

Nendica/NEA Joint Ad Hoc on Cut-Through Forwarding: Status

Rev 1: 2022-04-27: added Slides 7-8

Rev 0: 2022-04-20

Roger Marks
(EthAirNet Associates; Huawei)
roger@ethair.net

+1 802 capable

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Background

- Nendica: [IEEE 802 “Network Enhancements for the Next Decade” Industry Connections Activity](#)
- Nendica Study Item: [Cut-Through Forwarding in Bridges and Bridged Networks \[CTF\]](#) active since 2021-03-11
- Organized IEEE 802 Plenary Tutorial (2021-07-07): “[Cut-Through Forwarding \(CTF\) among Ethernet networks](#)”
- Nendica Consensus (2021-09-16) that “further discussion should be brought to the 802.1 WG or a Task Group”
- 802.1 WG submitted draft PAR 802.1DU (“Cut-Through Forwarding Bridges and Bridged Networks”) [PAR](#) and [CSD](#), 2022-01-31 for IEEE 802 March Plenary
- Comments developed in 802.3 WG, with 802.3 and 802.1 members
- Comment responses developed in 802.1 WG, with 802.1 and 802.3 members
- 802.1 WG decided not to pursue PAR in March

802.1 WG Motions

- **802.1 WG Motions, 2022-03-15:**
 - *Authorize the 802.1 WG to hold joint meetings with the 802.3 WG to discuss cut-through forwarding.*
 - *802.1 authorizes the 802.1 WG chair to present status of P802.1DU to the 802.3 WG and request joint meetings to continue discussion.*
 - *802.1 authorizes the TSN TG to generate PAR and CSD for pre-circulation to the EC for the July 2022 plenary session for an IEEE 802.1 standard on Cut-Through Forwarding.*

802.1 / 802.3 WG Actions

- 802.3 Closing Plenary (2022-03-17)
 - 802.1 WG Chair presentation recounted history of CTF activity in 802 back to 2016 and reported:
 - *P802.1DU PAR is deferred...*
 - *Consensus in 802.1 WG to discuss further with 802.3 WG jointly*
 - *Proposed venue*
 - *Joint NEA and Nendica Industry Connections ad hoc*
 - Note: “NEA” is IEEE 802.3 Industry Connections New Ethernet Applications Ad Hoc
 - https://www.ieee802.org/3/ad_hoc/ngrates
 - 802.3 Chair verbally accepted the proposal, with details to be determined

Ad Hoc Initiation

- Discussions in Nendica meetings
 - 2022-03-24, 2022-03-31, 2022-04-07
- Coordination with NEA and 802.3 leadership
- Polled potential participants regarding time slot
- Agreed to meet Wed 12:00-13:00 ET
 - 2022-04-20, 2022-04-27, 2022-05-04
 - Ad hoc can schedule further meetings
 - <https://1.ieee802.org/802-nendica/ctf-adhoc/>
 - Contributions to Nendica mentor, or via 802.3
 - Nendica Chair and NEA Chair to alternate as meeting chair and meeting secretary

Summary of First Meeting

- 2022-04-20, 12:00-13:00 ET
- 66 people
 - 17 registered in just 802.1 IMAT
 - 22 registered in just 802.3 IMAT
 - 1 registered in 802.1 and 802.3 IMAT
 - 26 additional on Webex seemed to not be in IMAT
- Contribution by NEA Chair on 802.3/NEA process
- Contribution by Nendica Chair on ad hoc background
- Contribution by Johannes Specht: “Cut-Through Forwarding (CTF) in Bridges and Bridged Network – Status Update”
- very little technical discussion
- request made for a contribution to detail the 802.3 perspectives; none offered yet

Summary of Second Meeting

- 2022-04-27, 12:00-13:00 ET
- 52 people
 - 18 registered in just 802.1 IMAT
 - 23 registered in just 802.3 IMAT
 - 11 additional on Webex seemed to not be in IMAT
- NEA Chair presided
- Contribution by Peter Jones: “802.3 NEA CTF: CTF concerns”
- extensive technical discussion
- continued objections to CTF from 802.3 participants

Next Steps

- Final scheduled meeting: 2022-05-04, 12:00-13:00 ET
 - <https://1.ieee802.org/ctf-agenda-2022-05-04/>
- Recall that TSN TG is authorized to generate PAR and CSD (deadline June 10)
- TSN does not meet June 6
- Will TSN meet May 30?
 - this is a major US holiday
- Ad Hoc could schedule a 4th meeting, avoiding:
 - 802.1 Interim (May 9-13)
 - 802.3 Interim (May 16-19 and May 23-26)
 - So perhaps May 20?