802.3bs CSD Modifications

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BMP – As Written

- Per the IEEE 802.3 Bandwidth Assessment Ad Hoc, bandwidth requirements, on average, for core networking applications are increasing by a factor of 10 every 5years. The definition **of 200 Gb/s and** 400 Gb/s Ethernet will address **the growing diverse bandwidth requirements and cost considerations for these** key application areas: cloud-scale data centers, internet exchanges, co-location services, wireless infrastructure, service provider and operator networks, and video distribution infrastructure.
- There has been wide attendance and participation in the study group by end users, equipment manufacturers and component suppliers. It is anticipated that there will be sufficient participation to effectively complete the standardization process.
- Prior experience scaling IEEE 802.3 and contributions to the study group indicates the cost distribution between routers, switches, and the infrastructure will remain acceptably balanced for **200 Gb/s and** 400 Gb/s Ethernet.

EF – As Written

- In consideration of balancing costs between end stations and infrastructure it is anticipated the project will examine alternatives that trade off between PMD complexity and the number of fibers in order to maintain a reasonable balance between these two costs.
- The cost factors for Ethernet components and systems are well known. The proposed project may introduce new cost factors which can be quantified. **Possible use of common technologies that support both 200 Gb/s and 400 Gb/s Ethernet would allow economies of scale to reduce cost.**
- In consideration of installation costs, the project is expected to use proven and familiar media, including single-mode and multimode optical fiber cabling technology.
- Network design, installation and maintenance costs are minimized by preserving network architecture, management, and software.
- In consideration of operational costs associated with power consumption, the project will examine alternatives that trade off PMD complexity, power, and implementation constraints. The project has adopted an objective to support Energy Efficient Ethernet, which will help reduce operational costs and environmental footprint.

BMP – Proposed Modification of Highlighted Text

- Per the IEEE 802.3 Bandwidth Assessment Ad Hoc, bandwidth requirements, on average, for core networking applications are increasing by a factor of 10 every 5years.
- Key application areas for higher bandwidth links are the following: cloud-scale data centers, internet exchanges, co-location services, wireless infrastructure, service provider and operator networks, and video distribution infrastructure.
- The definition of 200 Gb/s Ethernet will address the bandwidth requirements and cost considerations for key applications on a slower growth projection; whereas, the definition of 400 Gb/s Ethernet will address the bandwidth requirements and cost considerations for key application on a more aggressive growth projection

EF – Proposed Modification of Highlighted Text

- The cost factors for Ethernet components and systems are well known. The proposed project may introduce new cost factors which can be quantified.
- Use of common technologies that support both 200 Gb/s and 400 Gb/s Ethernet and have been developed for previous generations of Ethernet technology will permit cost comparisons to allow project participants to evaluate each solutions economic feasibility.

Thank You