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**IEEE 802.3™ ETHERNET BANDWIDTH ASSESSMENT REPORT PREDICTS
INCREASE IN GLOBAL TRAFFIC BY FACTOR OF 100 FROM 2010 TO 2020**

New IEEE Industry Connections Higher Speed Ethernet Consensus Group Seeks
Participation From Individuals Interested in Potential Future Ethernet Wireline Standards

PISCATAWAY, N.J., USA, 20 August 2012 – IEEE, the world's largest professional association advancing technology for humanity, today announced the approval of the IEEE 802.3™ Ethernet Bandwidth Assessment report, which shows that global bandwidth requirements of multiple application spaces are continuing an exponential climb. The report—available for download via [WEBSITE](#)—forecasts an increase in traffic of a factor of 10 by 2015 compared to 2010 and by a factor of 100 by 2020 if current trends continue.

In light of the report, IEEE is launching the IEEE Industry Connections Higher Speed Ethernet Consensus group, in order to build consensus targeting the next speed of Ethernet for wireline applications. Individuals interested in potential future Ethernet wireline standards—including users and producers of systems and components for telecommunications carriers, Internet exchanges, financial markets, data centers, multiple system operators (MSOs) networking systems, high-performance computing, network storage and servers—are invited to participate. The IEEE Industry Connections Higher Speed Ethernet Consensus group ([WEBSITE](#)) will meet at the IEEE 802.3 Interim Meeting, scheduled for 24-28 September 2012 in Geneva, Switzerland.

“We continue to seek to streamline the early stages of work of potential future Ethernet wireline standards-development activities,” said John D’Ambrosia, chair of the IEEE 802.3 Ethernet Bandwidth Assessment Ad Hoc and chief Ethernet evangelist, CTO office, Dell. “The information gathered by the Bandwidth Assessment Ad Hoc demonstrates the ongoing, exponential bandwidth growth that is happening in varying application spaces on a global

nature. The launch of the IEEE Industry Connections Higher Speed Ethernet Consensus group will facilitate an open forum to explore the start beyond 100Gb/s Ethernet.”

In creating the IEEE 802.3 Ethernet Bandwidth Assessment report, input was collected from a variety of application spaces (servers, data center networks, high-performance computing, financial markets, carrier and cable operators, Internet exchanges, the scientific community, etc.) and from different geographic regions. The report confirms that growth is being driven across multiple application spaces and markets by simultaneous increases in users, access methodologies, access rates and services (such as video on demand and social media). The report indicates that bandwidth requirements of network-aggregation nodes are growing at an even faster rate than end-station applications, which initiate the transmission and receipt of data. Among industries, the most aggressive growth rates are shown by the financial sector and data-intensive science, with compounded annual growth rates (CAGRs) of 95 percent and 70 percent, respectively.

“The report offers a simple but meaningful explanation of the underlying forces that are driving the never-ending, global bandwidth explosion,” said **ANALYST**, **TITLE** with **FIRM**. “The real-world requirements for Ethernet bandwidth obviously are going to continue to escalate, and the Ethernet community will be under pressure to keep the cost per bit falling so that manufacturers, service providers and users do not take on unsupportable costs along with the exponential rise in traffic.”

Added Paul Nikolich, chair of the IEEE 802[®] LAN/MAN Standards Committee: “The IEEE 802.3 Ethernet Bandwidth Assessment report documents a cross-industry understanding of the diverse bandwidth needs of various Ethernet applications. By doing so, it provides a critical head start for potential future development activities of Ethernet standards, as the time needed to accumulate this knowledge is significant. The report and now the work of the IEEE Industry Connections Higher Speed Ethernet Consensus group ultimately will help more quickly yield more meaningful Ethernet wireline standards.”

The IEEE Industry Connections Higher Speed Ethernet Consensus group is an IEEE-SA Industry Connections activity (<http://standards.ieee.org/develop/indconn/index.html>). Through Industry Connections, IEEE-SA facilitates like-minded organizations and individuals coming together quickly, effectively and economically to build industry consensus at strategic points in a

technology's lifecycle. Groups have the unique opportunity to leverage IEEE resources in a customized format, host workshops and conferences and produce varied content.

To learn more about IEEE-SA, visit us on Facebook at <http://www.facebook.com/ieeesa>, follow us on Twitter at <http://www.twitter.com/ieeesa> or connect with us on LinkedIn at <http://www.linkedin.com/groups?gid=1791118> or on the Standards Insight Blog at <http://www.standardsinsight.com>.

Supporting quotes

NAME, TITLE, Microsoft:

“Certainly Microsoft’s experience underscores the findings in the IEEE 802.3 Ethernet Bandwidth Assessment Ad Hoc report—that bandwidth requirements continue to explode around the world. The work that the IEEE 802.3 community and the IEEE Industry Connections Higher Speed Ethernet Consensus group specifically are doing to anticipate and address emerging marketplace need stands to prove very beneficial in helping organizations control network costs and complexity over the upcoming years.”

Arnold Nipper, CTO and COO of DE-CIX:

“DE-CIX supports the findings of the IEEE 802.3 Ethernet Bandwidth Assessment Ad Hoc. As an Internet exchange, we face a never-ending challenge to stay in front of the bandwidth demand of our customers. Solutions based on up-to-date, relevant standards make it easier and more cost-effective to do so. Consequently, we support the consensus forming efforts of the IEEE Industry Connections Higher Speed Ethernet Consensus group in galvanizing industry around the next speed step for Ethernet and streamlining potential future standards-development activities.”

Henk Steenman, chief technical officer, Amsterdam Internet Exchange (AMS-IX)

“The IEEE 802.3 Bandwidth Assessment report is the result of a great initiative where different industries showed that the overall expectation is that bandwidth consumption will keep growing for at least the near and medium term future. It also shows the need for IEEE 802.3 to keep evolving the standards to support higher data rates.”

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 <http://standards.ieee.org/>.

About IEEE

IEEE, the world’s largest technical professional association, is dedicated to advancing technology for the benefit of humanity. Through its highly cited publications, conferences, technology standards, and professional and educational activities, IEEE is the trusted voice on a

wide variety of areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics. Learn more at <http://www.ieee.org>.

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