IEEE P802.11
Wireless LANs

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| Minutes of the May 2015 meeting of the IEEE 802.11ax Spatial Reuse ad hoc group |
| Date: 2015-05-12 |
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Abstract

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

**5/12/2015 – AM2 session**

Chairman: Jason

Vice-Chairman: Guido

Secretary: Laurent

At 10:30am the chairman calls the meeting to order.

The Chairman informs the ad hoc group about the IEEE patent policy.

The chairman calls for essential patents. Nobody speaks up.

Minutes from previous meeting were already approved during TG session.

The chairman asks for approval of the meeting agenda based on 650r0.

Request to present 652r0. No objections to add it at the end of the agenda.

Request to move 588r0 as the first presentation. No objections.

New agenda:

* **11-15/0588r0, CCA revisit II, Amin Jafarian**
* **11-15/0543r2, Simulation Scenario changes for Frequency Re-use, Graham Smith**
* **11-15/0544r0, Proposed text additions to 14/980 for frequency re-use, Graham Smith**
* **11-15/0548r0, Enterprise Scenario and DSC, Graham Smith**
* **11-15/0595r1, Discussion on the Receiver Behavior for CCAC DSC with BSS Color, Yasuhiko Inoue**
* **11-15/0652r0, Reference Simulation Model for Dynamic CCA / DSC Calibration, Masahito Mori**

The new agenda is approved by unanimous consent.

Reza Hedayat presents document 11-15/588r0.

Question (Q): 4 BSS case, how do you place the APs and STAs?

Answer (A): all possible droppings in an area, all 4 BSS are at a max -82dBm of the primary

Q: clarify the conclusion

A: CCA is not the only solution, we should check other parameters (interference to the receiver).

C: doesn’t necessarly contradict

Q: clarify difference between curves in green and red?

A: different metrics to allow spatial reuse with regards to impact on the primary transmission

Q: should also push your results with -62Bm

A: yes

Q: what about backoff?

A: currently it’s only PHY simulations

Q: zigzag curves shows a good behaviour to take into account the victim in the reuse channel access.

Q: STAs are aware of the interference they produce on the victim? How can you do that, and how many STAs could access the channel?

A: should be a mechanism for this. Currently we just try to show the bounds of the performance.

Q: do you intend to take into account the ACK in the reverse link in your simulations?

A: will think about it

Q: idea on how this analysis transfers to the actual throughput gains?

A: good point, idea was to be complementary to the throughput results

Q: in reality, the transmitter won’t have all the information

A: right, these are simulations

Strawpoll:

1. **Do you agree that:**

**A STA is allowed to transmit even if the channel is busy if some specific condition is met.**

**Y/N/A:**

Q: Purpuse of the strawpoll:

A: Just survey

Q: unclear what the specific condition is met

Q: should take into account the response

A: OK, I can merge the 2 stawpolls

Q: clarify busy?

**A STA is allowed to transmit even if the channel is busy according to Clause 22 if some specific condition is met.**

* **One instant of the above condition is limiting the maximum amount of interference caused by the secondary pairs transmission on the primary receiver.**

Q: can we consider that the secondary transmission is aware of all information?

A: don’t consider that here

C: sometimes you don’t even detect the preambles

Q: no impact on the primary is very conservative

Y/N/A:17/1/23

11:40 Graham Smith presents document 11-15/543r0.

Q: clarify intelligent assignement in slide 6

A: keep simple for now, detail it after

Q: do not agree to make changes in the scenarios to meet your proposal?

A: if we can define mechanisms for reuse 7, that’s good to have.

Q: lot of changes, might be better to focus on a specific scenario.

Strawpoll:

**Do you agree that the proposed text as per 15/0544 r0 for frequency re-use be added to the Simulation Document 14/980?**

Q: we should include adjacent channel interference to the sims and the strawpoll

A: point noted, stay as is right now

**Y/N/A: 2/14/28**

12:09 Graham Smith presents document 11-15/548r0.

**Do you agree to add to the Spec Framework Document:**

**“5.2 Frequency Re-Use**

**The amendment shall include one or more mechanisms to improve frequency re-use by adjustment of the sensitivity and/or CCA threshold levels.”**

C: I want to be more protective to the victims. I have another philosophy

C: spatial reuse instead of frequency reuse

New text:

**The amendment shall include one or more mechanisms to improve spatial re-use by adjustment of the sensitivity and/or CCA threshold levels.”**

**Y/N/A: 17/6/11**

SR ad hoc meeting in recess

**5/12/2015 – PM1 session**

Chairman: Guido

Secretary: Laurent

At 01:30pm the chairman calls the meeting to order.

The chairman calls for essential patents. Nobody speaks up.

Yasuhiko Inoue presents 0595r1, Discussion on the Receiver Behavior for CCAC DSC with BSS Color

Q: slide 9 results: many results show that OBSS preambles are not always decoded

A: that’s true, these results are just simple ones.

Q: how would that be compared to DSC? What about rate selection?

A: not yet done

Strawpoll:

**Do you agree to have a model of receiver behavior to evaluate the performance of DSC/CCAC technique?**

Q: What is the receiver behaviour?

A: make sure it capture all effects of incoming interference

Q: What’s the intention? Put in the evaluation methodology?

A: yes at some point

Y:14/5/29

Masahito presents 0652r0, Reference Simulation Model for Dynamic CCA / DSC Calibration

C: good to calibrate but there are already MAC calibration process in the simulation scenario document

A: we want to make sure that the calibration is good

Chair asks if there are any other business. No requests.

The meeting is adjurn.