IEEE P802.11
Wireless LANs

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| AANI November 2018 Meeting Minutes  |
| Date: 2018-11-12 |
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**Abstract**

This document contains the [draft] minutes of the IEEE 802.11 AANI SC meeting held on 12th November 2018 in Bangkok, Thailand

**Chair: Joseph Levy (InterDigital)**

**Vice Chair: open**

**Secretary: open**

Monday 11th November 16:00

The Chair called the meeting to order at 16:00 ICT. Standing Committee anyone in the room can vote.

Vice Chair and Secretary open.

**Agenda**

Agenda in doc: [11-18/1721r2](https://mentor.ieee.org/802.11/dcn/18/11-18-1721-02-AANI-aani-sc-agenda-november-2018.pptx)

1. **Background/Status**
	1. Liaison Statement history
	2. Status: WLAN integration in 3GPP NextGen System
	3. Status: 802.11ax performance relative to the IMT-2020 EMBB requirements
2. **Nendica – Update – Roger Marks**
3. **Discussion / Contributions**
	1. 802.11 technical performance relative to IMT-2020 requirements

Discussion draft Liaison Statement ([11-18/1340r4](https://mentor.ieee.org/802.11/dcn/18/11-18-1340-04-AANI-proposed-ls-to-3gpp-wfa-wba-wififorward-on-the-studies-done-regarding-benchmarking-of-802-11ax-capabilities.docx))

No objections to approve Agenda Doc: [11-18/1721r2](https://mentor.ieee.org/802.11/dcn/18/11-18-1721-02-AANI-aani-sc-agenda-november-2018.pptx). Agenda approved.

**Guidelines**

Chair went through the Guidelines, Resources, Participation slides.

**Minutes**

Approve Doc [11-18/1633r1](https://mentor.ieee.org/802.11/dcn/18/11-18-1633-01-AANI-aani-september-2018-meeting-minutes.docx) Sept 2018 AANI meeting minutes

No matters arising from the minutes

No objection to approve the meeting minutes. Minutes approved

October 2018 Telecom Minutes [11-18/1811r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1811-00-AANI-2018-10-29-aani-teleconference-minutes.docx)

No matters arising from the minutes

No objection to approve the telecon minutes. Minutes approved

**Discussion**

Chair reviewed slide 10, 11 and 12 [11-18/1721r2](https://mentor.ieee.org/802.11/dcn/18/11-18-1721-02-AANI-aani-sc-agenda-november-2018.pptx) on AANI Background.

* Nothing to report or contact SA on.
* Work ongoing for 11ax performance relative to IMT-202 EMBB requirements.

**NENDICA** Status Report update.

Roger Marks (NENDICA Chair) presented Overview [1-18/0065r0](https://mentor.ieee.org/802.1/dcn/18/1-18-0065-00-ICne-nendica-meeting-overview-2018-11.pptx)

“Flexible Factory IoT” is still being worked on.

**Discussion on draft LS:**

* [11-18/1340r4](https://mentor.ieee.org/802.11/dcn/18/11-18-1340-04-AANI-proposed-ls-to-3gpp-wfa-wba-wififorward-on-the-studies-done-regarding-benchmarking-of-802-11ax-capabilities.docx) – “Proposed LS to 3GPP/WFA/WBA/WiFi Forward on the studies done regarding benchmarking of 802.11ax capabilities”

Presented by Sindhu Verna (Broadcom)

Additions to Indoor Hotspot from previous presented.

“Summary” in [11-18/1573r3](https://mentor.ieee.org/802.11/dcn/18/11-18-1573-04-AANI-summary-of-802-11ax-self-evaluation-for-imt-2020-embb-indoor-hotspot-and-dense-urban-test-environments.docx), also presented, with summary for eMBB Indoor Hotspot.

The Chair called for comments and discussion:

Q – Bullet 4 implies not evaluated?

A – Application dependent and not inclusive in 11ax. Can be studied to check if there are applications for mobility handover delay.

Q – Suggest get rid of “are under evaluation”. What are the “expected Mobility Interruption time” Suggest new text to say simply “expected to be met by system using 11ax”.

Comment – 11ax is still a Draft. Need to reference correctly in Introduction. Add Draft after 802.11.

Comment – Questioned the enhancements sentences in Bullet 1 in the Discussion. Point is that these results are conservative. Example point is that 32 antennas may be used for simulation even though not actually supported in Draft, i.e. does not need to be supported now. This is what this sentence is referring to.

Chair asked if any text changes should be made?

Agreed - Page 2, at bottom, move “as allowed etc.” to be after “non-standardized manner”.

Back to [11-18/1340r4](https://mentor.ieee.org/802.11/dcn/18/11-18-1340-04-AANI-proposed-ls-to-3gpp-wfa-wba-wififorward-on-the-studies-done-regarding-benchmarking-of-802-11ax-capabilities.docx)

Q – Object to “kindly inform”. Also “Invites you to consider these results” - What is the message? - What are we asking them to do? How different for WFA and 3GPP?

* WFA is not primary recipient. 3GPP is doing the work and relevance of that work is affected by pointing out that 11ax does meet the requirements. Motivation for 3GPP to continue to do the work and note that 11ax can meet the requirements
* Ok so let’s make that clearer
* May be some scenarios where these results may be used.
* 3GPP have requested what parameters can be used, see it as SA and RAN.
* SA have 2 concepts “trusted” (WLAN) and “Untrusted”, 3GPP uses “WLAN” specifically.
* Discussion and alternative views on “trusted” and “untrusted”, not sure where this is going or the relevance? Documents specifically refer to WLAN.
* Do not want round robin of differing views, we should clearly state this is the result of our work, use it.
* Does need the facts to be presented and supported otherwise it will just sit in SA.
* We are interested in interworking within WLAN.

Q - When we supply these results, what do we expect?

A - Make clear that 11ax can provide a certain performance. Hence we must share them so they can make a decision on whether to use/consider 11ax

* Interworking will be for 11ax and/or 11ac.
* This work has been considered for 11ax. 3GPP needs to consider if 11ax meets the requirements or not. This work helps in that.
* We have no idea what 3GPP will do with this information, let alone the Providers. However, we do see the benefit in sharing these results with outside organizations including 3GPP. So question is whether we want to share. We should agree the work has been done well, and should be shared.
* Question is what we would like them to do with it. Then write the text accordingly. i.e. 11ax does meet the requirement and therefore 3GPP should incorporate it.
* We first need to share the information, then they may provide feedback whether we ask or not. Crucial exercise is to share the results that show that 11ax meets the requirements, i.e. it is then public knowledge.
* Messages?
* We did not know if 11ax would meet requirements so could not expect 3GPP to know, but now we do know.
* Do we need a Statement that 11ax can provide a RAT interface for IMT 2020 that meets the requirements? In past there has been objections to making that statement. Would anyone object to such a stronger statement?
* This is a public liaison, so if results get into Providers, for example, some pressure or influence could come to bear. Could copy who we like, on our public server.
* Being generic we can avoid controversy. This is what we meet, this is good for now. Do not nudge ourselves, this is good step.

Straw Poll:

Should “kindly” be kept in 11-18/1340?

Yes: 17 No: 4

**Made editorial and tone changes to document in real time:**

Added reference [1] Draft 11ax. Added [1] in appropriate places after 802.11ax.

Removed “WiFiForward” from cc list

Spell out WFA? WBA? No

802.11 Chair will have editorial license on the Liaison letter.

Motion “Approval of Draft LS”

Approve the liaison statement in 11-18/1340r5 from IEEE 802.11 to 3GPPand 3GPP SA TSG and copied to the 802 EC, 802.1, WFA, and WBA, providing the 802.11 study results benchmarking 802.11ax capabilities to meet some performance requirements of IMT-2020, granting the WG Chair editorial license.”

Moved: Andrew Myles

Seconded: Michael Fischer

No Comments or discussion:

Results: 19/0/0 PASSES.

Chair will call for Motion, asked for volunteer to present and one of the authors will present.

**Call for contributions as per Slide 16 of** [**11-18/1721r2**](https://mentor.ieee.org/802.11/dcn/18/11-18-1721-02-AANI-aani-sc-agenda-november-2018.pptx)**:**

1. Technical and discussion contributions on 802.11 technical performance relative to IMT-2020 requirements.
	1. Benchmarking of 802.11 performance.
	2. Analysis and simulation results of 802.11 performance relative to the IMT-2020 requirements.
	3. Discussion and planning contributions related to progressing this work.
2. Technical and discussion contributions on interworking/integration of 802.11 with the 3GPP Next Generation System:
	1. Reviews or tutorials on current 3GPP SA solutions related to 3GPP 2G/3G/4G core network and 802.11
	2. Reviews, tutorials, or commentary on the completed 3GPP SA studies for 5G
	3. Reviews, Tutorials, or commentary on 3GPP SA WGs ongoing activities related to 5G for 3GPP
	4. Technical and discussion contributions on interworking/integration with 3GPP RAN NR.
	*Lower priority as 3GPP RAN TSG is not currently working on interworking specifications.*
3. In support of 802.1 NENDICA
	1. proposals of industries to address
	2. contributions defining areas of 802.11 interest or discussion

**Future Planning as per slide 17 of** [**11-18/1721r2**](https://mentor.ieee.org/802.11/dcn/18/11-18-1721-02-AANI-aani-sc-agenda-november-2018.pptx)**:**

Teleconference:

 As required with 10 days’ notification

13-18 January 2019 F2F, Hilton St. Louis at the Ballpark, St. Louis, MO, USA:

 The AANI SC is contribution driven, contributions are requested:

* 1. Technical and discussion contributions on 802.11 technical performance relative to IMT-2020 requirements.
	2. Technical and discussion contributions on interworking/integration of 802.11 with the 3GPP Next Generation System:
	3. In support of 802.1 Nendica

*Note: IMT-2020 proposals are due June 2019*

Meeting time requested: 1 sessions – Monday PM2

**Upcoming January meeting has open agenda,**

please let Chair know of any contributions

**No other business**

End of Agenda

Without objection, the Chair announced recess at 17:40 ICT. Thursday meeting will be cancelled if the Motion passes at the 802.11 mid-week plenary.

The Motion passed at the 802.11 mid-week plenary.

The Chair adjourned the meeting via e-mail announcement.