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| Minutes of the IEEE 802 Nendica Meeting held on 2018-05-07 |
| **Date: 2018-05-24** |
| **Author(s):** |
| **Name** | **Affiliation** | **Phone** | **email** |
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## Abstract

Draft inutes of the IEEE 802 Network Evolution for the Next Decade Industry Connections (Nendica) meeting in Warsaw, Poland.

Chair: Roger Marks

Recording secretary: Guido R. Hiertz

## Call to order

The Chair calls the meeting to order at 2018-05-07T10:34+02:00.

## Minutes

Guido R. Hiertz volunteers to act as recording secretary.

[Note: This document is based on a draft record of the meeting, by the meeting recording secretary, as edited by the Nendica Chair. The document is submitted by the Nendica Chair without explicit confirmation of the edits by the recording secretary. Revision of the draft minutes will follow if the recording secretary disagrees with the edits.]

## Introduction

The Chair points attendees to the Nendica webpage <https://1.ieee802.org/802-nendica>. The Chair shows how to reach this webpage from the IEEE 802.1 website. The Chair attempted to connect this meeting to <https://join.me/Nendica802> enabling external participation, but failed (later learning from IEEE staff of a temporary outage).

The Nendica webpage <https://1.ieee802.org/802-nendica> contains a link to the agenda, see <https://tinyurl.com/yaa63ztn>.

At 2018-05-07T10:38+02:00 the Chair presents submission 1-18/23r0. At 2018-05-07T10:39+02:00 the Chair informs attendees of the guidelines for IEEE-SA meetings. The Chair reminds attendees that this program is not a standardization activity. The Chair reminds attendees of their duties under IEEE 802 rules. At 2018-05-07T10:41+02:00 the Chair reminds attendees to register their attendance using IEEE’s IMAT webpage.

At 2018-05-07T10:43+02:00 attendees adopt the proposed agenda by unanimous consent. Afterwards, the Chair introduces document <http://standards.ieee.org/about/sasb/iccom/IC17-001-01_IE.pdf>. He reminds attendees that the outcome of this group will be one or more reports and not a standard or a Project Authorization Request (PAR).

At 2018-05-07T10:49+02:00 the Chair presents the IEEE fileserver (Mentor) for submissions to Nendica. The Chair reminds that any person attending a meeting of Nendica may vote on all motions. Currently, this group is authorized to meet until the end of its March 2019. However, an extension may be warranted.

At 2018-05-07T10:51+02:00 the Chair presents submission 1-18/20. The Chair informs attendees that Walter Pienciak is no longer with IEEE-SA. Thus, IEEE-SA proposed that Patrick Slaats become Nendica’s IEEE-SA Advisor.

At 2018-05-07T10:55+02:00 the Chair reviews submission 1-18/16. The Chair outlines how a Work Item initiation is performed. Work Items are promoted through the Nendica webpage. Some Work Items have had stand alone meetings and phone conferences.

At 2018-05-07T11:00+02:00 the Chair reviews the minutes of the teleconference on 2018-04-11. The minutes are contained in 1-18/22. At 2018-05-07T11:03+02:00 the group approves the minutes by unanimous consent.

Afterwards, the group reviews the Nendica Draft Report: “The Lossless Network for Data Centers” stored at [https://1.ieee802.org/802-nendica/nendica-lldcn](https://1.ieee802.org/802-nendica/nendica-lldcn/). So far only one comment has been submitted in the 30-day Call for Comments. However, the Chair states that further comments may be expected by the deadline in mid-May. This report could become the first deliverable of Nendica.

At 2018-05-07T11:08+02:00 the chair introduces [https://1.ieee802.org/802-nendica/nendica-ffiot](https://1.ieee802.org/802-nendica/nendica-ffiot/) and the document 1-18/2r5 linked at this page. Submission 1-18/2r5 is not as mature as the “The Lossless Network for Data Centers” report. The Chair browses through the report and highlights various aspects.

At 2018-05-07T11:16+02:00 a discussion begins:

Comment: This document mentions interference between dissimilar wireless technologies.

Question: Is there any mentioning of this topic elsewhere?

Comment: Clearly, this is a coexistence issue. Some kind of arrangement or a coordinator could help minimizing conflicts.

Comment: Past discussions were about mobility of heavy machines in these factories. Moving metal objects impacts the propagation characteristics. Also, there is interference leakage from these manufacturing machines.

Comment: Some of the discussion was about noise and EMI.

Comment: Another past discussion was about coexistence.

Comment: The report talks about “considering the coexistence of uncoordinated wireless systems.”

Comment: Some of the problems relate to the packet delivery delay that stems from interference and retransmissions.

Comment: This is about coordination between dissimilar wireless technologies.

At 2018-05-07T11:25+02:00 the Chair continues reviewing 1-18/2r5.

At 2018-05-07T11:37+02:00 attendees engage in a discussion.

Comment: There is some IoT report going on in IEEE 802.24.

Comment: Report 1-18/2r5 is interesting as it looks from a wired perspective at the wireless implications.

Question: What is the 802.24 report about?

Comment: The report is at an immature state. The report looks at non-IEEE standards too.

Question: How can we get some feedback to this activity? How to generate some input for them?

Comment: The presumption is that it’s not only Ethernet but IEEE 802 technologies in general.

Comment: I cannot see how these requirements may be generic, they are immediately related to the MAC.

Question: Is this presumption that all of this is about unlicensed spectrum?

Comment: Here, any kind of wireless technologies is considered.

Comment: We have unknown wireless communication protocols operating in a harsh environment. And the expectation is that the communication is highly predictable and deterministic.

Comment: Clearly this report is in need of some input. Maybe this report should explain why some problems are hard to solve.

Comment: I believe most of the data they intend to exchange is very discrete. They have reports and commands.

Comment: It’s more instruction based.

At 2018-05-07T11:49+02:00 the Chair ends reviewing 1-18/2r5 and starts discussing what might be a good future Work Item for Nendica. The Chair proposes that integration of 802.1 Time-Sensitive Networking (TSN) with radio access networks might be a good topic. The chair also mentions Distributed Radio Access Networks as a potential topic. There is a process in 802.3 looking at the upcoming requirements for Ethernet. They use Industry Connection activities identifying needs for future Ethernet applications. The Chair encourages attendees to bring discussion items to Nendica.

At 2018-05-07T11:58+02:00 the Chair adjourns the meeting.

## Attendance

18 individuals, registered per IMAT.

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| **Name** | **Affiliation** |
| Adachi, Tomoko | TOSHIBA Corporation |
| de Vegt, Rolf | Qualcomm Incorporated |
| Efrati, Noam | Celeno Communications |
| Egashira, Naoto | Advanced Telecommunications Research Institute International (ATR) |
| Godfrey, Tim | Electric Power Research Institute, Inc. (EPRI) |
| Hiertz, Guido | Ericsson AB |
| Inoue, Yasuhiko | Nippon Telegraph and Telephone Corporation (NTT) |
| Jeffries, Timothy | Huawei R&D USA |
| Levy, Joseph | InterDigital, Inc. |
| Li, Yunbo | Huawei Technologies Co. Ltd |
| Lv, Lily | Huawei Technologies Co. Ltd |
| Marks, Roger | EthAirNet Associates; Huawei |
| Nagakubo, Sakie | Toshiba |
| Sadeghi, Bahareh | Intel Corporation |
| Sambasivan, Sam | AT&T |
| Sumi, Takenori | Mitsubishi Electric Corporation |
| Wang, Xuehuan | Huawei Technologies Co. Ltd |
| Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
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