Title: Liaison to Ultra Ethernet Consortium
From: IEEE802.1
For: Action
Contact:

To: J. Metz, Chair, Ultra Ethernet Consortium, j.metz@amd.com
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Date:

Through this liaison, the IEEE 802.1 Working Group would like to inform UEC of its ongoing activities related to high-performance datacenter networking, including efforts specifically targeting AI applications.

IEEE 802.1 has historically specified datacenter network technologies such as Priority-based Flow Control (PFC) and Quantized Congestion Notification (QCN), and in recent years has extended its focus to address the emerging requirements of AI network scenarios.

Currently, two key efforts are underway:

- IEEE 802 NENDICA AI Computing Network (AICN) study item: Upon completion, this study will produce a report analyzing key requirements and challenges for AI training and inference networks, while also identifying potential areas for future standardization work.
- IEEE P802.1Qdw Source Flow Control (SFC) project: This project aims to specify enhancements to flow control mechanisms, addressing inherent limitations of PFC—such as head-of-line blocking and the risk of deadlock.

More information about the AICN study item can be found here:
https://1.ieee802.org/nendica-aicn/
More information about the P802.1Qdw project can be found here:
https://1.ieee802.org/tsn/802-1qdw/

We are aware of the formation of UEC and its potential relevance to IEEE 802.1's work, as referenced in the IEEE 802.3 Ethernet Working Group's liaison communication:
https://www.ieee802.org/1/files/public/docs2023/liaison-UEC-IntroToUECFrom8023-1023.pdf

Accordingly, we invite UEC as an organization and its individual members to participate in the ongoing development of IEEE 802.1 datacenter networking standards/reports. We

encourage participation through the following methods:

- Presentations from UEC outlining Ethernet network requirements in AI datacenters, along with updates on UEC's progress in developing related technical specifications;
- Presentations from individual UEC members and their companies describing additional needs;
- Sharing of UEC documents relevant to the development of the AICN study item or the P802.1Qdw project. At UEC's request, these documents can be stored in a secured, password-protected area.

We encourage this type of collaboration between our two organizations and anticipate a similar request from UEC requesting IEEE 802.1 share their relevant documents with UEC. We would also invite UEC and its members to participate in our working processes as we advance these efforts.

You are invited to join and contribute to the development of AICN study item by means of the IEEE 802.1 NENDICA teleconference calls and face-to-face meetings, where new IEEE802.1 standard projects can be incubated.

- IEEE802 NENDICA calls held bi-weekly on Thursday (no registration fee required)
- IEEE 802.1 interims held in January, May, September; and IEEE 802 plenaries held in March, July, November.

You are also invited to join and contribute to the development of P802.1Qdw by means of the IEEE 802.1 TSN TG teleconference calls and face-to-face meetings.

- TSN TG calls held weekly on Monday (no registration fee required)
- IEEE 802.1 interims held in January, May, September; and IEEE 802 plenaries held in March, July, November.

Note that the IEEE 802 process is open and contribution driven. Participation is on an individual basis and technical discussion can be conducted based on individual contributions.