IEEE P802.1DG – Time-Sensitive Networking Profile for Automotive In-Vehicle Ethernet Communications

Call for Participation

The IEEE Standards Association (IEEE-SA) invites all interested parties to actively participate in the effort on IEEE P802.1DG – Time-Sensitive Networking Profile for Automotive In-Vehicle Ethernet Communications. The project has been established to ensure that experts are involved in defining the use of IEEE 802.1 Time-Sensitive Networking (TSN) for automotive in-vehicle Ethernet communications. The more participation, the better this profile will represent the needs of the entire industry.

Participation can include requirements and/or designs for:
- Reliable latency
- Redundancy
- Security
- Time synchronization
- Other topics related to determinism and reliable communication

Scope

The purpose of the IEEE 802.1DG standard is to describe the use of Ethernet bridged networks based on IEEE standards in automotive in-vehicle networks. The IEEE 802.1DG standard specifies profiles for secure, highly reliable, deterministic latency, automotive in-vehicle bridged IEEE 802.3 Ethernet networks based on IEEE 802.1 Time-Sensitive Networking (TSN) standards and IEEE 802.1 Security standards.

Need for the Project

The automotive segment does not have a standards-based profile for IEEE 802.1 Time-Sensitive Networking (TSN) standards as usage can vary widely based on the networking scenarios. The lack of a profile makes the definition of the automotive manufacturer's requirements and the implementation of those requirements by suppliers more difficult and costly. Thus, there is a need for standardization of the selection and use of IEEE 802 standards and features in order to be able to deploy secure highly reliable converged networks.

Stakeholders for the Standard

Developers, providers, automotive manufacturers and 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.

Upcoming Meetings

The best way to get involved in the project is to attend face-to-face or virtual meetings (teleconferences) as listed on the IEEE 802.1 page. The next meetings will be held 20-24 May 2019 in Salt Lake City, UT, USA, then 14-19 July 2019 in Vienna, Austria. A special one-day interim will be held 23 September 2019 in Warren, MI, USA, immediately preceding the IEEE-SA Ethernet & IP @ Automotive Technology Day. Interested parties are welcome to register and attend, and can also join the IEEE 802.1 email list.

Participation

If you would like to participate in the IEEE P802.1DG project, please contact John Messenger, acting working group chair and/or Craig Gunther, task group vice-chair, with the following information:

- Your name and email address
- Name of your employer or other affiliation
- Particular areas of interest and relevant background/expertise