IEEE P802.11  
Wireless LANs

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| TGbi Teleconference Minutes 16 December 2021 | | | | |
| Date: 2021-12-24 | | | | |
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Abstract

This document contains the minutes for the IEEE 802.11bi task group meeting that took place on 16 December 2021 at 09:00 ET.

Note: Highlighted text are action items.

Q – proceeds a question

A - proceeds an answer

C - proceeds a comment

Yellow highlight - action point

**Chair: Carol Ansley, Cox Communications**

**Secretary: Amelia Andersdotter, Sky UK**

**Vice-chairs: Jerome Henri, Cisco; Stephen McCann, Huawei**

**Technical editor: Po-Kai Huang, Intel**

Chair calls meeting to order at 09:03 ET.

Agenda slide deck: 11-21-2001r1:

1. Reminder to do attendance
2. The chair mentioned the call for essential patents
   1. No one responded to the call for essential patents
3. The chair covered the IEEE copyright and participation rules.
   1. No questions
4. **Discussion of agenda 11-21-2001r1 (slide #16)**
   1. Adoption of agenda 11-21-2001r1 slide #16 by unanimous consent.
5. **Administrative:** 
   1. Three two-hour sessions scheduled for IEEE 802 Interim 17-21 January.
   2. Chair calls for presentations to be able to plan the sessions.
   3. It is also foreseen that the January interim meeting will be the closing motion for the use-case document.
6. **Discussion:** 
   1. **Brief review of requirements tracking document (11-21-1848r2)**

One table to summarize the requirements, referencing current status of requirement and associated use-cases. Another table will include references to use-case, minutes, presentations, etc. and documentation that could support the requirement. The document also contains an outline of the process for adding or bringing up requirements for discussion.

**Discussion**

C: This would be a departure from current use of AID. Just so that people are aware of that.

Q: What is the benefit of adding a deterministic selection of a rotating MAC address instead of having a stochastic selection?

A: Subsequent slides will go into further details on this.

Q: So here the mechanism proposed would allow the STA to change MAC address during the association, correct? But still wondering if what type of frame we are dealing with here, is it an Action frame or some other frame?

A: The AID frame is an Action Frame if I remember correctly, but I will have to look it up.

C: The idea of using AID to plug into the MAC address to enable plugging it into a database and facilitating searches, it's interesting, but I think you have a practical problem with switch frames that we need to study further. I also don't see how we can avoid having a degree of entropy, but we could also check whether this is possible to add in retrospect to your proposal.

Q: Is there entropy in how the AID is given out by the AP?

A: I think we need to have in the MAC address two bytes for the AID, but then you would easily end up in the situation where you can again do tracking. Maybe if we do hashing or similar of the AID?

C: In this scheme we would still make sure that every STA and AP knows which STA are associated to where. But we have this mobile AP use-case as well, where we had the aim of not enabling tracking of the AP and this system may not fully achieve those goals too.

A: Based on the previous comment we could use not the AP SSID but have a hash plan. Then the bytes from the AP could be pseudorandom as well and that would be able to protect AP mobility too, perhaps. We can continue to discuss.

C: We use AIDs to track and signal whether there is traffic buffered, for instance. In these cases it makes sense to see if AIDs are close to each other because it decreases the amount of data we need to store. But the AIDs as far as I understand cannot be chosen arbitrarily because they're used for these traffic management plans. Maybe we could encrypt this information instead? Did you consider this?

A: That would require much larger changes to the baseline standard.

Q: So is this address used in the DS on the LAN side or just over-the-air?

A: Anything in the local LAN could be used locally, but the real frames would have the real MAC address in it. We'll have to decide that and make further considerations.

C: Well, you definitely couldn't use this on the LAN side since the AID as assigned by the AP and not the ESS. As soon as you move on to a new AP you'd have to get a new AID.

A: I thought about the BSS transition mechanism too, some of the work in CableLabs might be helpful here but it's another consideration.

Q: I feel like this may not actually fix the SA/DA issue. But also the MAC address persistence issue, this really creates a bit of a problem for roaming post-association since you have AID databases per APs per association. So how could you randomize the AID and then carry the new randomized AID over to the other AP? Maintaining the state will be very difficult. But my suggestion would be to clarify that this is related to the post-association MAC randomization issues.

Q: Maybe you want to consider TDLS as well? Because we have a mapping there as well.

A: I had not thought about TDLS, thank you for that comment.

C: If we think about the over-the-air MAC addresses, we also have the TGbe spec that is already being created. It created MLDs where many STAs share the same MAC address on a BSS.

A: Yeah, I will still have to check how this affects the MLD operations in TGbe.

C: It's really just that many devices act logically as if they were one device, and this mechanism could then have less beneficial effects for privacy.

Chair: Is this something you want to strawpoll now?

A: I think I would wait until the interim session in January and work with people offline until then to refine along the lines that were addressed today. Thank you everyone.

1. AoB
   1. Reminder that there is an open call for presentations ahead of the interim session.
2. Chair adjourned the meeting at 09:48 ET.

**Attendance**

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| **Name** | **Affiliation** |
| Andersdotter, Amelia | Sky UK Group |
| Ansley, Carol | Cox Communications Inc. |
| baron, stephane | Canon Research Centre France |
| Bhandaru, Nehru | Broadcom Corporation |
| DeLaOlivaDelgado, Antonio | InterDigital, Inc. |
| Halasz, David | Morse Micro |
| Hawkes, Philip | Qualcomm Incorporated |
| Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| Huang, Po-Kai | Intel Corporation |
| Lumbatis, Kurt | CommScope, Inc. |
| Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| Rosdahl, Jon | Qualcomm Technologies, Inc. |
| Sevin, Julien | Canon Research Centre France |