Planning for IEEE Std 802 Revision

audio/video presentation: https://vimeo.com/647094757

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IEEE 802.1 WG Motion, 2021-11-16

- *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*
  - Proposed: Ludwig Winkel
  - Seconded: Dieter Pröll
  - WG vote (y/n/a): 41/1/8
  - Approved by IEEE 802.1 WG, 2021-11-16

- Notes:
  - Development of the standard, following PAR approval, would be in an 802.1 Task Group (e.g., Maintenance TG)

Schedule

- 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)
    - if 802 Plenary runs per current schedule
    - CSD and other report (if submitted) due to 802 with PAR
  - NesCom submittal deadline: Feb 11
- Need a draft PAR by Feb 11 for submittal to both 802 and NesCom
    - 85 days from November 16
    - 12 weeks
      - with many holidays and January interims to work around

CSD Applicability

- Is a CSD [Criteria for Standards Development statement] 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.
  - If the intent is to add functionality, a CSD should be submitted.
- Is a report needed?
  - Nendica motion (2021-07-22): *For Nendica to initiate a Study Item on Evolved Link Layer Architecture (ELLA), with the goal of producing, by the November 802 Plenary, an informal report documenting:*
    - *Summary of aspects missing from current IEEE 802 Architecture documentation*
    - *Potential benefits enabled by additional architectural details*
    - *Impact of new and evolving technologies on architecture*
    - *Architectural optimization in specific network environments*
    - *Possible standardization recommendation*

IEEE 802 Restructuring ad hoc

- 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 Std 802: Overview and Architecture

- Maintained by 802.1 WG
- Originally IEEE Std 802-1990
  - Note: IEEE 802 was initiated ten years earlier.
  - originally known as IEEE Std 802.1A
- 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.
  - To be decided within Nendica.

802.1 WG Technical Plenary

- 802.1 Chair announced Technical Plenary series
  - starting Dec 2, 16:00 – 18:00 ET
- This series of meetings would:
  - Provide wider awareness for the need to revise IEEE Std 802
  - Provide an opportunity to discuss the content – notably should it be the same or should it add more architecture
  - Provide examples of the current 802 architecture (i.e., spread around in 802, .1Q, .1AC, .3, .11, .15.x, …)
  - Identify gaps in the current architecture
- In addition, this would provide the opportunity to discuss technical points across all WGs, for example:
  - MAC service interface (and its support of 802 MAC/PHYs)
  - 48 and 64 bit bridging
  - Protocol IDs and their encoding – Length/Type and LLC
- Attendance is open to all 802 WG participants. WG chairs are invited to identify at least one voting member to attend.
- Topics for discussion can be proposed to the 802.1 WG chair. The agenda and topics for this meeting will be posted 14 days in advance.

IEEE Std 802 Revision PAR/CSD

- Develop the PAR within ELLA
  - Produce the CSD and ELLA report if appropriate
- Find suitable meeting times
  - Separate ELLA-focus meetings from generic Nendica meetings.
    - Alternate weeks? Different time slots?
  - Select meeting time for wide availability across 802 WGs and worldwide participants.
    - *802.1 authorizes Nendica to hold additional meetings as announced at least 10 days in advance.*
      - *Dates, times and agenda to be announced subject to notice of at least 10 days to the 802.1 Minutes email list*
      - *Access and agenda information are provided on the calendar at https://1.ieee802.org/802-nendica/.*
- Accommodate those unable to attend.
  - Encourage recorded contributions.
  - Encourage asynchronous discussion and comments.