IEEE P802.11
Wireless LANs

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| Minutes of November 2018 meeting of the IEEE 802.11 Coexitence Standing Committee |
| Date: 2018-11-16 |
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Abstract

This document contains the meeting minutes of the Wednesday and Thursday sessions of the IEEE 802.11 Coexistence Standing Committee during the IEEE 802 November 2018 plenary meeting at the Marriott Marquis Queen’s Park hotel in Bangkok, Thailand.

Meeting location: 13.730502N 100.565726E

# Wednesday, 2018-11-14, PM1 session

At 2018-11-14T13:32+07:00 the chairman calls the meeting of the Coexistence Standing Committee (SC) to order. Andrew Myles acts a chairman of the meeting of the SC. Guido R. Hiertz acts as recording secretary.

At 2018-11-14T13:30+07:00 the chairman introduces document 11-18/1729r4. R3 of this document is stored on IEEE’s Mentor server. The chairman explains that R4 of the document will contain any modifications that might occur out of this meeting. Furthermore, the chairman states that he will upload R4 after today’s session.

At 2018-11-14T13:33+07:00 the chairman presents the proposed agenda contained on page 7 of 11-18/1729r4. At 2018-11-14T13:35+07:00 the SC approves the agenda by unanimous consent.

At 2018-11-14T13:36+07:00 the SC approves the minutes of the SC’s previous meetings contained in 11-18/1744r0 by unanimous consent.

At 2018-11-14T13:37+07:00 the chairman reviews his submission from page 7 of 11-18/1729r4. At 2018-11-14T13:43+07:00 the chairman arrives at page 21.

Comment: ETSI ERM TG11 has gone through a similar process explaining why certain requirements are not included. It has been agreed that documents now go through a review by the consultants of the European Commission.

Comment: This is a single person that reviews Harmonized Standards on behalf of the European Commission.

At 2018-11-14T13:44+07:00 the chairman continues from page 22 of his submission.

Comment: On one of your previous slides it should be EG 203 336.

Comment: I came across testing of LAA LTE deployments in two Asian countries.

Comment: I am able to reveal that our measurement show that it is Ericsson’s equipment that is sharing well. It shares fair and equally with 802.11 deployments.

At 2018-11-14T13:48+07:00 the chairman continues from page 24 of his submission. At 2018-11-14T13:55+07:00 the chairman arrives at page 33 of his submission and attendees start discussing.

Comment: Is there a verb missing?

Comment: No, the sentence is okay.

Comment: The sentence should be improved.

At 2018-11-14T13:57+07:00 the chairman continues from page 34. At 2018-11-14T13:58+07:00 attendees discuss page 35.

Comment: If Ericsson’s position does not change does that mean that the document is delayed?

Comment: Right I am looking at the document and I see there still is a comment.

Comment: I believe Ericsson was given an opportunity to change the text. If they do not come up with an alternative, it will stay as is.

At 2018-11-14T13:59+07:00 the chairman continues from page 36. At 2018-11-14T14:00+07:00 an attendee make a comment.

Comment: I easily found two products that have been discontinued since their vendors cannot satisfy the requirements of version 2.1.1 of EN 301 893. Previously, they were able to satisfy version 1.8.1 of EN 301 893.

Comment: What if products do not follow the new requirements of 2.1.1?

Comment: Then, the EC might enforce further rules, or they will even revoke these products from the market.

At 2018-11-14T14:05+07:00 the chairman continues from page 38.

Comment: This will not work because of the consideration of antenna gain.

At 2018-11-14T14:07+07:00 the chairman continues from page 39.

Comment: This test is straight-forward just describes the logical sequence of what is needed to come to a result.

Comment: First the device is forced into a backoff stage. Then, the device is presented with an 802.11 preamble. Afterwards, the device behavior is tested.

Comment: What is the outcome?

Comment: If compliant, the device defers for the period indicated in the SIGNAL field of the PHY header.

At 2018-11-14T14:09+07:00 the chairman continues from page 40. At 2018-11-14T14:12+07:00 an attendee makes a comment:

Comment: There were discussions at the meeting in September.

Comment: The ED threshold changes were not accepted.

Comment: Have the latest TC BRAN submissions been uploaded to the 802.11 members area?

Comment: The WG chair uploaded the documents to the members area. Maybe there are not the latest documents.

At 2018-11-14T14:20 +07:00 the chairman arrives at page 49 and continues from page 54. At 2018-11-14T14:29+07:00 the chairman arrives at page 68.

Comment: Traditionally, July is a month off for 3GPP. It’s European vacation time.

Comment: There may be few attendees only.

Comment: But it’s in Europe so they need to travel less.

Comment: Probably, that’s the last opportunity for the workshop.

At 2018-11-14T14:31+07:00 the chairman continues from page 69. At 2018-11-38:05+07:00 attendees discuss page 74.

Comment: 3GPP also meets this week. At this meeting, they are talking about the 802.11a preamble. Intel, Charter, Broadcom support 3GPP mandatigs its use with NR-U.

Comment: Samsung, Ericsson, and Nokia have said no to the need of the preamble.

Comment: This is a very controversial topic.

Comment: We need to ensure that they are debating the right thing.

Comment: There is wrong information going around.

Comment: 3GPP does not want to force other technologies to rely on ED only. They just want to use a single ED threshold for sharing the spectrum between dissimilar technologies.

Comment: Technologies may still use a second, internally used mechanism for channel access.

Comment: Yes, you are right. They want a technology neutral value of −72 dBm for all.

Comment: No, the number is not yet fixed.

Comment: But they do not want us to use ED at −62 dBm.

Comment: It might be acceptable to 3GPP that everybody uses −62 dBm.

At 2018-11-14T14:45+07:00 Lili Hervieu presents 11-18/1893r0.

Comment: You should not talk about promises or commitments not held. There are also fundamental promises at ETSI that companies deliberately ignored.

Comment: Why is 802.11ax a revolution?

Comment: Because of spatial reuse.

Comment: I disagree. Spatial reuse happened before because technologies implent floating thresholds.

Comment: OFDMA is 802.11ax’ true revolution. There is an inner and an outer medium access.

Comment: 3GPP likes to show higher throughput numbers.

Comment; We should ignore them, it’s just marketing for fan boys. It’s the airtime that we need to share equally.

Comment: Yes, I agree.

Comment: They claim that Wi-Fi benefits from other technologies being there.

Comment: Yes, this can be easily understood. This is because 802.11 falls back to ED only under high load. We miss all the preambles and then Wi-Fi has a 10 dB advantage over other technologies. Thus, it’s more aggressive. Thus, the performance improves if a Wi-Fi network is replaced by a non-Wi-Fi network.

Comment: What does this technology neutral preamble mean?

Comment: There was some proposal back in our Korea meeting that a new preamble could be used in 6 GHz.

Comment: There was push back since it was too late.

Comment: Is the final goal to exchange information or is there any aspiration to have an agreement?

Comment: We cannot make agreements at the workshop. We could not empower our 802 Chairman to make decision on behalf of us and sign agreements with ink.

Comment: I just recently learned that the standard is the agreement. Regardless of what you promise, you can always break any agreements and decide differently.

Comment: How do we attend at the meeting? This needs to be clarified. Are we individual attendees or company representatives?

Comment: Last time, effectively we were invited guests to 3GPP. We were invited as individuals.

Comment: What we need here is a lightweight process for communication between the 3GPP and 802.11 as SDOs.

Comment: We should not invite regulators at the meeting. That is not helpful. People will just go into politics and be careful about every word etc.

Comment: Let’s avoid that we drive it up to a regulatory level.

At 2018-11-14T15:11+07:00 the chairman declares the meeting in recess.

# Thursday, 2018-11-15, PM1 session

At 2018-11-15T13:33+07:00 the chairman calls the meeting of the Coexistence SC to order. Andrew Myles acts a chairman of the meeting of the SC. Guido R. Hiertz acts as recording secretary.

At 2018-11-15T13:33+07:00 the chairman introduces document 11-18/1729r5. R4 of this document is on Mentor server. R5 of the document will contain any modifications that might occur out of this meeting. R5 will be uploaded after the meeting.

At 2018-11-15:15:35+07:00 the chairman presents page 74 of his document. Discussion about the best time begins:

Comment: I want Saturday otherwise the workshop reduces our 802.11 meeting time.

Comment: We cannot meet on Friday at the Convention Center, they will have a concert then.

Comment: On a weekend, 3GPP delegates will never attend, they don’t do this.

Comment: We need to sort out the location. Maybe we can meet at the Vienna IEEE office.

Comment: I propose that we declare Dorothy and Balazcs as joint chairs for the meeting.

Comment: Which other stakeholders shall we invite?

Comment: I understand that 10 were in favor, seven against.

Comment: Anyone interested in providing content shall inform 802.11 as soon as possible.

Stuart Kerry expressed an interest in providing a submission for the workshop.

Comment: My understanding is that the workshop is for coexistence between 802.11 and 3GPP standards.

Comment: We should allow 802.15 and UWB to attend. However, we need to ensure that not too much meeting time is spent on other topics.

Comment: We need a well-structured agenda upfront.

Comment: The agenda needs to come at the right time.

Comment: The agenda should be agreed beforehand between the two chairs.

Comment: I would like to know a month before what presentations are.

Comment: 3GPP does have a submission deadline of one week before a meeting.

Comment: What does that mean to coexistence with 5.9 GHz ITS?

Comment: The first center frequency for 802.11ax band is at 5.945 GHz

Comment: The current agenda item mentions 5 GHz and 6 GHz.

At 2018-11-15T13:56+07:00 Shubhodeep Adhikari presents 11-18/1888r0.

Comment: You are making incorrect statements about the standard and the use of 25 µs access.

Comment: What I meant is the use of features found in the market.

Comment: 802.11ax has Carrier Sense bit for CS within 16 µs after a trigger frame has been received.

Commetn: Yes, this is new.

Comment: In 802.11 we can transmit up to 5.5 ms w/o knowing the receiver situation.

Comment. We always create ACKs regardless of state of medium.

Comment: The concern about NR-U is that the receiver side might transmit for a very long duration.

Comment: For everybody sake, we have to make use of the spectrum as good as possible.

Comment: I am not saying that RTS/CTS is good in general. The fact that we introduce a spatial reuse enhancement in 802.11ax shows that we have problem.

Comment: We think it is dangerous if a node can have sensing done by another one.

Comment: The gNB could always have one UE (out of 50 or so) do the backoff for it.

Comment: We could do a different bonding that is more efficient.

Comment: We need to go forward with technology. We restrict ourselves. Think about the presence of 802.11b in 2.4 GHz and protection mechanisms. We could do the same in 5 GHz for 802.11n and 802.11ac if none are present anymore.

Comment: The argument, that the preamble is very helpful and important, is very compelling to operators. They agree with us.

Comment: Lesson is that if we make a good case then we can get our idea adopted/supported by others.

Comment: At 3GPP, there are eleven companies now supporting the use of 802.11a preamble.

Comment: Broadcom has done a good job in getting the use of the 802.11 preamble be supported in NR-U.

Comment: We need to utilize the fact that operators are now supporting us on the 802.11 preamble use.

Comment: I agree that all companies should send people to 3GPP to influence.

Comment: Is the workshop too late?

Comment: Should we do something between now and the workshop?

Comment: Maybe we should create documents about each of the issues, what the problems are.

Comment: Maybe we should liaise the information to 3GPP.

Comment: In 3GPP a single company can object. Then there are zero chances for changes.

Comment: I believe you are saying the reality is the opposite of what the RAN chairman says. The decision is already taken at the closure of the Study Item.

Comment: We need to have something clear out of the January meeting.

Comment: This is our last chance.

Comment: I may not attend 3GPP meetings at all anymore.

Comment: At 3GPP not attending one meeting is like attending no meeting at all.

Comment: ETSI is our tool. It is very powerful to change common practice and to force 3GPP that they must do what we want.

Comment: There are contributions that call for allowing local exceptions in China, India, US that allow for non-LBT schemes etc.

Comment: Here, we could create cases for each issue we identify.

Comment: My company has a three-billion-dollar business and we are at risk here.

At 15:05 the chairman goes to page 79 of his submission.

Comment: We have to be totally honest about the standard, what it implements and what is used. No random arguments.

Comment: An explanation needs to be a stand-alone document that has somebody presenting it.

At 15:11 the chairman adjournes the meeting.