IEEE 802.3 Ethernet Working Group
EC REVIEW DRAFT Liaison Communication

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Subject: Liaison reply to ITU-T SG15: HNT Standardization Work Plan

Approval: Agreed to at IEEE 802.3 plenary teleconference meeting, 23rd July 2020

Dear Mr Trowbridge and members of ITU-T Study Group 15,

Thank you for your liaison statement from February 2020 concerning the HNT Standardization Work Plan.

The following provides an update on the current status of HNT related documents and work within the IEEE 802.3 working group (HNT Standards Overview and Work Plan, Section 6/IEEE/IEEE802.3):

IEEE Std 802.3-2018, *Standard for Ethernet* is the current revision. This revision has nine approved amendments, IEEE Std 802.3cb-2018, IEEE Std 802.3bt-2018, IEEE Std 802.3cd-2018, IEEE Std 802.3cn-2019, IEEE Std 802.3cg-2019, IEEE Std 802.3cq-2020, IEEE Std 802.3cm-2020, IEEE Std 802.3ch-2020, and IEEE Std 802.3ca-2020.

[1] This document solely represents the views of the IEEE 802.3 Working Group, and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE 802.

The following are example HNT applicable technologies in IEEE Std 802.3-2018 (including its amendments):

- The 10BASE-T, 100BASE-TX and 1000BASE-T specifications for operation over various grades of twisted pair cabling have long been used as a home networking technology, and they continue to be applicable.
- Home gateways typically include both IEEE Std 802.11 specified capabilities and either 10/100 Mb/s or 10/100/1000 Mb/s Ethernet ports.
- 2.5GBASE-T, 5GBASE-T and 10GBASE-T provide a migration path for higher bandwidth home networks.
- 1000BASE-RHA is a plastic optical fiber port type targeted for home networks.
- Fiber optic Ethernet port types would be applicable to HNT especially in cases where a non-conductive medium is required. It is appropriate to note that BASE-T port types are not specified for outdoor cable installations.
- For access to the home, the approved standard includes various speeds of operation for Ethernet Passive Optical Networks.
- The standard also includes DTE Power via the MDI (also called Power over Ethernet) capabilities applicable to HNT (e.g., to provide power to security equipment). These specifications include multiple options for BASE-T cabling with options for amount of power provided to the Powered Device.

Other optional Ethernet capabilities have relevance to HNT including:

- Time Sensitive Networking related functions appropriate to support applications running over HNT, and Energy-Efficient Ethernet specifications for many port types to reduce energy consumption.
- IEEE Std 802.3.1-2013 specifies SNMP management modules for various Ethernet port types and capabilities. IEEE Std 802.3.2-2018 YANG Data Model(s) specifies YANG data models for selected Ethernet port types.

Much of the current work within the IEEE 802.3 Working Group (current activities are listed on the 802.3 home page http://ieee802.org/3) may not be applicable to HNT, but a few recent and current activities are highlighted below as possibly related.

- Two maintenance projects IEEE P802.3cr Isolation (Maintenance #14), and IEEE P802.3cv (Maintenance #15) are updating IEEE Std 802.3 to implement editorial and technical corrections, refinements, and clarifications for Power over Ethernet.
- The recently completed IEEE Std 802.3ca-2020, 25 Gb/s and 50 Gb/s Ethernet Passive Optical Networks, and in development IEEE P802.3cp Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs Task Force, and IEEE P802.3cs Increased-reach Ethernet optical subscriber access (Super-PON) will provide enhancements for home access networks.
- The P802.3cx, Improving PTP Timestamping Accuracy Task Force will specify higher precision time stamping, which may find HNT applications.
- The P802.3da, 10SPE Multidrop Enhancements Task Force is targeting industrial, building and other markets, but may potentially find applications in smart homes.

The contact information for the chair of IEEE 802.3 in Section 7 is current.

We wish to thank the leadership and members of ITU-T SG15 for the opportunity to coordinate references to our work programs and we look forward to such continuing cooperation with ITU-T SG15 in the future.

Sincerely,
David J. Law
Chair, IEEE 802.3 Ethernet Working Group