IEEE P802.11
Wireless LANs

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| Minutes of the July 2019 Coexistence Standing Committee meeting  |
| Date: 2019-07-20 |
| Author(s): |
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Abstract

This document contains the minutes of the meeting of the IEEE 802.11 Coexistence Standing Committee (SC). The SC met for one 2 h slot on Thursday, 2019-07-18.

At 2019-07-18T13:32+02:00 Andrew Myles calls the meeting of the IEEE 802.11 Coexistence Standing Committee (SC) to order. Andrew Myles acts as chair of the SC. Guido R. Hiertz acts as recording secretary. The chair presents submission 11-19/1145r2. This version of the document is equivalent to revision 1 (R1), which is stored on Mentor server. R2 will contain all modifications that may arise from this session.

At 2019-07-18T13:33+02:00 the chair arrives at page 7 of 11-19/1145r2. At 2019-07-18T13:34+02:00 the SC approves the proposed agenda by unanimous consent.

At 2019-07-18T13:36+02:00 the chair arrives at page 12 of 11-19/1145r2. The chair asks for unanimous approval of the meeting minutes contained in document 11-19/1010r0. Nobody objects to approving the minutes by unanimous consent.

At 2019-07-18T13:37+02:00 the chair presents an Excel sheet showing the budget calculation of the Coexistence workshop. The cost was roughly 25,000 USD for 150 registered attendees.

Comment: Please upload this Excel sheet to IEEE’s Mentor server.

Comment: Please talk to Jon Rosdahl to have it in his budget.

Chair: Jon has these numbers already.

At 2019-07-18T13:40+02:00 chair continues presenting from slide 14 of 11-19/1145r2.

Comment: Keeping the schedule and timing worked well. Everybody got their message across.

Comment: It brought a lot of issues up. There was nothing really new. Everything was known from TC BRAN. It was good to take it to a wider audience.

Comment: Everybody needs to go back and think about it internally. Certainly, TC BRAN is the focal point.

Comment: How we could do better with 3GPP?

Comment: I have never been to an ETSI meeting. A lot of this was brand-new to me. The last speaker, a vice-chair of RAN1, had really good thoughts, that are worthwhile to consider. Very positive things on how to compromise.

Comment: When will the meeting minutes be ready?

Comment: As soon as I am back from vacation.

Comment: It was a good workshop. It was worth the effort. There were presentations that were hammering on the same topic again and again. Combing them would have been good.

Comment: The number of preamble presentation highlights that this topic is an important issue.

Comment: With less presentations there could have been more discussions. The panel discussion was very limited. In the future, more time for discussion should be given.

Comment: Presentations should be shorter in the future.

Comment: It was a very long day. In the future, maybe it could be broken up into two half day sessions.

Comment: There was an idea to do it on Wednesday evening and Thursday morning. Then there was another idea to do it on the weekend. But that would not have been attractive, too.

Comment: The panels were a worthwhile exercise.

Comment: Think about the distant future, e.g. 2021, 2022. We could have meetings at the same venue as 3GPP. E.g., IEEE 802.11 could meet the week before or after 3GPP’s meeting. Then, everyone would be at the same location anyway. Thus, more attendees could be present.

Comment: If we don’t follow up, the workshop will have no value. Is there is any interest in a follow-up? There are issues that can harm both sides. Is there a way to make a core team to work in the background? This team could come up with recommendations. It has been done earlier. Many Wi-Fi companies had an involvement with multi-node tests. We need a way forward.

Comment: I agree with you. Yesterday, we highlighted problems but not solutions. We should make some formal proposal for follow-ups.

Comments: We need solutions sooner than later.

Comment: You suggest that we create a presentation and upload?

Comment: A proposal could be uploaded to Mentor. Or an e-mail conversation. We need plans to solve this. It requires people in the room to drive this and not only the chair.

Comment: Maybe some companies from 3GPP could attend 802.11 meetings to form a solution group.

Comment: We need to go on with this. The 6 GHz work starts from October.

At 2019-07-18T14:00+02:00 the chair continues presenting from slide 17 of 11-19/1145r2.

Comment: Your report is imprecise. The ETSI TC BRAN chair declared consensus based on his opinion that he believes that there would be no more reason for technical objection. He stated that attendees could appeal against his decision with the ETSI Board of Directors.

Comment: Later, he asked companies supporting the 6 GHz work item to apply modifications to the work item. Thus, he asked supporters that any reasons to appeal his decision would be removed in a revised version of the work item.

Comment: Basing a 6 GHz Harmonized Standard on EN 301 893 is dangerous. It means we are stuck with existing rules. This is innovation hostile. Already now, EN 301 893 prohibits the use of various 802.11 features in Europe.

Comment: I agree with your assessment.

Comment: Setting up further restrictions will harm our technology more than others. 802.11 carries a lot of old stuff because of compatibility. Others start from scratch and design according to a harmonize standard. We shoot ourselves in the foot.

Comment: I agree with you. It’s not ideal to use EN 301 893 as a referee. However, it has caused 3GPP to review their rules and to balance with us. Still, there is the risk that 3GPP will go down a path that is to our drawback. Through TC BRAN, we must force them to comply with what we want.

Comment: At 3GPP, it was decided that FBE could have been used by NR-U. I want to correct that LAA went with LBE, because they wanted to do a favor to Wi-Fi. 3GPP decided for LBE because LAA would not have had any chance of access to the radio channel. The decision was made to make LAA efficient. It was necessary for the existence of LAA. At FCC, there are NPRM responses that certain 6 GHz bands should be reserved for FBE because otherwise it has not chance to coexist with LBE.

Comment: There are many elements in LAA when network operators or ETSI BRAN acted like a regulator. In the absence of a forum, there is no solution. The alternative cannot be nothing.

Comment: How do we get two powerful groups to work together?

Comment: ETSI BRAN is not a regulator. It is us. We develop the rules that we operate under. How do we work together to get the best results?

Comment: There is an angst on both sides to use simple rules, it’s not a good way.

Comment: We need to get past accusations like “you said this and you did not deliver that.”

At 2019-07-18T14:26+02:00 the chair continues presenting from slide 22 of 11-19/1145r2.

Comment: Without any justification, simulation results were repeatedly accused of being flawed, in the past. This does not create a collaborative environment.

Comment: During the workshop, we did not accuse anyone’s simulation of being flawed.

Comment: I am not talking about the workshop. In the past, members of this SC discredited simulation results that they did not like.

Comment: We should review each other results to the greatest extent and with respect to each other.

Comment: I fully agree. It does not help to attack somebody’s work without any evidence.

Comment: In 3GPP, even if there is a diversity of results, they all come to the same conclusion.

At 2019-07-18T+02:00 the chair continues presenting from slide 25 of 11-19/1145r2.

Comment: Rohde & Schwarz presented results of devices being confronted with 60 s of noise. Then, devices sent out channel switch announcement messages. This kind of transmission without LBT occurs seldom and serves a special purpose.

Comment: Yes, that is true. That is a special case.

Comment: We discussed earlier that the 802.11 standard mandates sending the beacon frame with backoff. However, some products do send beacon frame with PIFS access without a backoff.

Comment: Be careful with conclusions. The 2.4 GHz and 5 GHz bands are different and so is the duration of beacon frames.

Comment: We need more data about products in the market. The standard is not the reality.

At 2019-07-18T+02:00 the chair continues presenting from slide 26 of 11-19/1145r2.

Comment: In 2016, TC BRAN already discussed how to test that the contention window size is adjusted when retransmitting. To have a device retransmit, one needs to know the underlying communication protocol.

Comment: Testing retransmissions requires observing many events since two independent functions need to be analyzed.

Comment: Your slides are incorrect. My colleagues did not ignore aspects of feedback. They provided reasons why a simpler version works, too.

Comment: TC BRAN had an ad hoc session during which they reviewed the statistical implications of continuously updating CW or not. They concluded that considering fewer feedback would also work.

Comment: It’s not desirable to define and test these details to microsecond levels.

At 2019-07-18T+02:00 the chair continues presenting from slide 34 of 11-19/1145r2.

Comment: At TC BRAN, one entity that saw no problem. The person believes that the intended spectral mask applies. E.g., if a device intends to send an 80 MHz signal the 80 MHz mask applies even if just 60 MHz or 40 MHz are occupied.

Comment: Yes, that is correct. However, many disagree with this interpretation.

Comment: TGax should analyze this spectral mask issue.

Comment: Maybe there is nothing to do because devices are good enough when they to puncturing?

Comment: Otherwise, we need to come back to TC BRAN.

Comment: Authorities will not allow relaxations. They already warned of relaxing the mask. They will object to more interference in adjacent bands.

Comment: I believe the current EN 301 893 text is unambiguous. The spectral mask is defined by what is occupied during transmission.

Comment: These are important questions.

Comment: Rohde & Schwarz identified issues with 802.11 devices. They reported that devices do not adhere to the 802.11a preamble. Together with Ericsson, Rohde & Schwarz improved the test so that pre-recorded sequences could be used. This simplifies the requirements on testing equipment.

Comment: Please send equipment to have them tested at the Rohde & Schwarz Test event in Munich.

Comment: Very early tests were lacking a gap between noise and the 802.11a preamble. However, with new tests, a gap between noise and a preamble transmission was inserted. Still, devices were not deferring to the preamble.

At 2019-07-18T15:15+02:00 the chair continues presenting from slide 42 of 11-19/1145r2.

At 2019-07-18T15:16+02:00 Shubhodeep Adhikari presents submission 11-19/1332r0. At 2019-07-18T15:37+02:00 Shubhodeep concludes his presentation and the chair declares the meeting of the SC adjourned.