ethernet alliance

ETHERNET'S EXPANSION CONTINUES UNABATED WITH NEW STANDARDS

Ethernet Alliance, leading industry voice of Ethernet, hails ratification of critical automotive, networking, data center, and industrial automation and controls standards

BEAVERTON, OR, JULY 06, 2016 – The Ethernet Alliance, a global consortium dedicated to the continued success and advancement of Ethernet technologies, welcomes the ratification of a bevy of key IEEE 802.3® Ethernet standards. The industry's leading voice of Ethernet, the organization applauds IEEE Standards Association's (IEEE-SA) publication of IEEE 802.3bp™, IEEE 802.3bq™, IEEE 802.3br™, and IEEE 802.3by™, noting their importance to Ethernet's continued evolution and significance as an indicator of what lies ahead.

"Ethernet is erupting in every direction. Whether you're talking new markets like automotive or historic proving grounds such as networks and data centers, Ethernet's ongoing expansion has reached critical mass. There's growing velocity behind work being done to develop the next generation of speeds, innovative technologies, and forward-looking specifications for emerging application spaces," said John D'Ambrosia, chairman, Ethernet Alliance; and senior principal engineer, Huawei. "These new standards are the latest product of the surge in enthusiastic activity permeating the Ethernet ecosystem, but they're just the tip of the iceberg – there's much more yet to come. We commend the members of IEEE 802.3 Ethernet Working Group for their efforts and congratulate them on a job well done."

Ethernet's scope continues to broaden at an unprecedented rate, impacting sectors encompassing hyperscale data centers, enterprise, cloud computing, automotive, Internet of Things (IoT), and Power over Ethernet (PoE), among others. With this unbridled growth comes increased demand for cost-efficient Ethernet and BASE-T Ethernet solutions at a variety of speeds, including 1 Gigabit per second (Gb/s), 25 Gb/s, and 40Gb/s:

- IEEE 802.3bp, "IEEE Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for 1 Gb/s Operation over a Single Twisted Pair Copper Cable", defines physical layer (PHY) specifications (including optional single-pair autonegotiation and Energy Efficient Ethernet) and parameters for full-duplex 1 Gb/s Ethernet operating in harsh environments found in automotive and industrial applications.
- IEEE 802.3bq, "Standard for Ethernet Amendment: Physical Layer and Management Parameters for 25 Gb/s and 40 Gb/s Operation, Types 25GBASE-T and 40GBASE-T", opens the door to higher-speed 25 Gb/s and 40 Gb/s twisted pair solutions with auto-negotiation capabilities and Energy Efficient Ethernet (EEE) support for data center applications.

- IEEE 802.3br, "Standard for Ethernet Amendment Specification and Management Parameters for Interspersing Express Traffic", addresses the needs of industrial control system manufacturers and the automotive market by specifying a pre-emption methodology for time-sensitive traffic.
- IEEE 802.3by, "Standard for Ethernet Amendment: Media Access Control Parameters, Physical Layers and Management Parameters for 25 Gb/s Operation", introduces cost-optimized 25 Gb/s PHY specifications for single-lane server and switch interconnects for data centers.

Ethernet's accelerating trajectory and unabated expansion will be a hot topic at the Ethernet Alliance's upcoming event, *TEF 2016: The Road to Ethernet 2026*. Focusing on the recent whirlwind of activity in Ethernet standards and technology development, the one-day discussion forum is now accepting speaking and sponsorship proposals. *TEF 2016: The Road to Ethernet 2026* will be held September 29, 2016, at the Santa Clara County Convention Center. For more information, please visit http://bit.ly/TEF2016-EthernetExpansion.

For more information about the Ethernet Alliance, please visit http://www.ethernetalliance.org, follow @EthernetAllianc on Twitter, visit its Facebook page, or join the EA 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.

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