

Draft Call-for-Interest

John D'Ambrosia

Futurewei, U.S. Subsidiary of Huawei

28 Sept 2020

Proposed Draft Text Call-for-Interest – Beyond 400 GbE

The IEEE 802.3 2020 Ethernet Bandwidth Assessment examined a multitude of applications and forecasts a broad diversity in network traffic growth rates by 2025 ranging from 2.3x to 55.4x the amount of traffic these same applications experienced in 2017. This same assessment also examined the underlying factors of bandwidth growth, i.e. users, access rates, and applications, and highlighted the forecasted growth of these factors, which will only provide further pressure on future network bandwidth requirements. Furthermore, the COVID-19 pandemic, which occurred after the completion of the 2020 Ethernet Bandwidth Assessment, highlighted the critical role of networking in everyday life, as various applications saw double- and triple-digit growth in traffic. The importance of these networks to support the bandwidth demand of these times cannot be understated.

The development of a new Ethernet rate and physical layer solutions supporting greater than 400 Gigabit per second will provide the industry with the next solution set it needs to address the bandwidth demands of the various applications examined, such as mobile, data center, and IP video. It is also recognized that any signaling rates used for higher speed physical layer specifications may be applicable to creating physical layer specifications for existing Ethernet rates, which would enable lower cost solutions to meeting bandwidth demands throughout network architectures.

This call for interest is to request the formation of the “Beyond 400 Gigabit Ethernet” Study Group to consider the development of solutions supporting Ethernet rates greater than 400 Gigabits per second, and the application of any signaling rates used to support these solutions for physical layer specifications for existing Ethernet rates.