IEEE P802.11
Wireless LANs

|  |
| --- |
| Wireless Next Generation (WNG) Standing CommitteeMeeting Minutes for November 2016 MeetingSan Antonio, TX, USA |
| Date: 11-08-2016 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Lei Wang | Huawei Technologies Co.,Ltd. | 10180 Telesis Ct #220, San Diego, CA 92121 | +1-858-205-7286 | Leiwang95@huawei.com |
| Jim Lansford | Qualcomm | 7775 N Topeka Ave, Cascade, CO 80809 | +1-719-286-8660 | jim.lansford@ieee.org |

Abstract

Meeing Minutes for the WNG SC meeting held in San Antonio, TX, USA, in November, 2016.

**Tuesday, November 8, 2016, 8:00 AM to 10:00 AM CST**

Chair: Jim Lansford (Qualcomm)

Vice Chair: Lei Wang (Huawei)

**Meeting Agenda:**

The meeting agenda is shown below, and also published in the agenda document:

<https://mentor.ieee.org/802.11/dcn/16/11-16-1322-01-0wng-agenda-for-wng-2016-11.ppt>

* Call Meeting to Order
* Agenda approval
* Attendance reminder
* Documentation reminder
* Approval of Previous meeting minutes
* No meeting in September/Warsaw
* Announcements
* Presentations
* Plans for January 2017
* Adjournment

**Meeting Minutes:**

* Meeting called to order at 08:00AM CST on Tuesday, November 8, 2016 by Chair, Jim Lansford.
* Agenda approval:

<https://mentor.ieee.org/802.11/dcn/16/11-16-1322-01-0wng-agenda-for-wng-2016-11.ppt>

* The agenda was approved by unanimous consent
* The chair also noted the affiliation FAQ, anti-trust FAQ, ethics code, IEEE 802.11 policies and procedures, and IEEE 802 policies and procedures
* The chair covered the voting rules for WNG SC, being a standing committee
* Approximately 125 people were in attendance.
* Approval of previous meeting minutes
* Chair pointed it out that the previous meeting was actually July San Diego meeting, as we did not have a meeting in September Warsaw.
* The minutes of July San Diego meeting:

<https://mentor.ieee.org/802.11/dcn/16/11-16-0985-00-0wng-wng-meeting-minutes-of-2016-07-san-diego.docx>

* + The minutes was approved by unanimous consent.
* Presentations:
1. “Privacy Issues in 802.11 Networks”, Mathieu Cunche (Univ. Lyon, INSA Lyon, Inria, CITI), Juan Carlos Zuniga (SIGFOX)

<https://mentor.ieee.org/802.11/dcn/16/11-16-1492-00-0wng-privacy-issues-in-802-11-networks.pptx>

* + Q: For privacy, technology approach vs. regulation/legal approach, what’s the trade-off?
	+ A: It should be dealth at both approaches.
	+ Q: talking about MAC layer; but you can track PHY layer easily. Do you think we can solve the privacy issue just from MAC only, or should we start from PHY too? Or look into all the other ways of tracking, not just look at MAC layer?
	+ A: PHY tracking is way more complilcated, more expensive to build a PHY tracker. In French, tracking of MAC address is forbidded.
	+ Q: is it feasible to solve this in dot11?
	+ A: don’t know; but we can make tracking more difficult.
	+ Q: not sure if you have overstated the sev severity of the attack issue. Have customers showing didfferent resultes. Giving standard deployment, what’s the probabililty of the attacking? Some companies use some tracking for services legally. Should not undermine those people’s business mode.
	+ A: deploy our own tracking system, it is pretty accurate. In normal deployment, should be close, not much different.
	+ Q: Smart phone have more security issues than Wi-Fi, why making Wi-Fi difficult? Legal approach probably should be the way.
	+ A: don’t think this make Wi-Fi difficult.
	+ Comment: Privacy issue should be investigate in dot11. MAC address randominzation solution may not be enough, also increase the overhead.
	+ Comment: About MAC address randomization, one important point is about IPv6. Should have reasonable expectations about privacy issues. Not to judge those privacy issues out of context / scope.
	+ Q: what we can do in dot11 is very limited, do you think it is worth doing? Publish a recommended practice?
	+ A: we should think about some solutions for privacy preserving. A similar presentation will be given in next week’s IETF in Seoul, we are trying to do each of the piece in the layers / groups.
	+ Q: do you ask for standard spec or recommendated practice or both?
	+ JC: it is up for discussion.
	+ Strawpoll: on slide 22

*Do you think 802.11 specifications should include privacy recommendations about the usage of its protocols and parameters?*

* + - Strawpoll Result: yes 30/ no 12/ abstain 57
1. “LiFi – light communication for 802.11”, Nikola Serafimovsky, (PureLiFi)

<https://mentor.ieee.org/802.11/dcn/16/11-16-1499-00-0wng-lifi-light-communication-for-802-11.pptx>

* + Q: What happening in Dot15? Why abondan dot15 work?
	+ A: MAC address is different, ecosystem is different, co-contributors of this contribution have lots dot15 people; 15.4 is not built for network deployment; would like to leverage dot11 networks.
	+ Q: slide 11, CSMA/CA does not work for LiFi; but dot11 uses CSMA/CA, this means you are going to develop a new MAC. Then the amount of changes is not small.
	+ A: you can use it CSMA/CA, but not probably not efficient; but this will need further discussions. CSMA/CA is just a small part of  dot11, much more frame structure, security, etc.
	+ Comment: don’t see it as complementary, more like competetors.
	+ Response: same way as today 2G/3G and WiFi, existing in the same area.
	+ Q: Uplink LiFi, what’s the expected throughtput of IR?
	+ A: depends on how you design the system, how much power to use.
	+ Q: is this indoor night time only?
	+ A: you put your device in pocket, LiFi won’t work; it is light-only, not night-time only.
	+ Q: change aggregation, consider OFDM as PHY for LiFi, how about concurrent tansmissions with RF?
	+ A: there are papers showing you can do it.
	+ Q: early showed the throughput, 500Mbps, by Tri-band devices, what’s compeling aspect
	+ A: current protype already show the throughtput. The other main point is spectrum availability, Also leverage lighting industry. It is not replacement, it is complementary.
	+ Q: when starting the group, will you bring your solution and tell the group to use it.
	+ A: No,
	+ Q: existing LED, how to connect to the existing LED to the AP?
	+ A: LED could have built-in chip, could use external device for existing LED, you can use power line, but it is a design decision.
	+ Q: cost?
	+ A: depends on how market choose solutions, not the standard.
	+ Q: LiFi directly related LED, have problem with mobile scenario, with mobile devices, moving from place to place, street lamp, have distance. How does it work?
	+ A: depends on use cases.
	+ Straw poll set #1: SG:  slide 34,
		- * Discussion: remove the 3rd question on the slide 34
			* Comment: TIG is more appropriate
			* Q1 : *The proposal is promising, is relevant to 802.11, and may have good market potential. Would you support the formation of a Study Group for LiFi to evaluate and to develop a PAR proposal?*
			* Q1 SP Result: yes 20 / no 44/ ab 33
			* Q2:  skipped
	+ Straw poll set #2: TIG, slide 35
		- * Discussion: remove the 3Rd question on the slide 35
			* Q1: *The proposal may be relevant to 802.11, but the feasibility is not clear yet. Would you support the formation of a Topic Interest Group (TIG) for LiFi to clarify further technical aspects of the proposal?*
			* Q1 SP Result: yes 76/ no 4/ ab 24
			* Q2: *Would you attend and contribute to a TIG for LiFi?*
			* Q2 SP result: yes 29/ no 11/ ab 23
	+ Q: Is LiFi is a trade-mark, any risk to use?
	+ A: no
	+ Q: Q: how to coordinate with dot15 project?
	+ A: no requirement for coordination, but we need to avoid duplicate work.
* Plans for 2017-January meeting:
	+ Call for contributions: the WNG chair will issue a call for contributions before the 2017-January meeting.
* Adjournment
	+ The meeting adjourned, without objection, at 9:58am CST.