

# Planning for IEEE Std 802 Revision

Roger Marks  
(EthAirNet Associates; Huawei)  
[roger@ethair.net](mailto:roger@ethair.net)

+1 802 capable

11 November 2021

# IEEE Std 802: Overview and Architecture

- Maintained by 802.1 WG
- Originally IEEE Std 802-1990
  - Note: IEEE 802 was initiated ten years earlier.
- Revision IEEE Std 802-2001
- Revision IEEE Std 802-2014
- Amendments
  - IEEE Std 802d-2017: Allocation of Uniform Resource Name (URN) Values in IEEE 802 Standards
  - IEEE Std 802c-2017: Local Medium Access Control (MAC) Address Usage
  - P802f: Amendment: YANG Data Model for EtherTypes (WG ballot)

# Procedural issues mandate a revision, now

- Reason:
  - No new amendments beyond three, per SA Standards Board
- Bigger Reason:
  - *an IEEE standard may remain continuously active only if a revision process for that standard is completed and approved within 10 years from the date that the standard was approved or last revised*
  - *If the revision project has not been completed and approved by Year 10, the approved standard will be transferred to inactive-reserved status.*
- Need to complete a revision within 3 years.
  - Pressure to open a PAR ASAP (March 2022)
- Do we need more than a maintenance roll-up?
  - Many discussions indicate that we do.

# Discussion activities status

- Evolved Link Layer Architecture [ELLA]: Nendica Study Item <https://1.ieee802.org/nendica-ella> opened in July 2021
- IEEE 802 Restructuring ad hoc opened a Technical Coherence sub-ad hoc, which met 3 times in June/July, discussed ELLA, and agreed unanimously:
  - *A project to revise IEEE Std 802 should be initiated.*
  - *The project should be charged with ambitious but documented goals.*
  - *The goals should be specified in a consensus report to accompany the PAR.*
  - *The report and PAR could be generated by a focused pre-PAR activity, conducted in, for example, a Study Group or an Industry Connections Activity such as Nendica.*
- IEEE 802 Restructuring ad hoc reviewed the Technical Coherence sub-ad hoc report
- ELLA continued progress
- 802.1 Chair announced Technical Plenary series starting Dec 2.
- 802.1 Maintenance TG met Nov. 9 and discussed revision PAR
  - Considered possible homes for a PAR development
  - Concluded that it would not propose a PAR in Maintenance TG

# PAR Issues

- Schedule, to get a PAR activated in March 2022
  - SASB vote: March 24
  - NesCom vote: March 23
  - EC vote: March 18
  - 802 submittal deadline: Feb 11 (30 days before Plenary Session)
  - NesCom submittal deadline: Feb 11
- Need a draft PAR by Feb 11 for submittal to both 802 and NesCom
  - Presuming that 802 Plenary runs per current schedule
- Is a CSD needed?
  - *“PARs that which introduce no new functionality are exempt from the requirement to provide a CSD statement. Examples of such PARs are: ... PARs to consolidate documents.”*
  - Significant gaps in IEEE Std 802 have been suggested.
  - Recent precedent: P802.15.3ma (under review this month) is a revision project that included a CSD.
  - The group developing the PAR should create the CSD or choose not to.

# PAR/CSD Preparation Issues

- Development of the standard, following PAR approval, should be in an 802.1 Task Group (Maintenance TG would be typical)
- Development of the PAR & CSD, though, need not be in a TG
- Nendica, or a Study Group, could develop PAR & CSD, if assigned
  - Either has an advantage over a TG in decision-making
    - in a TG, only 802.1 members are voters
    - Nendica or a Study Group are more open to participants throughout 802, and decisions can be made by 75% vote
- New Study Group setup involves significant overhead
- PAR & CSD development is within the Nendica ICAID
  - *document emerging requirements and directions for IEEE 802 networks*
  - *identify commonalities, gaps, and trends not currently addressed by IEEE 802 standards and projects*
  - *facilitate building industry consensus towards proposals to initiate new standards development efforts*
  - *Encouraged topics include ... enhanced cooperative functionality among existing IEEE standards in support of network integration.*
  - *Findings related to existing IEEE 802 standards and projects are forwarded to the responsible working groups for further considerations.*
  - *Deliverables... “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*
- Nendica, as developer, should isolate PAR/CSD-specific meetings from general Nendica meetings

# Possible Nendica Motion, 2021-11-11

- To request the following motion of the 802.1 WG: “802.1 authorizes Nendica to generate a PAR and, if appropriate, CSD for pre-circulation to the March IEEE 802 Plenary Session for a revision to IEEE Std 802, taking into account information from the 802.1 Technical Plenary.”
- Note:
  - The implicit deadline here is Feb 11.
    - 87 days from 802.1 Closing Plenary of Nov 16
  - The deadline could be set as end of the January 802 Interim (Jan 21); however:
    - This would reduce the development time from 87 days to 66 days (76%)
    - Setting the 802.1 Interim as a deadline is 802.1-centric and less friendly to other WGs
      - e.g., 802.11 Interim is scheduled Jan 17-25
      - e.g., 802.3 Interim is scheduled Jan 10-22
      - so it would be difficult to get and coordinate the attention of participants the week of Jan 21