IEEE P802.11  
Wireless LANs

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| ARC SC Teleconference Minutes 11 October 2018 | | | | |
| Date: 2018-10-11 | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11 ARC SC teleconference held on 11 October 2018 at 12:00 EDT.

Note: Highlighted text are action items.

# Thursday, 11 October 2018, 12:00-13:30 EDT

**Administration:**

**Chair: Mark Hamilton, Ruckus/Arris**

**Vice Chair/Secretary Joseph Levy, InterDigital**

**Meeting call to order by Chair 12:03 EDT,**

Proposed Agenda:

Agenda:

1. Call to order, attendance, and patent policy (see below)

2. WBA liaison on MAC Address randomization impacts:

a. The WBA liaison can be found here: <https://mentor.ieee.org/802.11/dcn/18/11-18-1579-01-0000-2018-09-liaison-from-wba-re-mac-randomization-impacts.docx>.

b. Notes from ARC discussions during the Waikoloa session can be found here, as a starting point for our discussion: <https://mentor.ieee.org/802.11/dcn/18/11-18-1671-00-0arc-notes-for-response-to-wba-liaison-on-mac-address-randomization.docx>.

c. Continue discussion; formulate proposed response points for consideration by WG/WG Chair (plan is to align a WG response at the November session)

3. AOB

4. Adjourn

**Approval of the Agenda:**

The Chair reviewed the agenda and called for comments or amendments to the agenda – there was no response to the call.

The proposed agenda was approved by unanimous consent.

**Attendance:**

The Chair requested that attendees send an e-mail to the Chair and/or the Secretary to record their attendance.

Mark Hamilton, Ruckus/Arris

Joseph Levy, InterDigital

Yunsong Yang, Huawei

John Bahr, CableLabs

Randy Roebuck, OmniAir

Michael Montemurro, Blackberry

Roger Marks, EthAirNet Associates

Stephen McCann, Blackberry

Amelia Andersdotter, Article 19

Jon Rosdahl, Qualcomm

**Administration:**

The Chair reviewed the Administrative information and patent policy information provided in the meeting invitation. (copied below for reference)

*The conduct of this meeting is governed by IEEE, IEEE-SA and IEEE LMSC policies, which include: - IEEE Patent Policy - Ethics - 802 LMSC P&P - 802LMSC Operations Manual (OM) Links to the documents or web-pages describing the policies may be found here:* [*http://www.ieee802.org/11/Rules/rules.shtml.The*](http://www.ieee802.org/11/Rules/rules.shtml.The) *following documents provide additional information on the governing IEEE-SA policies: - Patent FAQ (*[*http://standards.ieee.org/faqs/patents.pdf*](http://standards.ieee.org/faqs/patents.pdf)*) - Affiliation FAQ (*[*http://standards.ieee.org/faqs/affiliation.html*](http://standards.ieee.org/faqs/affiliation.html)*) - Anti-Trust FAQ (*[*http://standards.ieee.org/develop/policies/antitrust.pdf)In*](http://standards.ieee.org/develop/policies/antitrust.pdf)In) *addition, the conduct of this meeting is governed by IEEE 802.11 Operations Manual (OM), which is also linked from here:* [*http://www.ieee802.org/11/Rules/rules.shtml*](http://www.ieee802.org/11/Rules/rules.shtml)*.*

**Call for Patents:**

The Chair called for potentially essential patents – there was no response to the call.

**WBA liaison on MAC Address randomization impacts:**

The WBA liaison can be found here: [11-18/1579r1](https://mentor.ieee.org/802.11/dcn/18/11-18-1579-01-0000-2018-09-liaison-from-wba-re-mac-randomization-impacts.docx).

Notes from ARC discussions during the Waikoloa session can be found here, as a starting point for our discussion: [11-18/1671r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1671-00-0arc-notes-for-response-to-wba-liaison-on-mac-address-randomization.docx).

**Discussion:**

The notes document ([11-18/1671r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1671-00-0arc-notes-for-response-to-wba-liaison-on-mac-address-randomization.docx)) is simply a copy of the LS with the notes taken during the September 802.11 ARC meeting. The notes document coming out of this meeting ([11-18/1671r1](https://mentor.ieee.org/802.11/dcn/18/11-18-1671-01-0arc-notes-for-response-to-wba-liaison-on-mac-address-randomization.docx)) will have corrected headers and cover page. It will also contain the newl notes and edits discussed and agreed during this teleconference. This is a working document to be completed at the November meeting.

**Discussion:** on changing MAC address during an association:

Comment: I don’t see that you could change MAC address during an association, it would break all kinds of stuff.

**Comment**: All the security keys are bound to the MAC address, so you break all security if you change the MAC address

**Discussion** on the wording of the comments regarding what 802.11-2016 says about MAC Addresses: It was questioned if these comments should say should or shall.

**There was general agreement** that these statements should say shall.

**Comment**: Is there a concern if the shall applies if it is an ESS not a BSS? This needs to be checked.

**Comment**: We should state it is not feasible at present, that is all we should state.

**Comment**: It states Shall in the spec – see 802.11aq amendment page 66, line 6, in clause 12.210

**Comment**: Isn’t there a requirement in the base line 802.11-2016 specification?

**The group generally agreed** to clean up the statement about privacy and the current use of randomization in the field to be:

For purposes of user privacy, IEEE 802.11 recommends against using any MAC Address as an identifier for a user or device.

Note: We believe random MAC Addresses are already used in the field during associations (static within the context of a given association).

Moving on to 1609.2 – In SAE J2945/1 it says you randomize the MAC address and any immutable data in the frame that will identify the user, as called for in the 802-address spec (currently 802c, but SAE J2945/1 predates 802.c). OCB means no association, so it is consistent with the 802.11 comments above.

**Comment**: Change IEEE 1609.2 to 1609.3

**Comment**: – 33-33 was a multicast address.

**Chair**: Can anyone confirm this? None forthcoming

The statement on IPv6 needs additional review.

**Question** – do we mean during association?

**Comment** – when you are using a random MAC address to associate, that is the associated MAC address.

**Adding a note to the general section to say:**

For purposes of user privacy, IEEE 802.11 recommends against using any MAC Address as an identity.

Fixed Device/user identification needs to use a specific mechanism that is permanently and privately connected to the device/user. We recognize that this a potential change to current behavior. Appropriate organizations should be brought in to the discussion (as you are doing) to solve the problem within their specific domains.).

**Comment** – fixing the comments on Passpoint profiles.

Proposal to not say anything. Or answer in the context of 11aq – We should just leave Passpoint to WFA.

General agreement to leave it to WFA.

**Discussion** on band steering: we should work through this solution with WFA.

Band steering is a layer 2 feature, the association is bound to the MAC address, today a 2.4 and 5 GHz STA currently have the same MAC address for band steering to work. This needs to be coordinated with WFA.

Client steering depends on the probes…

Refer to the general statement above and agree.

**Chair - on the timing of our response**: We requested additional time and they are aware we will respond out of our November meeting.

**Adjourn:** 13:30 EDT