IEEE 802.3 Ethernet Working Group
Liaison Communication

Source:	IEEE 802.3 Working Group[1]	
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Subject:	Liaison reply to ITU JCA-IMT2020 to update IEEE 802.3 information in the ITU IMT-2020 roadmap	
Approval:	Agreed to at IEEE 802.3 interim meeting, Long Beach, CA, USA, 17th January 2019	

Dear Mr Mansfield,

Thank you for the opportunity to update and contribute to the IMT-2020 Roadmap with current IEEE 802.3 Working Group projects. Activities in IEEE 802.3 Working Group relevant to the IMT-2020 Roadmap, along with current status of the activities, are shown below.

Sincerely,
David Law
Chair, IEEE 802.3 Ethernet Working Group

[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.

Activity Domain: IMT-2020
Stage (topic): Requirements

Entity	Title of deliverable	Scope of deliverable	Current status	Starting date	Target date
IEEE Std 802.3-2018	Standard for Ethernet	This standard 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 entities (PHY). 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.	Standard	N/A	N/A
IEEE P802.3ca	Physical Layer Specifications and Management Parameters for 25 Gb/s and 50 Gb/s Passive Optical Networks	The scope of this project is to amend IEEE Std 802.3 to add physical layer specifications and management parameters for point-to-multipoint passive optical networks supporting MAC data rates of 25 Gb/s, or 50 Gb/s, in the downstream direction and 10 Gb/s, 25 Gb/s, or 50 Gb/s in the upstream direction, with distance and split ratios consistent with those defined in IEEE Std 802.3. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as MultiPoint Control Protocol (MPCP) and Operation Administration and Management (OAM).	Draft	2016.01	2020.02
IEEE Std 802.3cc-2018	Physical Layer and Management Parameters for Serial 25 Gb/s Ethernet Operation Over Single-Mode Fiber	The scope of this project is to add point-to-point single-mode fiber Physical Medium Dependent (PMD) options for serial 25 Gb/s operation at reaches greater than 100 m by specifying additions to, and appropriate modifications of, IEEE Std 802.3.	Standard	N/A	N/A
IEEE Std 802.3cd-2018	Media Access Control Parameters for 50 Gb/s and Physical Layers and Management Parameters for 50 Gb/s, 100 Gb/s, and 200 Gb/s Operation	Define Ethernet Media Access Control (MAC) parameters, Physical Layer specifications, and management parameters for the transfer of Ethernet format frames at 50 Gb/s over copper and optical media. Define additional Physical Layer specifications and management parameters at 100 Gb/s over copper and optical media. Define additional Physical Layer specifications and management parameters at 200 Gb/s over copper and multimode fiber physical media.	Standard	N/A	N/A

IEEE P802.3cn	Physical Layers and Management Parameters for 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s Operation over Single-Mode Fiber and DWDM (dense wavelength division multiplexing) systems	Define physical layer specifications and management parameters for the transfer of Ethernet format frames at 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s at reaches greater than 10 km over single-mode fiber and DWDM systems. Make TDECQ (Transmitter and dispersion eye closure for PAM4) related changes to existing 200 Gb/s and 400 Gb/s physical medium dependent sublayers over single-mode fiber.	Draft	2018.11	2021.02
IEEE P802.3cp	Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs	The scope of the project defines physical layer specifications and management parameters for symmetric bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s operation over single strand of single mode fiber of at least 10 km.	Draft	2018.05	2022.05
IEEE P802.3cs	Physical Layers and management parameters for increased-reach point-to-multipoint Ethernet optical subscriber access (Super-PON)	This amendment adds physical layer specifications and management parameters for optical subscriber access supporting point-to-multipoint operations using wavelength division multiplexing over an increased-reach (up to at least 50 km) passive optical network (PON).	Draft	2018.12	2022.08