IEEE P802.11  
Wireless LANs

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| Telecon Minutes - RCM SG - 11 May 2020 | | | | |
| Date: 2020-05-11 | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11 Random and Changing MAC Addresses (RCM) Study Group (SG) teleconference held on 11 May 2020 at 10:00 hrs EDT.

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# Monday 11 May 2020, 10:00 hrs EDT:

## Administrative:

**Administration:**

**Chair: Carol Ansley, CommScope**

**Acting Secretary: Peter Yee, NSA-CSD**

**The teleconference was called to order by Chair 10:04 hrs. EDT,**

Peter Yee, NSA-CSD volunteered to be acting secretary.

**Approval of the Agenda:**

The RCM SG chair, Carol Ansley (CommScope) displayed the agenda ([11-20/0733r00](https://mentor.ieee.org/802.11/dcn/20/11-20-0733-00-0rcm-rcm-sg-telecon-agenda-may.pptx)). She emphasized the guidelines for participating in the meeting including patent disclosure requirements. The purpose of this Study Group is the generation of a PAR (Project Authorization Request) and CSD (Criteria for Standards Development) for a proposed task group on random and changing MAC addresses. The minutes of the April 27th teleconference ([11-20/0664r00](https://mentor.ieee.org/802.11/dcn/20/11-20-0664-00-0rcm-telecon-minutes-rcm-sg-27-april-2020.docx)) were accepted without dissension. There were no requests to modify the agenda.

## Presentation and Discussion of One Proposed PAR:

Jerome Henry (Cisco) presented his proposed draft PAR ([11-20/0742r00](https://mentor.ieee.org/802.11/dcn/20/11-20-0742-00-0rcm-proposed-par-draft.docx)). He notes that his proposal is a first try at a PAR to get the discussion going. Anything in the draft that has not been highlighted in yellow in the document has not been modified from the usual PAR template. He noted that the number of participants expected is 50, which is a number that is frequently used in PARs. It’s not based on knowledge that there are definitely 50 named participants. The key statement in the scope of the project is “This amendment introduces mechanisms to enable session continuity in the absence of unique MAC address-to-STA mapping.” Henry noted that there are a few typos in the document that he will attend to. The PAR envisions that there might be a new management frame defined to support RCM features.

Mark Rison (Samsung) clarified if the point of the PAR was that things not break and that the user get (more) privacy during RCM operations. He then asked if that meant that privacy was not decreased, which Henry agreed with. Mark Hamilton (Ruckus Wireless/CommScope) said that the ad hoc on the topic decided that there were two pieces of work to be done by the proposed task group with two separate PARs. One covers ensuring that IEEE 802.11 mechanisms continue to work in the face of random and changing MAC addresses. That’s the one that Henry’s proposed PAR is addressing. The other PAR will look at privacy more closely, potentially including other mechanisms to ensure user privacy. That second PAR has not yet been drafted. The first PAR should do not additional privacy harm. Rison asked if that meant the PAR under discussion should not decrease user privacy. Henry agreed and he modified the PAR on the fly.

Rison also asked if we were only going to discuss non-AP STAs. Henry said that he has heard of AP vendors talking about randomizing AP MAC addresses and he wouldn’t object to that as a topic, but it hasn’t been discussed much before now.

Rison then asked if we should have a liaison to the Wi-Fi Alliance (WFA) to see what work they have done in this area. Henry also suggested a liaison with the IETF. He asked if the document would be jointly developed with other organizations. Rison thinks this is just asking them for information. Ansley agreed that the liaison is more for information, not for joint publication with another organization.

Osama Aboul-Magd (Huawei) said he understand that there would be two PARs and wanted to know which one was under discussion. It was clarified this is the one covering RCM operations, not user privacy. He wants “user experience” in section 5.2 to be enumerated or for examples to be given, since it’s a pretty fuzzy term. Hamilton said he was sympathetic to the point, but also said he was sympathetic to Henry’s needing to write the document without introducing too many new concepts. In truth, the plan is to preserve the existing IEEE 802.11 mechanisms that would otherwise be broken or restricted by the use of random and changing MAC addresses. Lili Hervieu (CableLabs) wants text added to cover use cases for troubleshooting, customer support, and arrival detection in a trusted environment to section 5.2.b. Currently, it only covers session continuity. Rison feels that these additions are starting to make the PAR look like what happened in IEEE 802.11aa, which had (too) many features and was not particularly successful. Hamilton suggests that we should aim to preserve (or not harm) existing features and mechanisms that would otherwise be restricted by RCM. Hervieu wants it to be clear that MAC address randomization is not part of what is being preserved. Hamilton responded he means preservation of existing services (like Hervieu wanted added to the use cases) in the face of MAC address randomization. Ansley noted that section 5.2.a needs to change because it mentions PHY work. It turns out that it should be left as is: it applies to the (eventually) merged IEEE 802.11 standard, not merely to the amendment. Henry went back his language about non-AP STAs. If he removes non-AP, that will allow the group to address APs, if desired. Hamilton pointed out that the client arrival use case might very well cover both AP and non-AP STAs. He says that there is a subtlety in IEEE 802.11(md)’s definitions that an AP changing its MAC address could be construed to be a new BSS. That could be outside of our scope. He would still be inclined to remove “non-AP” from the PAR. Rison agreed with the meaning of an AP changing its MAC address and BSS, but he too wants to remove “non-AP” from the PAR. Henry wants to know how AP MAC address change technically leading to a new BSS how that differs from a new AP. Hamilton wants to remove “non-AP” from the PAR so such a discussion of what IEEE 802.11 mechanisms are affected can be held in the task group. He wants to ensure that this PAR covers existing mechanisms. New mechanisms should appear in the other (to-be-drafted) PAR. Ansley asked if anyone on the call objected to removing “non-AP”. Hamilton asked if we only wanted to focus on infrastructure networks or peer-to-peer networks be in scope as well. Ansley doesn’t think we need to be that specific in the PAR. Hamilton wants to know if the group is willing to address non-infrastructure networks if someone shows up wanting to discuss those other types of networks. Hamilton suggested that the change should be “STAs in an infrastructure” if we want to exclude mesh networks and other non-infrastructure networks from the scope. Henry changed the wording to “STAs in an ESS”. In several instances, “non-AP” was simply deleted in the proposed PAR. Henry will post as revised version of the PAR to the document repository for review. Ansley will hold a straw poll during the next teleconference if there are no further changes proposed.

## Next Telecons and Schedule:

Ansley is proposing a teleconference for June 8th at 10 a.m. ET if there isn’t a conflicting IEEE 802.11 TGbe call. Hamilton asked what the overall schedule looks like. Ansley said that the study group was approved through the IEEE 802.11 Executive Committee meeting in July. It is possible to request an extension if we are not done with our work. Hamilton believes that the second PAR will be harder to generate. Given a current need to submit the PARs to the EC in July, we need to be done by mid-June to give the IEEE 802.11 working group sufficient time to perform an electronic letter ballot. Ansley will check the July EC date with an eye towards requesting an extension. We are meeting every other week. Another option would be to request additional teleconferences, if possible, to help speed up the PAR and CSD generation. Hamilton asks that we discuss the schedule and its dependencies at the next teleconference. A specific call for a second PAR addressing privacy also needs to be made. The next teleconference is May 25th.

## AOB:

The Chair called for any other business, there was no response to the call.

## Adjourned: 11:16 hrs. EDT

# Attendance:

The following recorded their attendance in the 802.11 IMAT attendance tool, or were noted on the Webex attendee list:

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| **Name** | **Affiliation** |
| Aboul-Magd, Osama | Huawei Technologies Co. Ltd |
| Ansley, Carol | CommScope |
| DeLaOlivaDelgado, Antonio | InterDigital |
| Fang, Yonggang | ZTE TX |
| Hamilton, Mark | Ruckus/CommScope |
| Henry, Jerome | Cisco Systems |
| Hervieu, Lili | Cable Television Laboratories (CableLabs) |
| Kain, Carl | USDOT/Noblis |
| Rison, Mark | Samsung Cambridge Solution Centre |
| Yee, Peter | NSA-CSD |

# References: