IEEE P802.11  
Wireless LANs

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| Minutes of the March 2015 meeting of the IEEE 802.11ax Spatial Reuse ad hoc group | | | | |
| Date: 2015-03-11 | | | | |
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Abstract

Meeting minutes of the IEEE 802.11ax Spatial Reuse ad hoc group

Chairman: Laurent

Vice-Chairman: Jason

Secretary: Guido

At 08:00am the chairman calls the meeting to order. The chairman reads out slides 4 to 14 of 11-15/398r1. Thereby the Chairman informs the ad hoc group about the IEEE patent policy. At 08:06 the chairman calls for essential patents. Nobody speaks up.

The chairman asks for approval of the meeting agenda. The authors of 11-15/320 remind that their submission was presented during a Task Group session already. Thus, this submission is removed from the agenda. The authors of 11-15/338 postpone their submission for later presentation. The chairman proposes the following order of presentations therefore:

* 11-15/0318, CCA Regime Evaluation Revisited, Newracom Inc.
* 11-15/0367, OBSS preamble detection, Qualcomm
* 11-15/0371, Proposal and simulation based evaluation of DSC-AP Algorithm, UPC
* 11-15/0319, Impact of TPC coupled to DSC for legacy unfairness issue, Sony
* 11-15/0374, Further Considerations on Legacy Fairness with Enhanced CCA, WILUS Institute
* 11-15/0300, Potential of Modified Signal Detection Thresholds, Ericsson

The agenda in 11-15/398r2 is approved by unanimous consent.

At 08:09 Reza Hedayat presents document 11-15/318r1. Author finishes presentation at 08:24

Question (Q): Other presentations show benefits of TPC. Why not here?

Answer (A): Curves show differences. E.g. solid and dashed curves on page 13. Little is lost with fixed threshold.

Q: Are the lines showing frames that are not sent?

A: Curves show possibilities where could have been sent but CCA prevented it.

Q: What is the impact of MCS?

A: Distance on X-Axis shows switching from one MCS to next.

This presentation is not proposing anything. It’s showing upper bounds

Q: How do you account for the location of a secondary transmission?

A: Considering all possible locations in primary and secondary. Secondary is bypassing CCA for legacy (primary).

Q: What about the location of the nodes

A: Black is primary node, it’s fixed. Secondary node distances are varying. All over the places.

Comment (C): There are a lot of areas where nodes do not affect each other. Thus numbers for spatial reuse are small.

At 08:42 Gwen Barriac presents 11-15/0367r0.

C: We should be very careful about preamble detection. In dense environments preamble errors might be a problem.

Q: Why do you defer for 20 ms, see slide 6?

A: This was one assumption in this simulation. Just gives a rough number. This is maximum number one defers.

Q: You are saying if own BSS has transmission ongoing you are still counting OBSS detection errors?

A: Yes, they go into total attempts to decode

C: With full buffer assumptions this makes things look much worse

A: Yes, agree.

C: I would like to see a revision of this simulation. You are showing average numbers. There might be something to worry at the edges of the scenario. I am not talking about a solution. Want to see more data if some station is troubled by concurrent transmissions.

Q: What about a reuse of 1?

A: See the appendix please. It’s worse.

At 09:09 Eduard Garcia-Villegas presents 11-15/371r2. ´

Q: Are you assuming an energy detection level of -78 dBm as shown in Appendix? Could this be the reason for very little reuse?

A: Will check the simulation scenario

C: Results are not surprising since there is no aggregation. Also there are many channels so there is little chance for concurrent transmission.

At 09:31 Masahito Mori presents 11-15/319r1.

Q: You are doing DSC and TPC at the same time?

A: Yes, we combine it.

C: Interesting statements about fairness. Believe fairness is some kind of illusion.

At 09:41 Ju-Hyung Son presents 11-15/374r1.

C: This is using static CCA thresholds only. Thereby you shut out adjacent apartments. You need dynamic CCA to prevent impact on legacy stations in neighbour BSS.

No other business is brought forward.

At 9:57 the chairman adjourned the meeting.