IEEE P802.11  
Wireless LANs

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| AANI Minutes June 8, 2021 | | | | |
| Date: 2021- 06 - 08 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Graham SMITH | SR Technologies | Sunrise, Florida |  | gsmith@srtrl.com |
| Joseph LEVY | InterDigital Communication, Inc. | 111 W 33rd Street New York, NY 10120 | +1.631.622.4139 | [joseph.levy@interdigital.com](mailto:joseph.levy@interdigital.com) |

Abstract

This document contains the minutes of the IEEE 802.11 AANI SC teleconference held on June 8, 2021

Note: Highlighted text are action items.

Q- proceeds a question asked at the meeting

A- proceeds an answer given by the presenter or the Chair

C- proceeds a comment

Chair – proceeds a comment or statement by the Chair

# Tuesday June 8, 09:00 hrs to 10:00 h ET:

**Chair: Joseph Levy, Interdigital**

**Acting Secretary: Graham Smith, SR Technology**

1. **The teleconference was called to order by Chair 9.02 h ET,**

Graham Smith (SRT) volunteered to be acting secretary.

Agenda slide deck 11-21/0949r1

**2. The Chair reminded everyone to sign attendance and reminded attendees of the AANI Operating rules.**

See attendance list at the bottom of this document.

**3. Approval of the Agenda:**

* 1. Call for Secretary
  2. Administrative: Reminders, Rules, Guidelines, Resources, Participation [5 min]
  3. Status [5 min.]
  4. Contributions/Discussion:
     1. [11-21/0950r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0950-00-AANI-5gc-access-over-wlan.docx) “Overview of 5G core network access over WLAN”, Robert Stacey (Intel)
     2. 11-21-0953r0 “Proposed QoS response to WBA”, Thomas Derham (Broadcom) – for reflector discussion”
     3. ???
     4. [11-21/0865r1](https://mentor.ieee.org/802.11/dcn/21/11-21-0865-01-AANI-draft-reply-ls-from-802-11-to-wba-regarding-the-wba-5g-wi-fi-ran-convergence-paper.docx) “Draft Reply LS from 802.11 to WBA regarding the WBA 5G & Wi-Fi RAN Convergence Paper”, Joseph Levy (InterDigital)
  5. Future Session Planning

The Chair reviewed the agenda. The proposed agenda was adopted without objection.

**4. Guidelines, Resources, Policies and Participation were presented by the chair.**

Slides 5 – 9 of 21/0949

Copyright policy slides were presented, slides 7 and 8

1. **Review of AANI Status/Activity**

Chair addressed slides 10, 11, 12 and 13 of 21/0949.

Chair - Any questions on current status? - None

1. **Contributions**

“**Overview of 5G core network access over WLAN”**, Robert Stacey (Intel) [11-21/0950r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0950-00-AANI-5gc-access-over-wlan.docx)

Background - Author took an action during the May session to see if clause 4 (registering and authenticating) of the technical report could be rewritten as a two-step process: join WLAN, join 5GC. This is the result. While doing this it seemed to make sense to provide an overview of the WLAN connection options and discuss untrusted and trusted access in relation to this.

This document provides and overview of the registration and authentication process for gaining access to a 5G core network over a WLAN. It is a synthesis of 802.11 and 3GPP defined procedures. The document is provided as a tutorial, although the content may be incorporated in the AANI draft technical report on WLAN/3GPP interworking.

Author presented the document in detail.

Q – For “trusted” access does 3GPP rely on SIM card authentication?

A – Yes I believe that’s so.

C – Is this the main difference between the trusted and untrusted?

C – In .11 we have ways to cache, but that mechanism may not be compatible with trusted access.

A - They are the same at the IP layer. SIM credential authentication is used for both untrusted and trusted accesses, since both cases need the IPsec tunnels. However, in the trusted case, IPsec tunnel encryption can be null, since layer 2 (link layer) has full link encryption. For untrusted cases, the AP and N3IWF don't have communications to set up the link layer encryption.

C – Only real difference in trusted and untrusted is an increase in exchanges. Hence most just use untrusted case.

Q – Any reference material is this based on?

A – Based on my knowledge and also 3GPP 23.502 and 23.501. TS 23.501 for overall architecture and TS 23.502 for call flows.

Q – In trusted case access authentication part is integrated with 5G core. Need to support 802.1X ?

A – Yes, variation of 802.1X used and common across all the radios. Mapping what is done on cellular radio over to EAP exchange. Only place to add additional messaging.

C - IPsec authentication uses 802.1x as part of the procedures. However, user level IMSI authentication is still done by the AMF and the AUSF.

Q – In figures UE/TE in case of Fig 3 maybe should be TE only?

A – Yes, I think I agree

Q – Figure 3 uses AP?

A – Everything over IP, message exchange is with the AP layer 2, EAP is layer 2 addressed to AP, AP relays information to TNGF. First connection over layer 2, then an IP connection.

Q – Is this intended to be used as Clause 4 in the other document?

A – Hopefully. Roll into the technical report.

C – Is trusted entity the AP?

A – Yes, in trusted case AP is operated by the operator. The WLAN is part of the 5G network. AP is part of the core network.

C - If the TE doesn't have 5G stack (e.g., mobility layer 3 protocol (NAS)), then there is another trusted access procedure and gateway (TWIF=Trusted Wi-Fi Interworking Function). TWIF is essentially a TNGF + a NAS translation box which translates the TE layer 2 message to the 3GPP NAS message. So in this case, 3GPP network looks at the TWIF is both TNGF and UE.

Way forward summary:

Hyun Seo OH has agreed to integrate this new information into the technical report 11-20/0013.

Chair - encouraged interested parties to look at the two additional contributions and to discuss them on the AANI SC email reflector:

* [11-21/0953r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0953-00-AANI-proposed-qos-response-to-wba.docx) “Proposed QoS response to WBA”, Thomas Derham (Broadcom)
* [11-21/0865r1](https://mentor.ieee.org/802.11/dcn/21/11-21-0865-01-AANI-draft-reply-ls-from-802-11-to-wba-regarding-the-wba-5g-wi-fi-ran-convergence-paper.docx) “Draft Reply LS from 802.11 to WBA regarding the WBA 5G & Wi-Fi RAN Convergence Paper”, Joseph Levy (InterDigital)

The next AANI SC teleconference is: Tuesday June 22 @ 9:00-10:00 h ET (13:00-14:00 h UTC)

**Out of time**

**Meeting adjoined at 10:03 h ET**

**Attendance:**

