IEEE 802.3
Call for Interest
Automotive Ethernet: Beyond 10 Gb/s Electrical PHYs
Opening Report

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CFI Request

Ethernet data rates in automobiles are being driven by the push to fully-autonomous operation. 100BASE-T1 and 1000BASE-T1 are already in vehicles, and 2.5 Gb/s, 5 Gb/s and 10 Gb/s links (IEEE P802.3ch) are being designed in for model year 2023. With the move from domain-based architecture to zonal-based architecture, 10G+ links (typically redundant) between the electronic control units (ECU) will be required.

Latest generation sensors (cameras, lidar, etc.) may transmit uncompressed data at rates greater than 10 Gb/s. "Black-box" data recorders also require 10G+ to handle the greater than 4 TB of data produced per day in autonomous cars.

Test vehicles are under development using standard 25 Gb/s and 50Gb/s Ethernet, and will require an automotive Ethernet version for production. In order to meet the design cycles of the auto industry, the time to start this effort is now.

Logistics

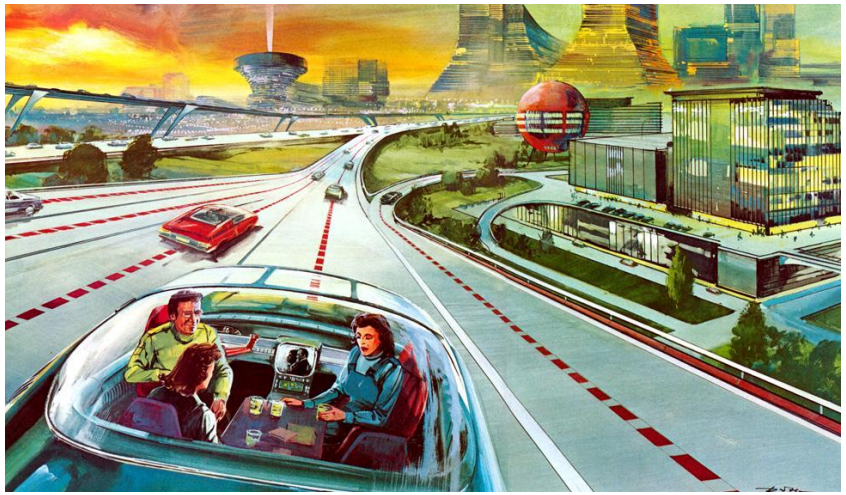
An overview presentation session will be given to support consensus building:

- Date - Tuesday, March 12th
- Time – 6:30 to 7:30pm
- Location – British Columbia room – FHV Conference Level
- CFI Presentation:

http://www.ieee802.org/3/cfi/request_0319_1.html

The request to form a Study Group will occur during the closing 802.3 WG Plenary on Thursday

Questions?



Thank you!