IEEE P802.11
Wireless LANs

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| Minutes of the September 2018 meetings of the IEEE 802.11 Coexistenence Standing Committee (SC) |
| Date: 2018-09-27 |
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Abstract

This document contains the minutes of the September 2018 meetings of the IEEE 802.11 Coexistence Standing Committee (SC). The SC met on Wednesday and Thursday during the IEEE 802.11 meeting week.

# Wednesday, 2018-09-12, PM1 session

At 2018-09-12T13:31-10:00 the chairman calls the meeting of Coexistence Standing Committee (SC) to order. Andrew Myles acts as chairman of the SC. Guido R. Hiertz acts as secretary.

The chairman presents 11-18/1378r3 that contains the proposed agenda for today’s and tomorrow’s meetings of the SC. At 2018-09-12T13:32-10:00 the chairman presents slide 4.

At 2018-09-12T13:33-10:00 the chairman asks for approval of the agenda on page 7 contained in 11-18/1378r3. The SC approves the agenda by unanimous consent.

At 2018-09-12T13:34-10:00 the chairman continues from page of 11. At 2018-09-12T13:35-10:00 the chairman asks for approval of the minutes of the previous meeting that are contained in 11-18/1333r0. Nobody objects to approving the minutes by unanimous consent.

At 2018-09-12T13:34-10:00 the chairman continues from page 16 of his presentation. At 2018-09-12T13:37-10:00 the chairman presents document BRAN(18)099004. At 2018-09-12T13:40-10:00 the chairman concludes his presentation.

Comment: A notified body approves state of the art only.

Comment: The rules regarding product approvals by a notified body are unclear to me.

Comment: In approving a product, a notified body assumes all risks. A notified body may also approve products that do not comply with any Harmonized Standard.

Comment: It is likely that a notified body bases its decision on some standard or regulatory documents etc.

At 2018-09-12T13:43-10:00 the chairman presents page 18 of 11-18/1378r3. At 2018-09-12T13:46-10:00 the chairman presents BRAN(18)099023r0. At 2018-09-12T13:54-10:00 the chairman concludes his presentation of BRAN(18)099023r0.

Comment: According to our information this is not an LAA LTE device because it is using channel 32. Other indications also hint that this cannot be LAA LTE.

Comment: Where was the test performed?

Chairman: The test was conducted neither in the US nor in Europe.

Comment: In other jurisdictions the behaviour of the product by vendor A may be legal.

Comment: Vendor A does not implement LAA LTE. The 3GPP specification does not permit such behaviour. Vendor A might be implementing a proprietary version of LTE in license-exempt spectrum.

Chairman: It was claimed to be an LAA device.

Comment: Vendor A’s device does not comply with 3GPP’s LAA LTE specification. It’s a different technology.

Chairman: I ask everyone not to draw any conclusions from this presentation.

At 2018-09-12T13:58-10:00 the chairman presents page 22 of 11-18/1378r3. At 2018-09-12T14:00-10:00 the chairman presents BRAN(18)099002r1.

Comment: In EN 301 893, what are the rules for bonding channels?

Comment: They are similar to the 802.11 rules.

Comment: An operating channel is well defined in EN 301 893. The operating channel is the one in use not the ones that the device is capable of.

Comment: The initial proposal in BRAN(18)099002 would have prohibited 802.11’s way of sensing secondary channels.

At 2018-09-12T14:08-10:00 the chairman continues from page 25 of 11-18/1378r3 and shows page 7 of BRAN(18)99003r1.

Comment: What does it mean to detect any COT detectable?

Comment: Essentially the idea is that anything about the −72 dBm threshold should prevent the COT to be continued.

Comment: The proposed text is ambiguous and difficult to understand.

At 2018-09-12T14:12-10:00 David Boldy presents BRAN(18)099013r1.

Comment: This does not work because a COT is permitted to have gaps of less than 16 µs resp. 25 µs and gaps that exceed 100 µs.

At 2018-09-12T14:20-10:00 David Boldy presents BRAN(18)099014r0.

Comment: Today, the ED threshold is a function of a device’s transmit power. Is my understanding correct that you are concerned that if a device uses a high transmit power that it could receive a grant from a device that implements a low transmit power?

Comment: Yes.

Comment: How do you know my transmit power?

Comment: The manufacturer declares the maximum transmit power. This declaration defines the sensing threshold for the life of the device.

Comment: IEEE 802.11 devices employ a static sensing threshold.

Comment: The proposed modification harms 802.11 operation.

Comment: We whould not have too many rules. Then, things become untestable.

Comment: Your proposal does not achieve anything since the device using a higher sensing threshold has a lower transmit power. Its transmissions don’t go far.

Comment: The lower the transmit power the less potential interference. Thus, it’s no problem that the device uses a higher sensing threshold.

Comment: We apply the same logic in 802.11ax.

Comment: Trying to cover all corner cases is impossible. We should focus on real coexistence problems.

At 2018-09-12T14:34 -10:00 the David Boldy presents BRAN(18)099015r0.

Comment: The paused COT just causes pain. It’s a never-ending construction site.

Comment: I don’t understand what is being proposed here. I cannot decode it.

Comment: This proposal does not make sense.

At 2018-09-12T14:41 -10:00 the chairman presents BRAN(18)099017.

Comment: The European Commission has all Harmonized Stanards reviewed by consultants. The consultants will not accept that testing is optional.

Comment: My employer is okay with removing the permission to declare instead to test.

At 2018-09-12T14:46-10:00 the chairman asks Guido R. Hiertz to comment on BRAN(18)099020.

Comment: This submission proposes how to test that a device adheres to the 802.11a preamble.

Comment: If we cannot refer to the 802.11 standard, we could refer to the HiperLAN/2 preamble. They are equal.

Comment: Providing a normative reference to a published standard is not an issue. We don’t need the reference to HiperLAN/2.

At 2018-09-12T14:59-10:00 the chairman continues to present from page 37 of 11-18/1378r3. At 2018-09-12T15:00-10:00 David Boldy presents 11-18/1642r0. At 2018-09-12T15:08-10:00 David concludes his presentation. At 2018-09-12T15:09-10:00 the chairman presents from slide 39 of 11-18/1378r3.

Comment: The 802.11 standard clearly specifies that a beacon is sent after contention.

Comment: I agree with you. The text in 802.11-2016 is unambiguous. However, please review the MLME clause in the 1997 or 1999 version. There, the text describing beacon transmission is not as straigthfoward.

Comment: Some products behave in a different way. They transmit beacons after PIFS without backoff.

Comment: EN 301 893 permits transmissions without backoff if the duration of such transmissions does not exceed 2500 µs within 50 ms.

Comment: Yes, this is correct. Previous versions of EN 301 893 kept the beacon frame under this rule.

Comment: Misunderstanding may arise from Robert Stacey’s and Eldad Perahia’s book. In their book they show that the beacon frame would be sent after PIFS without backoff.

Comment: In contrast to the NR-U signals, the 802.11 beacon frames come less often.

Comment: But FILS brings discovery signals that come more frequently.

At 2018-09-12T15:19-10:00 the chairman presents slide 43 of 11-18/1378r3. At 2018-09-12T15:20-10:00 David Boldy presents slide 8 of 11-18/1642r0. At 2018-09-12T15:23-10:00 the chairman declares the meeting in recess.

# Thursday, 2018-09-13, PM1 session

At 2018-09-13T13:32-10:00 the chairman calls the meeting of the Coexistence SC to order. Andrew Myles acts as chairman of the SC. Guido R. Hiertz acts as secretary. The chairman reminds attendees that all rules mentioned during yesterday’s session still apply.

The chairman presents page 45 of 11-18/1378r5 that contains the agenda for today’s meeting.

At 2018-09-13T13:35-10:00 the chairman continues from page 50 of 11-18/1378r5. At 2018-09-13T13:42-10:00 attendees discuss page 52 of the submission.

Comment: Last time we had a joint meeting in Beijing. 802.11 visited 3GPP.

Comment: This time they should visit us.

Comment: We can avoid delays through formal responses if we discuss face to face with them.

Comment: Have they indicated awareness of our invation? Do they know our meeting locations?

Comment: Is there a way to make an informal inquiry?

Comment: I wouldn’t mind having the meeting at a 3GPP meeting.

Comment: The previous workshop was one full day.

Comment: Almost certainly it won’t be in January.

At 2018-09-13T13:50-10:00 the chairman continues from page 53 of his submission. At 2018-09-13T13:54-10:00 David Boldy presents from page 7 of 11-18/1642r0.

Comment: My colleagues tell me that there several companies that objected. There was no group of companies. And Ericsson did not lead any group.

At 2018-09-13T13:55-10:00 the chairman continues from page 55 of 11-18/1378r5.

Comment: Is there anyone considering contributing to the workshop?

Comment: There are two who would contribute.

Comment: Who would not contribute?

Comment: Looks like there is one person that does not want to contribute.

At 14:00 The chairman introduces BRAN(18)099019r0.

Comment: We had an earlier discussion at TC BRAN when we identified clause 17.3 as a potential source for preamble detection.

Comment: My colleagues believe this is addressing too much. They want to have it narrowed down to the bare necessary.

Comment: Clause 17.3.6 refers to CCA and clearly states all conditions that need to be fulfilled.

Comment: I would not want to have the term exception included because of the European Commission’s review.

Comment: Any word “exception” will cause trouble with the EC.

Comment: I agree. This term must be avoided.

Comment: I will object to introducing the term exception in EN 301 893.

At 2018-09-13T14:10-10:00 the chairman continues from page 59 of 11-18/1378r5. At 2018-09-13T14:17-10:00 attendees discuss.

Comment: The consequences of such definition on channel access for our technology are dangerous.

Comment: Your absolutely right, trying to define blocking energy is really hard.

At 2018-09-13T14:19-10:00 the chairman continues from page 61 of 11-18/1378r5.

Comment: It is a grey area. There are obvious cases where for example a signal indicating that I want to use the medium is helpful.

Comment: I disagree. The use of CTS is only useful for 802.11 not for other technologies.

Comment: CTS serves a purpose for 802.11. It sets the MAC layer based NAV.

Comment: In contrast, the 3GPP folks say that blocking energy has no purpose.

Comment: In a liaison to us they say blocking energy is unnecessary for performance.

Comment: It may be necessary for function and not for performance.

Comment: The German authority BNetzA disagrees with Cisco’s view on blocking energy. In a separate submission that you are not showing they explain that they prohibit the use of so-called containment features in Germany. Some 802.11 vendors offer equipment that spoofs MAC addresses to send fake deauthentication messages to nearby BSSs.

Comment: Yes, but it’s clearly stated in the product that this method must not be misused. It’s being enabled at the risk of the user.

At 2018-09-13T14:32-10:00 the chairman continues from page 67 of 11-18/1378r5. At 2018-09-13T14:40-10:00 the chairman declares the meeting adjourned.