IEEE P802.11
Wireless LANs

|  |
| --- |
| Minutes of the January 2019 meetings of the IEEE 802.11 Coexistence Standing Committee |
| Date: 2019-01-24 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Guido R. Hiertz | Ericsson | Ericsson GmbHEricsson Allee 152134 HerzogenrathGermany | +49-2407-575-5575 | hiertz@ieee.org |

Abstract

This document contains the minutes of the Wednesday and Thursday meetings of the Coexistence Standing Committee during the January 2019 IEEE 802.11 interim in St. Louis, Missouri, USA.

Meeting location: 38°37'30.8" North 90°11'28.4" West

# Wednesday, 2019-01-16

At 2019-01-16T13:32-06:00 the chair calls the meeting of the Coexistence Standing Committee (SC) to order. Andrew Myles acts as chairman of the SC. Guido R. Hiertz acts as secretary of the SC.

At 2019-01-16T13:33-06:00 the chair introduces document 11-18/2118r4. The chair explains that R4 is identical to R3 of this document. He states that any potential modifications to this document will be uploaded as R4 after the meeting. The chair starts reviewing the document from page two. The chair briefly introduces page four and reminds attendees of meeting etiquette as explained on pages five and six.

At 2019-01-16T13:34-06:00 the chair introduces the proposed agenda for this week. The proposed agenda ist listed on page seven of 11-18/2118r4. There are no comments or suggested additions to the agenda. The SC approves the agenda by unanimous consent at 2019-01-16T13:35-06:00.

At 2019-01-16T13:37-06:00 the chair reaches page 13 of his submission. The SC approves the meeting minutes of the previous (November 2018) meeting contained in document 11-18/2138r0 by unanimous consent.

At 2019-01-16T13:38-06:00 the chair starts presenting from page 15 of 11-18/2118r4.

Comment: Normally RAN1 has 250 attendees.

Comment: A RAN meeting has 600 attendees.

Comment: We need to talk about logistics for the workshop.

At 2019-01-16T13:41-06:00 the chair continues from page 18.

Comment: I don’t want to take away meeting time from 802.11

Comment: It was debated by myself, Jon, and Dorothy.

Comment: Why is neither Saturday nor Sunday being considered?

Comment: What about Friday?

Comment: Sunday is not considered because leadership does not want it on this day.

Comment: Leadership wants Sunday to be available for preparation of the IEEE 802.11 meeting week.

Comment: Friday is reserved for EC. They don’t want Friday for the workshop.

Comment: I don’t like the idea of having it between 13:00 and 21:00. A lot of 3GPP folks will be on vacation. They will want to fly in the morning and fly out at night. Thus, throughout the day would be better. I am speaking against the timing.

Comment: 3GPP delegates are not used to pay fees for attending a meeting. Some form of sponsoring would be a good idea.

Comment: We certainly invite people to sponsor the event.

Comment: It was preferred to have it on one day and not split it between an evening and a morning session.

Comment: Do you think it is worth the trouble if we get just 40 people from 3GPP? We need to get the right people. Otherwise, it’s a waste of time.

Comment: The details are not yet confirmed.

Comment: We should have remote attendance. Not for speaking but listening in. The cost of attendance is so high. The hotel should be able providing audio equipment so that remotely attending resp. following the workshop becomes possible.

Comment: If you attend the two afternoon sessions this will bring credits.

Comment: If this an official meeting under IEEE rules recording/broadcasting of meetings might be prohibited.

Comment: No, no it’s not a meeting under IEEE-SA. It’s a workshop that 802.11 organizes. Thus, we are meeting in a different location than the IEEE 802 plenary.

Comment: You need to look into the rules that 3GPP has.

Comment: Certainly, this meeting will be under IEEE rules.

Comment: If you don’t reach the expected audience, will you cancel?

Comment: If five register we cancel. If 35 register we will have it.

Comment: Has the IEEE Europe office been investigated?

Comment: Yes, it is very expensive. Everybody advised against it.

Comment: There workshop registration fee will be reduced or waived for those who have registered for the IEEE 802 meeting.

Comment: Why don’t we do it in the convention center to save cost?

Comment: There is all kind of complications regarding from IEEE rules over contract with the convention center etc.

Comment: How do you differentiate between company and individual attendance?

Comment: It’s just a meeting. There are no votings and no decisions. It just a conference. It has no official weight. It is a discussion to encourage better communication.

Comment: If we had straw polls how would this be handled?

Comment: You shall clarify if straw polls be permitted at the workshop.

At 2019-01-16T14:10-06:00 the chair continues from page 20 of his submission.

Comment: The idea that most of the interested parties are addressed through 3GPP is questionable.

Comment: Various groups are lobbying regulatory authorities. It would be good to have them at the workshop.

Comment: In other venues it was not helpful to have regulatory authorities present. E.g. at the WFA meeting in the US.

Comment: There is a risk that attendees address the authorities instead of a constructive discussion of collaboration.

Comment: We need to be careful whom we invite. We should not to dilute the scope of the discussion.

Comment: If we invite ETSI BRAN also regulators are invited.

Comment: Regulators might come along through BRAN. That’s different from sending active invitations.

Comment: There won’t be a massive fight. 3GPP has settled many things in July already.

Comment: The regulators fit very well.

Comment: The next 3GPP release is frozen in June.

Comment: We get facts out of this. This is good.

Comment: We should not invite regulators directly.

At 2019-01-16T14:21-06:00 the chair asks the following straw poll:

1) Regulators invited explicitly

2) Regulators not invited explicitly

Result: 1): 9 2): 15

At 2019-01-16T14:24-06:00 the group debates page 24 and whom to invite resp. who invites other bodies.

Comment: Each body can invite bodies and people we favor.

Comment: 3GPP can invite who they want. And we will invite who we want.

Comment: Anybody can turn up and register. There is no requirement to be an 802.11 or 3GPP member.

Comment: This is a PR exercise. This tries to get a good cross section.

Comment: It might not be good to have too many people at the workshop.

Comment: Who attends and who presents are separate questions.

Comment: During discussion everybody can speak. Then, we may have a good discussion.

Comment: We don’t want barriers. There should be free discussions. Fair and even discussions.

At 2019-01-16T14:31-06:00 the chair shows 11-19/172r0 on the screen.

Comment: Why don’t we make it a co-hosted event?

Comment: It is better to make it more equal.

Comment: If we do not address the 5.9 GHz band, we should not invite the auto makers.

Comment: It is important to invite the technical NR-U feature leadership.

Comment: GSMA, Cablelabs and 5G ACIA will receive the invitation through 3GPP and 802.11.

At 2019-01-16T14:37-06:00 the chair arrives at page 26.

Comment: We should have a set of invited papers.

Comment: There would be an official set of papers that set the scenes.

Comment: Before our May meeting, we should have papers in.

Comment: We will have submissions from corporations, individuals, and maybe regulators.

Comment: We shall address the EHT and 802.11ax chairs to create input.

Comment: Summary of 6 GHz regulatory aspects should be handled by 802.18 or WFA regulatory group but not ETSI BRAN because TC BRAN is not a regulatory group.

At 2019-01-16T14:45-06:00 the chair reaches page 33. The chair presents 11-19/172r0 on the screen.

Comment: why do you put a fixed date here although it is not confirmed?

Comment: I believe we, myself, Jon, and Dorothy have converged on this date.

Comment: We have so far everything, except for the cost thing.

Comment: Make sure that nobody pays twice for the workshop and the 802 plenary.

Comment: This letter should come from Dorothy.

Comment: The submissions should be received by Dorothy.

Comment: Change “hosted by” to “organized by.”

Comment: Why do you want to restrict it to 6 GHz?

Comment: I believe that 5 GHz is resolved with LAA LTE.

Comment: I believe a focus on 6 GHz is good.

Comment: That doesn’t mean we can’t talk about 5 GHz.

Comment: Would anyone object to saying the workshop is jointly organized by 802.11 and 3GPP?

Nobody objects.

At 2019-01-16T15:01-06:00 the chair continues from page 35 of 11-18/2118r4.

Comment: I found the LS from BRAN to 3GPP ambiguous.

Comment: I saw you had some back and forth on this with another member of 802.11. I am not sure what your concerns were.

Comment: It wasn’t written in terribly clear text.

Comment: We don’t know what the issue is.

Comment: Testing is required by authorities. They want every essential aspect covered by a test.

Comment: At TC BRAN, Rohde & Schwarz explained that 10 % detection errors are permitted. Another 5 % of transmissions without backoff are permitted under Short Control Signaling rules. Together, Rohde & Schwarz summarized this as 15 % transmissions without LBT.

Comment: The initial Rohde & Schwarz test did not have a 16 µs gap after 11 ms of noise was sent. Almost all implementations failed the test then.

Comment: Rohde & Schwarz will generate a new recorded file that contains the 16 µs gap. There is a risk that implementations still do not pass the test.

Comment: Restrictions are always dangerous. Some device may not pass.

Comment: Thay may cause our market to shrink.

Comment: Not everyone can afford complex testing. This drives development cost up.

At 2019-01-16T15:30-06:00 the chairman declares the meeting in recess.

# Thursday, 2019-01-17

At 2019-01-17T13:32-06:00 the chair calls the meeting of the Coexistence Standing Committee (SC) to order. Andrew Myles acts as chairman of the SC. Guido R. Hiertz acts as secretary of the SC.

At 2019-01-17T13:32-06:00 the chair presents 11-18/2118r6. This document is identical to R5 on the server. R6 will contain all modifications that might occur during this session. The chair presents from page 54.

Comment: There is nothing that this report wants to have adopted by ETSI BRAN. It’s just about analyzing products and to see if the test can be easily implemented.

Comment: The products are a range of recent and new products.

Comment: This is all about implementing the tests and doing scientific analysis.

Comment: It’s easy to implement the test on an inexpensive Software Defined Radio. There is no rocket science here.

Comment: Everybody can do this. It’s a good tool. Helps to perform your own tests.

Comment: Vendors could mutually test their products. Competitors could check others.

Comment: Authorities will have a powerful tool through this.

At 2019-01-17T13:48-06:00 the chair arrives at page 64 of his submission. At 2019-01-17T13:49-06:00 the chair presents 11-19/63r3. At 2019-01-17T13:58-06:00 attendees discuss the draft liaison letter.

Comment: You say Cat 4 LBT is our LBT.

Comment: Yes

Comment: As long as we do not screw up TXOPs I am fine.

Comment: We are not telling them to do anything, but we request to talk about it to us.

At 2019-01-17T14:02-06:00 the following motion is moved:

 “The IEEE 802.11 Coexistence SC recommends to the IEEE 802.11 WG that the contents of 11-19-0063-04 be sent to 3GPP RAN1 as a Liaison Statement”

* Moved: Andrew Myles
* Seconded: Michael Fischer

Result: Yes: 18, No: 0, Abstain: 9

Comment: Is the LAA LBT fine?

Comment: The LAA LBT is aligned with EDCA in EN 301 893.

Comment: The short LBT is that you look at the medium for 25 µs and if idle you go.

Comment: If everybody did 5 % short control signaling then the medium was overloaded.

Comment: Do you have any data or measurements about this?

Comment: We want the LAA gear to continue to exist.

Comment. They mainly use Cat 4 LBT.

Comment: NR-U WI says that it is based on LAA Cat 4 LBT.

At 2019-01-17T14:06-06:00 the chairman continues from page 68.

At 2019-01-17T14:13 an attendee comments on page 77.

Comment: One issue with unlicensed is that a UE needs to wake up very frequently. So, they have various options to wake up a UE. It could be a wake-up signal, out-of-band signaling, or the 802.11a preamble.

Comment: The 802.11a will not work because of the different numerology.

At 2019-01-17T14:17-06:00 Shubhodeep Adhikari presents 11-19/188r1.

Comment: With the 802.11a preamble you can go to sleep after you decoded the SIG field.

Comment: But you don’t know what device is addressed. There is no addressing information.

Comment: I read through the Tdocs and there are many more companies that believe there are issues with the preamble.

Comment: For the forseeable future all NR-U devices will come with a Wi-Fi chip.

Comment: So, you assume that both chips interact?

Comment: Yes, there is an interface at the Wi-Fi chip to indicate what is the channel status.

Comment: The argument against power saving is that if you have a lot of devices in the system you are always waking up.

Comment: No, this is false. NR-U needs to sense only when it does transmit.

Comment: The PDCCH monitoring is burning a lot of energy.

Comment: A device would wake up for every packet.

Comment: No, the use of the 802.11a preamble by NR-U can be distinguished from the use of an 802.11 packet by the reserved bit in the 802.11a preamble.

Comment: This isn’t reliable. There are broken implementations in the field.

Comment: The UE vendors have to implement this, if there is a Wi-Fi modem you use it to send and receive the 802.11ax preamble.

Comment: It is not clear how the device will wake up the NR-U part if it has received the preamble.

Comment: This procedure already exists in UE implementations under design by my company.

Comment: In each of the cases the modem is from another company and we deliver a Wi-Fi modem and we have worked with the LTE chip supplier team.

Comment: If a proof is required the according UE company should speak up.

Comment: It has been already done.

At 2019-01-17T14:55 the chair declares the meeting adjourned.