IEEE P802.11
Wireless LANs

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| Minutes of the Ethernet Cabling Requirements (ECR) Ad-Hoc Group (AHG) July 2018 meeting |
| Date: 2018-07-13 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
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Abstract

This document contains the minutes of the meeting of the ECR AHG during the IEEE 802 plenary meeting in San Diego in July 2018.

At 2018-07-10T08:14-07:00 the Chairman calls the meeting of the Ad hoc group (AHG) Ethernet Cabling Requirements (ECR) to order. Osama Aboul-Magd acts as Chairman. The Chairman volunteers Guido R. Hiertz to act as recording secretary.

The Chairman presents 11-18/1037r1 that contains that agenda of the meeting of the AHC ECR.

At 2018-07-10T08:15-07:00 the group approves the agenda by unanimous consent. At 2018-07-10T08:17-07:00 the chairman reads pages seven to nine of 11-18/1037r1. At 2017-07-10T08:21-07:00 the chairman arrives at page 15 of 11-18/1037r1.

Motion

“Approve ECR teleconference minutes from May 2018 Interim meeting to today

* https://mentor.ieee.org/802.11/dcn/18/11-18-1076-01-0000-ecr-ad-hoc-teleconference-minutes-june-11-2018.docx
* https://mentor.ieee.org/802.11/dcn/18/11-18-1175-00-0000-ecr-ad-hoc-teleconference-minutes-july-03-2018.docx”

Moved: Carlos Codeiro

Second Solomon Trainin

Approved by unanimous consent

At 2017-07-10T08:23-07:00 the Chairman begins presenting 11-18/1124r1. The Chairman invites attendees to interactively work on and to finalize the report. The Chairman will upload a modified version of the report as 11-18/1124r2.

Comment: Back with 802.11ac the work was focused on existing cabling, not new cables.

The Chairman modifies page three accordingly.

Comment on page 5: This picture has not changed, it is still valid like this.

Comment on page 7: Tthe bulk of the market is still 1 Gb/s. 2.5 Gb/s and 5 Gb/s are rapidly growing with 10 Gb/s Ethernet decreasing.

At 2017-07-10T08:33-07:00 the Chairman continues from page eight of 11-18/1124/r1.

Comment: So, 802.11ax does not increase the peak throughput?

Comment: Yes, the peak does not change.

Comment: The peak throughput is still around 9.6 Gb/s

Comment: What is the range of 802.11ay?

Comment: It still does not go through walls and range is about 10 m.

At 2017-07-10T08:39-07:00 the Chairman continues from page nine of 11-18/1124/r1.

Comment: If we talk about 10 m, 20 m, or 30 m for 802.11ay how is the backhaul for this?

Comment: If you have high gain antenna you go on average to 120 m?

Comment: The speed is then over 1 Gb/s.

Comment: What do we see with the average APs, not the super cheap or high end ones?

Comment: There are 802.11ad products in the market that support 4 Gb/s.

At 2017-07-10T08:45-07:00 the Chairman continues from page eleven of 11-18/1124/r1.

Attendees discuss about the market predictions. They are seen as rather aggressive and schedules already slipped by at least nine months.

Comment: Some market predictions say that by 2022 the total shipment of 802.11n/ac devices will be two thirds and 30 % will be 802.11ax. This is total device shipment.

Comment: You should mention that 802.11ax did not have a goal to improve the peak throughput.

Comment: How does the shipment of chips relate to the Ethernet requirements?

Comment: We will discuss this on the following slides.

Comment: With 802.11 Extremely High Throughput we want rules of thumb for peak rate and standard ratification dates.

Comment: I want to know what are we doing here. What will the power requirement of future APs be?

Comment: Basically, what we see from generation to generation is that power stays the same. There are savings in the chips and also more power is used for transmitting. So in the end, power consumption stays the same.

Comment: We should add a slide saying what the Charta of this activity is.

Comment: This is on page 4 of this slide deck.

Comment: Can we draft a slide on power requirements?

Comment: You may want to state that the range and use cases are the same as with previous APs.

Comment: In enterprise I believe we have one AP covering 100 m2 and if cabling lengths are 30 m to 40 m. With data rates of about 25 Gb/s then more switches are needed and providing rooms for them is expensive.

Comment: For a duration of 15 to 30 years building layouts are static.

Comment: You are cutting the grid size to a quarter.

Comment: There is only one 160 MHz client on the market.

Comment: We cannot design for the maximum if the reality is somewhere else.

Comment: Where will the 320 MHz come from that EHT targets?

Comment: I believe wiring is changed every 10 years.

Comment: What I heard is every 20 years.

Comment: We need to be very clear on these slides and include what we know now and what 802.3 wants to know.

Comment: What we need to know is the sustained throughput over 5 s, 2 min, 15 min.

Comment: We also need to know the usage case, is it the same as before, or is there an AP on each light pole?

Comment: I also need to know the market percentage, we cannot design for 5 % of the market

Comment: We can make a statement that the layout of 802.11ax will be similar to 802.11ac, which is the same as 802.11n.

Comment: I am missing a statement that says we have a need for something new regarding the wiring.

Comment: This presentation will not help 802.3 at this time. We would want a table showing the needs.

Comment: I propose that we go back with both 802.11 and 802.3 chair to propose a joint ad hoc group

At 2018-07-10T09:40-07:00 the Chairman explains that he will prepare new slides with less content and a recommendation to form an ad hoc between both Working Groups.

Peter Jones is asking the following straw poll

“Is the material in 11-18/1124r1 as modified during this meeting ready to go in front of 802.3?”

Result: Yes: 0 No: 10 Abstain: 1

There are a total of 15 attendees in this room.

At 2018-07-10T10:00-07:00 the Chairman calls the meeting of the AHG ECR adjourned.

# Partial list of attendees

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| Name | Affiliation |
| Paul Neveux | Superior Essex |
| Brian Petry | Broadcom |
| Jacky Chang | HPE |
| Keng Hua Chuang | HPE |
| Joseph Levy | InterDigital |
| Val Liva |  |
| Clark Carty | Cisco |
| David Tremblay | HPE |
| Matt Ceglia |  |
| Carlos Cordeiro | Intel |
| Solomon Trainin | Qualcomm |
| James Withey |  |
| Peter Jones | Cisco |