



INTERNATIONAL TELECOMMUNICATION UNION
**TELECOMMUNICATION
 STANDARDIZATION SECTOR**
 STUDY PERIOD 2022-2024

SG15-Cn
STUDY GROUP 15
Original: English

Question(s): ALL/15

Montreal, Canada, 1-12 July 2024

CONTRIBUTION

Source: IEEE

Title: Proposal to publish IEEE Std 802.3 as an ITU-T Recommendation

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Abstract: This contribution contains the A.1 justification for the proposed draft new Recommendation ITU-T **Y.xyz** "Ethernet"

Discussion

There has been long-standing cooperation between IEEE 802.3 and ITU-T SG15 including many liaison communications and joint workshops. An example of the results of this cooperation is the encoding of high-speed optical IEEE 802.3 Ethernet to enable transparent transport of Ethernet across the Optical Transport Network specified by ITU-T SG15 avoiding cost for the user. In addition, ITU-T SG15, as well as ITU-T SG5, extensively references IEEE 802.3, but that currently requires an ITU-T A.5 reference justification for every instance of such a reference. The cooperation can be built upon, and the need for ITU-T A.5 reference justification avoided, if the IEEE 802.3 Ethernet standard were to be available as an ITU-T document. This contribution, therefore, propose making the IEEE 802.3 Ethernet standard available as an ITU-T Recommendation through referencing of IEEE Std 802.3-2022 'IEEE Standards for Ethernet' and its approved amendments.

As IEEE Std 802.3 continues to evolve over time, it will likewise be necessary to update Recommendation **Y.xyz**. Updates will be driven by liaison statements. The IEEE 802.3 Working Group will inform SG15 about the approval of revisions of IEEE 802.3 or amendments to IEEE 802.3, and this will then trigger the editor(s) of **Y.xyz** to prepare draft revisions or amendments to the ITU-T Recommendation referencing IEEE 802.3 for consent.

Proposal

A work item for new Recommendation **Y.xyz** should be initiated. A draft A.1 justification is in Annex A of this contribution.

Annex A – A.1 justification

A.1 justification for proposed draft new ITU-T Y.xyz "Ethernet"

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|--|--|--|----------------------------------|
| Question: | ALL/15 | Proposed new ITU-T Recommendation | Montreal, Canada, 1-12 July 2024 |
| Reference and title: | ITU-T Y.xyz "Ethernet" | | |
| Base text: | SG15-Cnnn | Timing: | 2024-?? |
| Editor(s): | Tom Huber, Nokia, tom.huber@nokia.com | Approval process: | AAP |
| <p>Scope (defines the intent or object of the Recommendation and the aspects covered, thereby indicating the limits of its applicability):</p> <p>This new draft Recommendation defines Ethernet local area, access and metropolitan area networks. Ethernet is specified at selected speeds of operation; and uses a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared medium (half duplex) operation, as well as full duplex operation. Speed specific Media Independent Interfaces (MIIs) provide an architectural and optional implementation interface to selected Physical Layer devices (PHYs). The Physical Layer encodes frames for transmission and decodes received frames with the modulation specified for the speed of operation, transmission medium and supported link length. Other specified capabilities include: control and management protocols, and the provision of power over selected twisted pair PHY types.</p> | | | |
| <p>Summary (provides a brief overview of the purpose and contents of the Recommendation, thus permitting readers to judge its usefulness for their work):</p> <p>The purpose of this new draft Recommendation would be to build upon the existing cooperation between IEEE 802.3 and ITU-T SG15 and avoid the need for ITU-T A.5 reference justification, by making the IEEE 802.3 Ethernet standard available as an ITU-T Recommendation. The contents of this new draft Recommendation would define Ethernet through referencing of IEEE Std 802.3-2022 'IEEE Standards for Ethernet' and its approved amendments.</p> | | | |
| <p>Relations to ITU-T Recommendations or to other standards (approved or under development):</p> <p>G.709, G.709.1, G.709.5, G.8023, G.8010</p> | | | |
| <p>Liaisons with other study groups or with other standards bodies:</p> <p>IEEE 802.3 Ethernet Working Group</p> | | | |
| <p>Supporting members that are committing to contributing actively to the work item:</p> <p>IEEE, [others?]</p> | | | |