IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Minutes of the May 2023 meeting of the IEEE 802.11 Coexistence Standing Committee | | | | |
| Date: 2023-06-14 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Guido R. Hiertz | Ericsson GmbH | Ericsson Allee 1 52134 Herzogenrath Germany |  |  |

Abstract

This document contains the minutes of the May 2023 meeting of the IEEE 802.11 Coexistence Standing Committee.

Meeting location: Hilton Orlando Lake Buena Vista, Lake Buenavista, Florida, USA

1. At 2023-05-17T16:03-04:00 the chair calls the meeting to order. Marc Emmelmann acts as chair of the IEEE 802.11 Coexistence Standing Committee (SC). Guido R. Hiertz acts as recording secretary.
   1. The chair presents 11-23/582r2 that contains the proposed agenda. At this moment, this document is equivalent to 11-23/582r1. The latter is stored on Mentor server. Any modifications to the agenda will be contained in 11-23/582r2.
   2. The chair presents the following motion:
      1. “Move to approve Coex SC agenda as contained in 11-23/0582r2.”
      2. Moved: Rich Kennedy
      3. Seconded: Sebastian Max
         1. The motion is approved by unanimous consent.
   3. As part of the approval of the consent agenda, the following motions are approved.
      1. Approval of minutes: “Approve the Coex SC minutes as contained in 11-23/0484r1”.
2. At 2023-05-17T16:05-04:00 the chair presents 11-23/548r1 and reminds all attendees of their obligations when attending IEEE 802.11 meetings.
3. At 2023-05-17T16:11-04:00 Guido R. Hiertz presents 11-23/871r0. Guido ends his presentation at 2023-05-17T16:18-04:00
   1. Comment: Where will ETSI TC BRAN meet?
   2. Comment: All ETSI TC BRAN’s meetings are scheduled to meet at ETSI’s headquarter in Sophia Antipolis, France.
4. At 2023-05-17T16:19-04:00 Rich Kennedy presents 11-23/628r1. He concludes his presentation at 2023-05-17T16:27-04:00.
   1. Comment: Do you want PSD changes?
   2. Comment: Will ask in the second FNPRM for something that better suits Bluetooth.
   3. Comment: 2.4 GHz is used for adveristing services. Will you advertise in 5 GHz and 6 GHz, too?
   4. Comment: I cannot speculate about what the new version might bring.
   5. Comment: What is the status of these groups that you want to bring together?
   6. Comment: We have three groups in BT running. Have sent letters to send all BT members. There are 40 000.
   7. Comment: Which of the BT group is doing the coexistence?
   8. Comment: Currently, all these three BT groups work on coexistence.
   9. Comment: Is there any anticipated interaction with regulators on 5 GHz?
   10. Comment: No.
   11. Comment: So, your focus is on 5 GHz first and 6 GHz later?
   12. Comment: Yes. We want to talk with the FCC, now. We want to let the FCC know that they shall not wait for BT in 6 GHz. We will do 5 GHz first. BT does not want to impose any delay for Wi-Fi in 6 GHz.
5. At 2023-05-17T16:33-04:00 Stuart Thomas presents 11-23/877r0. He concludes his presentation at 2023-05-17T16:41-04:00.
   1. Comment: You are saying that NB sees the beacons and evacuates the channels based on that. The beacon is 20 MHz. How would a narrowband system know about a wieder signal?
   2. Comment: NB is scanning the band already.
   3. Comment: The NB can see the 140 MHz of a 160 MHz if just looking at beacons. That’s before the real throughput starts.
   4. Comment: Anything that exceeds the threshold in 500 MHz will be detected and eDAA would pick it up and evacuate.
   5. Comment: My simulations are based on what was proposed in ETSI BRAN. The duty cycle could be very low. It would be great if eDAA would evacuate even under low occupation. The propose ETSI channel rules do not say that at moment.
   6. Comment: It would be a waste if NB FH excludes 160 MHz if there is a low duty cycle. It’s better to quickly detect the presence anywhere in the spectrum. Better to have agile response.
   7. Comment: Our intention is always to see both. Usually, NB FH devices are small and battery powered. They require low latency, for example for audio. There is a fair trade of narrow and wideband in the spectrum. We get to this point.
   8. Comment: I see that you do not want to use spectrum that is busy because of latency implications.
   9. Comment: Why are you saying on slide 4 that these parameters are better.
   10. Comment: It’s a use case scenario rather than maximum spec. numbers.
   11. Comment: On slide 5, in my figures I just see the backoff delay. What you are seeing is the packet time. That’s the duration to transmit the packet. To get onto the air takes just a few hundred µs.
   12. Comment: On page 6, this is simulation with LBT. I assume this is short LBT.
   13. Comment: Yes
   14. Comment: I saw that there is so many short CCA that they would also occur in SIFS and backoff gaps. Most CCA would detect traffic but often see nothing, too. I also presented two variants of LBT in my simulations. One is not very practical. The other is the CCA trigger method that evacuates the spectrum in 20 MHz segments. This would improve things a lot. This would be more pracitical than extending CCA duration. Would you be willing to try the other option, too?
   15. Comment: Yes, we can look at other options, too.
   16. Comment: I guess the access delay starts at 500 ms?
   17. Comment: Yes.
   18. Comment: It takes Wi-Fi half a second to reach full throughput. If it is intermittend traffic, Wi-Fi would wait 500 ms each time. That’s an issue. How do you see that?
   19. Comment: NB won’t be at work in Wi-Fi channels if there is traffic.
   20. Comment: In your simulations this solution would never hit SIFS or backoff gaps causing it to come to a channel.
   21. Comment: We did not see this in our simulations.
   22. Comment: Any info on your scanning on how it determines these gaps would be great to know.
   23. Comment: It’s a good point in practical scenarios that beacon bandwidth is different than BSS bandwidth. It’s good to look in analysis where 160 MHz is uses for transmissions in the BSS and 20 MHz is used for beacon transmissions.
   24. Comment: There are many choices to make in simulations. What is reasonable or typical is important to come to real-world scenarios. Find values comfortable for all. Lots of corner cases.
   25. Comment: A practical scenario might be a conference like this. Different APs work at on different channels. All channels could be occupied. Duty cycle is really important in dense environments. If all channels are occupied, of course not all the time, do you think eDAA and LBT should be combined? What would this look like. Do you see any value at looking at both combined?
   26. Comment: It is always worth looking at both because we want to be as flexible as possible. It is always valuable to understand.
   27. Comment: Is there a document that describes eDAA?
   28. Comment: There is a contribution to ETSI TC BRAN.
   29. Comment: Is there anything to speed up the detection of Wi-Fi? It takes you 500 ms.
   30. Comment: There is always room to improve aspects on the cost of other aspects.
   31. Comment: Copies of all ETSI TC BRAN documents are available from the IEEE 802.11 members’ area.
6. At 2023-05-17T17:12-04:00 the chair declares the meeting adjourned.