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Submitter Email: janos.farkas@ericsson.com
Type of Project: New IEEE Standard
PAR Request Date: 09-Sept-2018
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, PAR for a New IEEE Standard

1.1 Project Number:
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Time-Sensitive Networking Profile for Automotive In-Vehicle Ethernet Communications

3.1 Working Group: Higher Layer LAN Protocols Working Group (C/LM/WG802.1)
Contact Information for Working Group Chair
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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
Contact Information for Sponsor Chair
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 01/2022
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 09/2022

5.1 Approximate number of people expected to be actively involved in the development of this project: 40
5.2 Scope: This standard specifies profiles for high reliability, deterministic latency, in-vehicle Ethernet networks based on IEEE 802.1 TSN (time-sensitive networking) and security standards.

5.3 Is the completion of this standard dependent upon the completion of another standard: Yes
In addition to the published IEEE 802.1 standards, it is anticipated that the following standards will be used:
P802.1AS-Rev (for common in-vehicle time synchronization)
P802.1Qcr (for Asynchronization Traffic Shaping)
P802.1CS (for reservations by managing point-to-point link object registration)
P802.1Qdd – (to support latency calculations and reporting)
5.4 Purpose: This standard provides guidance for designers and implementers of Automotive Ethernet networks that support the entire range of in-vehicle applications including those depending on secure, high availability and reliability, maintainability, and bounded latency communications.
5.5 Need for the Project: The Automotive segment does not have a standards-based profile to define a subset of the new IEEE 802 Time-Sensitive Network (TSN) standards as usage can vary widely based on the networking scenarios. This makes an OEM definition of requirements to Tier 1&2 suppliers and implementation more difficult and costly. Thus there is a need for guidelines for the selection and the use of IEEE 802 standards and features in order to be able to deploy secure highly reliable converged networks.

5.6 Stakeholders for the Standard:

Developers, providers, Tier 1&2 suppliers, and users of networking services and components for Automotive Ethernet networked equipment. These components may include bridges, end stations, network interface cards, and integrated circuits.

Intellectual Property
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No
6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No
7.2 Joint Development
   Is it the intent to develop this document jointly with another organization?: No
    Organization:
    Technical Committee Name:
    Technical Committee Number:
    Contact Name:
    Phone
    Email:

8.1 Additional Explanatory Notes:
For WG discussion not for inclusion in PAR form [
- This project is not a joint development, however, this work will be done with individual contributions from AUTOSAR WPA-2 Working group members (https://www.autosar.org) and the AVNu Alliance Automotive members (https://avnu.org/automotive/)
- Within our profile we cannot specify anything that non-802.1 groups would be required to do. We can only specify how we will use other standards and what requirements we may put upon a set of optional values that non-802.1 standards may enumerate (i.e. we may restrict the set of non-802.1 optional values to meet a particular performance requirement that we have in our profile).
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