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| **Draft Minutes, Nendica Meeting, 2019-03-12, 03-13** | | | |
| **Date: 2019-04-04** | | | |
| **Author(s):** | | | |
| **Name** | **Affiliation** | **Phone** | **email** |
| Hao Wang | Fujitsu |  | wangh@cn.fujitsu.com |

**Abstract**

Draft minutes of the IEEE 802 Network Enhancements for the Next Decade Industry Connections Activity (Nendica) face-to-face meeting during the IEEE 802 plenary session on March 12 and 13, 2019.

The minutes are drafted following the common template provided by 802.1 Secretary.

# Attendance and affiliation

[Provided by 802.1 Secretary in Working Group minutes.]

## Nendica

The IEEE 802 Network Enhancements for the Next Decade Industry Connections Activity (Nendica) Chair, Roger Marks, presided.

Hao Wang wrote the minutes.

Additionally to the participants listed in section 1 who registered in IMAT, the following individuals also participated:

* Randy Haagens, Microsoft Corporation [Wednesday AM]
* Jesus Escudero-Sahuquillo, University of Castilla-La Mancha (UCLM). [Wednesday AM remotely]

**Tuesday 12 March 2019**

**19:30 (call to order by the Nendica Chair) to 21:16**

A conference call bridge was setup for remote participants.

The Nendica Chair presented the IEEE-SA PatCom Guidelines for IEEE-SA Meetings <https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.pdf>, the IEEE 802 Participation slide <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180.pdf>, and *IEEE ICCOM requirements* <https://1.ieee802.org/802-nendica/ieee-iccom-requirements/>.

**Agenda Approval**

The Nendica Chair presented the agenda in <https://mentor.ieee.org/802.1/dcn/19/1-19-0024-00-ICne.pdf>.

**Disposition**: The agenda was reviewed, discussed and approved.

The Nendica Chair proposed to defer data center agenda items to the Nendica meeting on March 13, 2019**.**

**Update**

The Nendica Chair showed the update of the Nendica webpage <https://1.ieee802.org/802-nendica/>, the documents on the Mentor server to be discussed, and how to record attendance on IMAT.

The Nendica Chair presented *IEEE 802 “Network Enhancements for the Next Decade”  
Industry Connections Activity (Nendica): Status Report* <https://mentor.ieee.org/802.1/dcn/19/1-19-0023-00-ICne-nendica-meeting-overview-2019-03.pptx>.

**Review of Minutes**

The Nendica Chair presented draft minutes of the Nendica conference call held February 28, 2019 <https://mentor.ieee.org/802.1/dcn/19/1-19-0021-00-ICne-minutes-of-nendica-meeting-of-2019-02-28.docx>.

**Disposition**: No comments were raised. Without objection, these minutes were approved.

**ICAID Renewal**

The Nendica Chair presented the ICCOM Nendica Status Report in <https://mentor.ieee.org/802.1/dcn/19/1-19-0015-01-ICne-iccom-nendica-status-report-draft.pptx>, the 2018 Annual Nendica Report in <https://mentor.ieee.org/802.1/dcn/18/1-18-0078-02-ICne.ppt> and the updated *IEEE 802 Network Enhancements for the Next Decade Industry Connections Activity (Nendica) Initiation Document (ICAID)* <https://mentor.ieee.org/802.1/dcn/18/1-18-0079-02-ICne-icaid-extension-and-revision-proposed-draft.docx>.

**Disposition**: No comments were raised. The following motion was presented:

* **Motion**:
  + To agree to forward ICAID renewal draft accompanied by 2018 Annual Nendica Report and ICCOM Nendica Status Report as background information.
  + Moved by Paul Congdon, seconded by Nader Zein
  + Yes: 18, No: 0, Abstain: 0
  + Motion passed

**FFIoT**

Nader Zein presented *FFIoT Status Report – IEEE 802 Nendica* <https://mentor.ieee.org/802.1/dcn/19/1-19-0022-01-ICne-ffiot-status-report-ieee-802-nendica-march-2019.pptx> and summarized *Flexible Factory IoT: Use Cases and Communication Requirements for Wired and Wireless Bridged Networks* <https://mentor.ieee.org/802.1/dcn/18/1-18-0025-07-ICne-pre-draft-wired-wireless-use-cases-and-communication-requirements-for-flexible-factories-iot-bridged-network.pdf>.

* The group discussed the date for the ballot on this draft. The Chair preferred to delay ballot opening until after Nendica’s expected renewal on March 21, 2019.

**Disposition:** The following motion was presented.

* **Motion**:
  + To accept the Flexible Factory IoT report titled “Flexible Factory IoT: Use Cases and Communication Requirements for Wired and Wireless Bridged Networks” draft 802. 1-18-0025-07-ICne as the new “Nendica Draft Report” and initiate a 21-days Call for Comments starting March 21, 2019.
  + Moved by Nader Zein, seconded by Hao Wang
  + Yes: 18, No: 0, Abstain: 0
  + Motion passed

The Nendica Chair offered to prepare the call for comments on the Nendica webpage.

**802.21 Study Group topic**

Dong-Il Dillon Seo presented *Why you should care about VR network requirements* <https://mentor.ieee.org/802.21/dcn/19/21-19-0022-01-0000-why-you-should-care-about-the-vr-network-requirements.pptx>.

* The group discussed the throughput and QoS requirements for the network in the proposed Virtual Reality (VR) use cases.
* The group discussed standardization issues and sought to clarify the goals of the Study Group mentioned in the presentation.
  + This Study Group is clarifying requirements for the network and is not authorized to develop a project at this stage.
  + A participant pointed out the past efforts of the 802.1 AVB and TSN TGs, suggesting an investigation of how well current 802 technologies meet the VR use cases.

**Disposition:** Further information is needed.

**Future meetings/teleconferences**

Agreed (informally, none dissenting) to hold a teleconference at 9:00 AM ET on April 18, 2019, and at 9:00 AM ET on May 7, 2019.

Nendica meets next during the May 2019 IEEE 802 wireless interim session in Atlanta, GA, USA, and during the May 2019 IEEE 802.1 interim session in Salt Lake City, UT, USA.

**Wednesday 13 March 2019**

**08:00 AM (call to order by the Nendica Chair) to 10:15 AM**

A conference call bridge was setup for remote participants.

**Lossless Data Center Networks (LLDCN)**

Jesus Escudero-Sahuquillo presented *Congestion Management for Ethernet-based Lossless DataCenter Networks* <https://mentor.ieee.org/802.1/dcn/19/1-19-0020-00-ICne-presentation-on-congestion-management-for-ethernet-based-lossless-datacenter-networks.pdf>.

* More technical details can be found in *Congestion Management for Ethernet-based Lossless DataCenter Networks* <https://mentor.ieee.org/802.1/dcn/19/1-19-0012-00-ICne-congestion-management-for-ethernet-based-lossless-datacenter-networks.pdf>
* The group discussed the implementation of the idea and how it might be documented in a specification.

**Disposition:** The presenter is encouraged to come back with new information in future meetings.

**Future meetings/teleconferences**

Agreed (informally, none dissenting) to hold an additional teleconference at 8:00 AM PT on April 10, 2019.

**A.O.B.**

No other business was discussed in this meeting.