SOURCE: IEEE P802.3ah Ethernet in the First Mile Task Force
TITLE: Communication to TR-42–Engineering Committee on User Premises Telecommunications Infrastructure from IEEE P802.3ah Ethernet in the First Mile Task Force

TO: Bob Jensen, Chair TR-42

Thank you for expressing interest in the Ethernet in the First Mile (EFM) Task Force activity. We also look forward to the continuation of the cooperative efforts between TIA TR-42 and IEEE 802.3.

EFM is a layered architecture. The Ethernet MAC and the current set of Ethernet physical layer devices are supported. Additionally, a new set of physical layer specifications will be added to address the environmental operating temperature, cabling distances, and media types in the first mile.

In response to your question regarding EFMs applicability to multimode fiber and premises cabling, EFM will support the current set of Ethernet physical layer devices as specified in IEEE Std 802.3:2000. In addition, we have an objective to write a specification for 1000BASE-LX (Gigabit Ethernet) extended temperature optics, and 1000BASE-LX does support operation on multi-mode fiber, as specified in clause 38 of IEEE Std 802.3:2000.

Ethernet optical links are expected to operate over a reasonable range of environmental conditions typical of premises cabling networks. The temperature and humidity conditions are not specified in the standard. The operating environmental conditions can be different in the first mile topology as compared to the premises cabling topology and therefore these considerations will require additional guidance when selecting physical layer devices.

We are actively discussing these issues within the IEEE P802.3ah EFM Task Force, and we would welcome any contributions that you or your members wish to make.

Sincerely,

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