AUTOMOTIVE and Enterprise applications are huge markets for Ethernet with over a trillion ports shipping per year. Most of these ports are BASE-T at the access layer, with both multi-mode and single-mode fiber links (MMF/SMF) further into the network. The changing needs of Wi-Fi access points and Enterprise data center devices are driving technology transitions. BASE-T ports are making the transition from 1000BASE-T to 2.5G/5G/10G BASE-T, and optical ports are moving from 10G/40G to 25/100G.

INTEROPERABILITY AND CERTIFICATION

The Ethernet Alliance is committed to leading the charge to install industry confidence in Ethernet standards through its multi-vendor interoperability demonstrations and plugfests. Our Full Certification Program takes this to the next level!

Our industry-defined Full Certification Test Plan is based on the Ethernet Fast Ethernet and products passing the test will be granted the Ethernet Alliance Full Certification Logo. The trademarked logo provides instant recognition for products based on the IEEE 802.3 PoE standard, and increases trademarked logo provides instant recognition for products based on the IEEE 802.3 PoE standard, and increases

The first generation of the program (Gen 1) certifies Type 1 and Type 2 products that use 2-Pair of wire (PoE 1), and will begin to ship. The second generation of the program (Gen 2) certifies Type 3 and Type 4 products using 2-Pair and 4-Pair of wire (PoE 2). See table below for details.

AUTOMATION, BUILDING, AND INDUSTRIAL applications are moving from older fieldbus style networks to Ethernet. This move has been accelerating over the last decade, with Ethernet as a key enabling technology for the Fourth Industrial Revolution and industry 4.0. The main themes of Industry 4.0 are Interconnection, Information Transparency, Technical Assistance and Decentralized Decisions [1]. Adopting Ethernet provides OT access to all the networking technology that IT has been developing for decades. Their multi-service aggregation needs continue to grow with support for router connections, EPON, transport network (OTN), and wired and wireless backhaul.

SERVICE PROVIDERS have driven higher speed Ethernet solutions for decades. Their multi-service aggregation needs continue to grow with support for router connections, EPON, transport network (OTN), and wired and wireless backhaul.

For digital versions of the roadmap and for latest Ethernet industry resources, please visit www.ethernetalliance.org