



802.3 Responses to comments on P802.3cz PAR and CSD

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802.3CZ AMENDMENT: MULTI-GIGABIT AUTOMOTIVE OPTICAL PHYS, [PAR](#) and [CSD](#)

**PAR 2.1 Title: “Optical Automotive Ethernet” for 802.3.cy it was
“Automotive Electrical Ethernet” suggest making the titles more
consistent. – Both TF would need to be involved in discussion.**

**Possible title : Physical Layer Specifications and Management Parameters for
Multi-Gigabit Optical Ethernet for the Automotive Environment”**

**CSD: version submitted was watermarked “DRAFT”. Consider updating
when submitting to the IEEE 802 LMSC.**

Responses to 802.11 (1)

PAR, 2.1, Title

- “Automotive Ethernet” is an industry term (<https://events.weka-fachmedien.de/automotive-ethernet-congress/home/>), (<https://standards.ieee.org/events/automotive/>) and will be found in magazine and technical papers. We want to use the term, but need to differentiate between the electrical and optical projects.

The P802.3cy title is expected to change to more closely resemble P802.3cz:

P802.3cy: Physical Layer Specifications and Management Parameters for greater than 10 Gb/s Electrical Automotive Ethernet

P802.3cz: Physical Layer Specifications and Management Parameters for Multi-Gigabit Optical Automotive Ethernet

Responses to 802.11 (2)

CSD watermark

- Thank you, the draft CSD with changes in response to comments are expected to be approved 21 May by the 802.3 WG. A replacement document will be provided, and though still a draft until 802 Executive Committee approval will not be watermarked.

CSD

Economic Feasibility

- *“The balance of costs between infrastructure and attached stations is not applicable to the automotive environment.”*
 - This statement is unclear to 802.1. Infrastructure includes bridges and routers, and we believe there are both infrastructure and attached stations within the automotive environment. Furthermore, we believe the balance of costs between these components of the solution is critical to the success of 802 technologies in the automotive environment.
 - Please clarify your evaluation of the balance of costs.
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Responses to 802.1

CSD, Economic Feasibility, Balanced Costs

➤ Reject.

In subclause 14.2.5 'Economic Feasibility' of the IEEE 802 Operations Manual you will find that it reads 'Balanced costs (infrastructure versus attached stations)'. Subclause 3.1 'Definitions' of IEEE Std 802-2014 IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture defines 'station' as 'An end station or bridge. See also: bridge; end station.' and 'end station' as 'A functional unit in an IEEE 802® network that acts as a source of, and/or destination for, link layer data traffic carried on the network.'

As a result the IEEE 802 Overview and Architecture defines both a bridge and a router (as a source and destination for link layer data traffic carried on the network) as a station. Since this criteria includes the text 'infrastructure versus attached stations', and since both a bridge and a router is a station, and therefore cannot be infrastructure, The statement 'Infrastructure includes bridges and routers ...' in the IEEE 802.1 comments is not correct.

We assert that neither infrastructure as defined nor your inclusion of bridges and routers into infrastructure apply to automotive networks because they are very different from enterprise networks and other network types where 802 technologies have traditionally been applied. An automotive network is precisely engineered from qualified subsystems (e.g., cable harness, electronic control units, etc.); and then replicated millions of times for installation in individual vehicles. Unlike an enterprise network, bridge and router functionality may not be a distinct device in an automotive network, e.g., it may be one function of a electronic control unit which may also include functions that might be considered a server in an enterprise network.



Thank You!