IEEE Std 802.3cc-2017 addresses the requirement in metropolitan networks, where the core operates at 100 Gb/s, for tributary feeds at rates higher than 10 Gb/s. By enabling extended 25 Gb/s reaches, IEEE Std 802.3cc-2017 matches the per-lane rate of several 100 Gb/s PMDs currently used in these networks.

IEEE Std 802.3cc-2017 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, through 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.

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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 1,100 active standards and more than 500 standards under development. For more information visit <http://standards.ieee.org>.

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