

IC17-001

IEEE 802 NETWORK ENHANCEMENTS FOR THE NEXT DECADE

- ❑ **Chair: Roger Marks, Affiliation: EthAirNet Associates, Huawei**
- ❑ **Participants: considering 24 meetings conducted under IC17-001-03 (2021-09-20 through 2022-04-14)**
 - ❑ 84 unique participants
 - ❑ 19 average attendance per meeting
- ❑ **Procedures:**
 - IEEE 802 Policies & Procedures
 - IEEE 802 LMSC Operations Manual
 - IEEE 802 Working Group Policies & Procedures
 - IEEE 802 Nendica Report Development Process
<<https://1.ieee802.org/802-nendica/ieee-802-nendica-procedures>>
- ❑ **Deliverables Listed in the Approved ICAID: (This section will be repopulated by the Industry Connections Administrator. DO NOT MODIFY)**

Deliverables will be of two types:

1. Records of the meetings, including minutes and supporting documents, some of which may be prepared for delivery to other venues for purposes such as encouraging interest and participation
2. A set of reports and other consensus outputs documenting the findings of the IC activity, with recommendations regarding overviews of current industry practice and trends, new standardization topics, documentation of use cases and user needs for those topics, and proposed organizational approaches to ensure effective participation from user communities

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□ Status of Deliverables:

- List the status and target completion date for each deliverable
- Provide % of completion per deliverable
- Provide a brief description of the % completed

Deliverables will be of two types:

1. Records of the meetings, including minutes and supporting documents, some of which may be prepared for delivery to other venues for purposes such as encouraging interest and participation - **100% Complete (fully caught up with reporting per meeting; more records to follow in relation to future meetings)**

2. A set of reports and other consensus outputs documenting the findings of the IC activity, with recommendations regarding overviews of current industry practice and trends, new standardization topics, documentation of use cases and user needs for those topics, and proposed organizational approaches to ensure effective participation from user communities - **50% Complete: Evolved Link Layer Architecture [ELLA] Report (outlined PAR for revision of IEEE Std 802, now an authorized project in 802.1 Working Group; considering plan for PAR for amendment of IEEE Std 802)**

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□ **Additional Accomplishments:**

- Accomplishments beyond the expected deliverables
 - Vetting of new topics for IEEE 802.1 WG:
 - PFC headroom (led to draft PAR P802.1Qdt)
 - Pulsed Queuing: vetted and transitioned to 802.1 TSN Task Group
 - Source Flow Control: vetted and transitioned to 802.1 TSN Task Group
 - Cut-Through Forwarding: vetted and transitioned to 802.1 PAR Proposal
 - Joint meetings underway with 802.3 NEA ICA
 - Additional topics discussed:
 - Low Latency Ethernet
 - Open, Softwarized, Data-Driven 802 Networks
 - Elastic Ethernet Networking for Industry

□ **Future Meetings:** Schedule of upcoming meetings

- <https://1.ieee802.org/802-nendica/nendica-meetings/>
 - Weekly, Thursdays, 09:00-11:00 ET
 - Additional, joint with New Ethernet Applications ICA (IC15-005)

□ **Issues:** Any major issues to be addressed; Any areas where the IEEE-SA Industry Connections Committee (ICCom) might be able to help

- See following slide

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□ Issue: pre-PAR discussions

□ IEEE SA Industry Connections Committee Operations Manual (IC OpsMan)

□ https://standards.ieee.org/wp-content/uploads/import/governance/iccom/iccom_opsman.pdf

□ *Industry Connections activities provide an efficient environment for building consensus and developing many different types of shared results. Such activities may complement, supplement, or be precursors of IEEE Standards projects, but they do not themselves develop IEEE standards.*

□ However, it also says: *IC activities shall avoid development of work products that should be undertaken through the IEEE SA PAR/Standards Development process or the ISTO process.*

□ Does this mean to include “shall avoid development of work products that should be undertaken through the IEEE SA PAR Development process.” If so, what is the specific IEEE SA PAR Development process?

□ As of January 2022, the Industry Connections web page said “Industry Connections Activities may propose a new standard by **submitting** a project authorization request (PAR).” That has been removed and not replaced.

□ Nendica Status

□ Nendica ICAID “Motivation and Goal” includes “*facilitate building industry consensus towards proposals to initiate new standards development efforts... Topics concerning higher-layer applications related to new standards development in the IEEE 802.1 Working Group are also specifically expected and encouraged... Findings related to existing IEEE 802 standards and projects are forwarded to the responsible working groups for further considerations.*” Proposed Deliverables include “*new standardization topics, documentation of use cases and user needs for those topics, and proposed organizational approaches to ensure effective participation from user communities.*”

□ There is no proposal for Nendica to develop standards, nor to submit PARs.

□ Nendica has held pre-PAR discussions and has made recommendations about possible PARs to the 802.1 WG. These activities are (per the IC OpsMan) potential “precursors of IEEE Standards projects.”

□ Some individuals have indicated a view that these activities conflict with the IC OpsMan.

□ ICom could help Nendica by providing guidance: Is an ICA precluded from submitting a PAR? Drafting a PAR? Drafting aspects of a potential PAR? Outlining a possible PAR? Discussing the need for a PAR? Making recommendations about a PAR?