Minutes IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 802.11 bh Meeting Minutes, March 29 2021 | | | | |
| Date: 2021-03 -11 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Graham SMITH | SR Technologies | Sunrise, Florida |  | gsmith@srtrl.com |
|  |  |  |  |  |

Abstract

This document contains the minutes of the IEEE 802.11 bh telecom meeting 29 March 2021 at 10.00 hrs EDT,

Note: Highlighted text are action items.

Q- proceeds a question asked at the meeting

A- proceeds an answer given by the presenter

C- proceeds a comment

**Meeting March 29, 2021 10.00 to 12.00 noon ET**

**Chair: Mark Hamilton**

**Secretary: Graham Smith**

**1. The teleconference was called to order by Chair 10.00 hrs. EDT,**

Agenda slide deck 11/21/0535r0

1. **Policies and procedures were presented by the chair. (Slides 5 to 14)**

There were no Patent declarations.

Copyright policy slides were presented (Slides 11 and 12)

1. **Agenda:**
   * Attendance, noises/recording, meeting protocol
   * Policies, duty to inform, participation rules
   * Organization topics:
     + Attendance, noises/recording, meeting protocol reminders
     + Policies, duty to inform, participation rules
   * Organization topics (see also Backup slides):
     + PAR/CSD: [11-20/1795r1](https://mentor.ieee.org/802.11/dcn/20/11-20-1795-01-0rcm-updated-bh-par-for-review.pdf); [11-20/1117r5](https://mentor.ieee.org/802.11/dcn/20/11-20-1117-05-0rcm-rcm-sg-proposed-rcm-csd-draft.docx)
     + Timeline estimate
   * Issues Tracking: [11-21/0332r2](https://mentor.ieee.org/802.11/dcn/21/11-21-0332-02-00bh-issues-tracking.docx)
     + Contributions:
   * Next meeting: Telecon on April 12, 10:00ET, 2 hours

The Chair reviewed the agenda.

Chair asked for contributions – none

The proposed agenda was approved without objection.

1. **Reviewed Timeline, background, organization**

Chair reviewed timeline, background and Work Organization

Chair asked for any comments. None

1. **Issues Tracking**

Suggestion is to use Issues tracking document. Has been presented before.

Chair then reviewed document 21/0332r2

Gist is to identify Use Cases, Section 3, where random MAC addresses cause problems

**Chair made notes in real time on the draft document Section 3 during the following comment exchanges.**

C – Liaison with WBA and WFA, do we assume their feedback will be on Use Cases. Will we incorporate these into this document?

A – Yes. Maybe do not necessarily wait for input from them

C – Popular smart phones do this, can we ask them if they have found problems? News reports that vendors changed implementations due to reports.

A – Hope participants do submit information rather than we pull info out of news articles.

C – What regulations are there?

A – There are legal intercept kind of things. Discussion in the TIG, but none here yet. If anyone aware of regulatory or legal requirements, please bring them up.

Q – How are we going to fill in the Use Cases?

A – Submissions are best.

Q – Would it be useful to make a submission on recent device behaviors? Univ. Colorado has captures which show what is out there.

A – Sounds good.

C – Not aware of any law appropriate to this.

C – Have made study on client behavior and will bring it to the group.

C – EU is getting interested in privacy issues.

Chair – Use cases maybe along lines of “this is what happened” whereas user expected something different. Note solutions may not be solvable by 802.11.

C – Do remember in the past a list of all identifiers was put into a document.

A – Scope is specific on Random MAC addresses. May be other protocols that are general concerns on privacy, and these are for TGbi.

C – IETF has started related work. Group to be formed maybe in July.

C – Lawful intercept - in EU concerns around privacy turning into laws to protect privacy. Might be requirements that operator knows who is attached to their networks, and this needs to be understood.

Chair introduced the TIG Report and went through parts of it. Idea is to pull brainstorming and information out of it.

Use Case – 3.1. *Initial infrastructure connection steering -* Raises pre-association concerns.

C – Useful Use Case. TGaz ranging may be affected. Collects various ranging info not realizing same device.

C – An infrastructure monitors probes and correlates info, network forms opinion where it should best connect. Network can’t tell if client moves around.

C – User consent needs to be accounted for? Where is it needed, or appropriate?

There were further discussions on details of this Use Case and possible solutions, with expectation of privacy.

Q – Should we have a mechanism that disallows RCM? – Lawful intercept?

A – Maybe make a Use Case?

Q – Is anyone looking at duplicate MAC addresses?

Q – Do we define how randomization is done?

Moved onto next Use Case “*Access Control and arrival detection in a home environment*.” Parental controls.

C – Is this all post association?

All initial expressed opinions agreed.

C – In TGbc a device can burst and local APs have choice to do something with it. Not sure if this is applicable.

A – That’s maybe another use case, e.g. what emergency services need to be supported?

C – Post association using an application maybe outside 802.11?

C – Present rules use same MAC for re-association?

C - A STA (re)associates with the same MAC address if it wants to maintain state with the network.

C – Concern is that is there anything that can be done in Std. to counter issues that a STA rapidly changing MAC address is causing?

C – Does a STA change MAC addresses as it jumps from AP to AP in a Hotspot?

C – Are there devices even doing that? Can’t change when roaming. That would be a new behavior not defined by the spec.

C – Is that the “same ESS”? Gets tricky.

Moved to next Use Case – *Airport security queue measurement*. Uses MACs to track time.

C – Devices not encouraged to actively scan or probe. Hence, maybe STAs can’t be tracked anyhow.

C – Not supposed to have phones on in security lines. Valid use case in other venues?

C – Tracking a device, would not be mandating a single MAC.

C – Maybe simply look at the number of probes to estimate queue?

**Out of time**

**Chair asked for Contributions.**

**Meeting Adjoined at 12 noon ET.**

**Attendance from IMAT:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbh | 3/29 | Ansley, Carol | IEEE Member / Self Employed |
| TGbh | 3/29 | Beg, Chris | Cognitive Systems Corp. |
| TGbh | 3/29 | Hamilton, Mark | Ruckus/CommScope |
| TGbh | 3/29 | Henry, Jerome | Cisco Systems, Inc. |
| TGbh | 3/29 | Ho, Duncan | Qualcomm Incorporated |
| TGbh | 3/29 | Huang, Po-Kai | Intel Corporation |
| TGbh | 3/29 | Kneckt, Jarkko | Apple, Inc. |
| TGbh | 3/29 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbh | 3/29 | Lumbatis, Kurt | CommScope, Inc. |
| TGbh | 3/29 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbh | 3/29 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbh | 3/29 | NANDAGOPALAN, SAI SHANKAR | Infineon Technologies |
| TGbh | 3/29 | Orr, Stephen | Cisco Systems, Inc. |
| TGbh | 3/29 | Pare, Thomas | MediaTek Inc. |
| TGbh | 3/29 | RISON, Mark | Samsung Cambridge Solution Centre |
| TGbh | 3/29 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbh | 3/29 | Segev, Jonathan | Intel corporation |
| TGbh | 3/29 | Shafin, Rubayet | Samsung Research America |
| TGbh | 3/29 | Smith, Graham | SRT Wireless |
| TGbh | 3/29 | Yee, Peter | NSA-CSD |