IEEE P802.11
Wireless LANs

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| AANI November 2016 Meeting Minutes  |
| Date: 2016-12-11 |
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Abstract

This document contains the minutes of the IEEE 802.11 AANI SC meetings held on 8 November 10:30am CT and 7:30pm CT and on 10 November 2016 at 10:30am CT. Note the minutes for the 8 November 7:30pm CT sessions are provided in a separate document: Meeting minutes of the November 2016 Tuesday Evening meeting of the Advanced Access Network Interface (AANI) Standing Committee (SC)(11-16/11547r0).

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# Tuesday, November 8, 10:30am CT

**Administration:**

**Chair: Joseph Levy, InterDigital**

**Acting Secretary: George Calcev, Huawei**

**The following notes were provided by George Calcev:**

1. Present and vote for the agenda IEEE802.11-16/1318r1
2. Call for secretary – George Calcev volunteered
3. Administrative:
	1. Participants, patents and duty forms, call for potential essential patents, other guidelines for the IEEE WG Meetings
	2. Approval of minutes September f2f, 27 of September Teleconference, October 27 teleconference
	3. Call for the vice-chair
4. Status/Background
	1. AANI SC Background
		1. Sent liaison to 3GPP (9/17)
		2. 802.1CF OmniRAN had a brainstorming on 9/22: no clear directions, another meeting on Wednesday on 11/9
	2. 3GPP RAN TG and 3GPP SA reactions to 802.11 liaison
		1. Both RAN and SA supportive to work together with IEEE and forward the comments to 3GPP PCG
		2. 802 EC sent a LS to 3GPP PCG asking for collaboration towards support of IMT-2020
		3. 3GPP PCG Response: LS reply thanks and states that the collaboration is productive and efficient, the methods of collaboration are adequate and no change in how 3GPP works with 802 is called for.
		4. 3GPP will produce IMT-2020 submission similar to IMT-Advanced submission
		5. They want continue discussion to allow integration/aggregation
		6. Paul Nikolich (chair 802) wants to continue the improvement of the communication with 3GPP
			* Establish as liaison to get updates from 3GPP and to 3GPP from IEEE802 to improve communication
			* The Chair call for: additional LSs with technical content to RAN and SA pointing areas for improvements in WLAN
			* Discussion with the following comments:
				+ What would be in this communication?
				+ There is a need for collaboration but it should not be formalized. Let technology conduct the discussion. We need several people as liaisons. The liaison person will present the LS and clarify the technical details if necessary
			* Lei Wang (Huawei) proved an oral report on the IEEE 5G Summit

Participants Intel, Ericsson, Nokia, ZTE, Google, Toyota, Huawei, Sprint, Verizon, professors and consulting firms.

The discussions had nothing IEEE 5G but rather about 5G ITU submissions and NGN, so more focused on the next generation wireless communication

Hot topics: spectrum allocation, licensed and unlicensed aggregation

Spectrum sharing and aggregation discussion from Google

mmWave another hot topic from IBM research

Nokia: work in 60-70 high band

Ericsson: NB IOT

* 1. OmniRAN Option A: IEEE 5G
		1. Discussions on what 11 should do o IC activity? And focus of IEEE 5G activity.
		2. Industry Connections Activity Initiation Document (ICAID) presentation
		3. Next step: pick an industry and kick of an IC to discuss and define 802 “5G” the market requirement
		4. Max (OmniRAN): we should not use the word 5G, which is a very dedicated to cellular
		5. Adrian Stevens (Chair 802.11) “IEEE 5G” should look into the ways to satisfy the IMT 2020 requirements
		6. Chair: Build the interface core network and air interface jointly with 3GPP, investigate the cable industry, cloud industry without use of 3GPP investigate their needs
		7. There is necessary to drop the “5G” and replace it with something more meaningful for IEEE802, maybe use “next generation”, or “advanced packet networks”, etc.…
		8. Max (Nokia): IEEE 5G, all the IMT2020 requirements which are not under the control of cellular operator
		9. How is the communication with 5G cellular?
		10. I like the idea of industry connection to help us.
		11. Straw Poll: “802.11 should support investigating the concept of starting an IC activity”

Y/N/A 15/1/9

1. Discuss 3GPP next steps
2. Review and Discussion of Option A: IEEE 5G Specifications

# Tuesday, November 8th, 7:30pm CT

Minutes for this session can be found in: “Meeting minutes of the November 2016 Tuesday Evening meeting of the Advanced Access Network Interface (AANI) Standing Committee (SC)” (11-16/11547r0).

# Thursday, November 10th, 10:30pm CT

**Administration:**

**Chair: Joseph Levy, InterDigital**

**Acting Secretary: George Calcev Huawei**

**The following notes were provided by George Calcev:**

Chair presents the agenda

Agenda is approved in unanimity

Chair asks for a secretary

George Calcev (Huawei) volunteer for secretary

Chair asks for nomination for VC position

No nominations were received.

Discussion on the 3GPP LS regarding Throughput Estimation

Chair presents the LS draft and the email reflector discussion on subject

The following statements were made in the discussion:

* The Throughput Estimation can be in principle used at AP and STA
* A received e-mail from Mark Rison (Samsung): expanding the scope of our reply
* There was an explanation as to how this email expanded the scope.
* Estimated Throughput defined in REVmc, computed by a non-AP STA is based on RSSI on DL, no way to provide the RSSI to the AP-STA so difficult to estimate RSSI at AP-STA
* Why we comment on the specs? An estimate is an estimate, we should have a holistic answer instead
* We need to give them an answer
* Argue that is 100% precise
* We could go with this but is not simple answer, it is very complicated issue.
* We should send a simplified response while we investigate this issue more
* We could target a response in January
* We maybe should provide the Max Throughput
* I do not think that Mac Throughput information will help them. We need to decide what the points we need to clarify by the next meeting are.
* We need clarify what changes in specification need to be done,

Chair: It is outside of the scope of this group to have technical discussions on this matter

* I believe that the chair should discuss with Adrian Stephens, and clarify if the scope of this group does not cover the technical work. I agree with Laurent that we need to tell them we are working on it. The 3GPP meeting is in February.

Chair: I do not know if we need to have a polite thank you LS.

* We do not need a formal letter

Chair: I will discuss this in the CAC meeting. I am looking for somebody to mediate the discussions.

Laurent Cariou (Intel): I volunteer for it.

Option A Discussions:

Expert presentation on IC done in OmniRAN. Where we had discussion on how make that work

IC will stay under 802.1

ICAID document to start IC activity, will take couple more meetings to develop

The goal activity: to find industry means to generate a gap analysis document.

A member questioned: How we identify the right participants?

Chair: We rely on 802.3 work and we could do some additional work for instance for Smart City Networks in this group

Chair informs Adrian Stephens (.11 WG chair) about the discussion on 3GPP LS. We will send a short LS that informs 3GPP that we work on it.

Adrian Stephens (Intel): Yes, is proper thing to do, I will do it, please remind me to do so. There is no need for formal approval for such letter.

A member commented: We need a separate reflector for that, we cannot access .1 reflector.

Chair: I will ask Max (Nokia) for such reflector.

Chair: Discuss about the email, LS on IMT2020

Things going on at EC level

At our level: based on LS from 3GPP, indication that RAN and SA interested in discussing integration with WLAN in the future

We should draft two LS to RAN and SA tell them we want to work and ask about the timeline

We should provide specific area for integration

SP: The AANI SC should send a liaison RAN to discuss 802.11 ‘s views on radio-level integration between 3GPP/NR and 802.11 system

 Discussion:

A member asked: Do you have a solution on this integration. I do not know what is our solution. What is our plan?

Chair: RAN has no WI or SI for such work. The purpose of SP is to ask this group if we should discuss this.

A member stated: We should request for information or request for action. Would be more effective to request for some action.

Chair modifies the SP:

SP: The AANI SC should send a liaison to ask RAN to provide 802.11 some insight as how radio-level integration between 3GPP/NR and 802.11 system might be specified.

A member stated: I do not know if these questions are relevant. We should ask them what you need up to Release 14.

Chair goes back to the response from SA. We should take proactive approach to stimulate such discussion.

A member stated: We should think how to support 3GPP in the 5G effort, based on new NR. They may have another approach. They consider on submitting some non-NR specs.

SP 1: The AANI SC should send a liaison statement to ask RAN to provide 802.11 some insight on their status and approach of radio-level integration between 3GPP/NR and 802.11

A member asked: Is NR sufficient to refer to 5G?

SP1 Results: 8/0/19

SP 2: The AANI SC should send a liaison statement to ask SA to provide 802.11 some insight on their status and approach to improve WLAN integration in the 3GPP NextGen System and 802.11 in future?

SP2 Results: 7/0/14

Future Session Plan:

Thursday 1 December 10:00 EDT.

Thursday 15 December 10:00am EDT

Thursday 5 January 10:00am EDT

15-20 January F2F meeting in Atlanta

The group adjourns for the week