IEEE P802.11
Wireless LANs

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| Reply to Liaison from 3GPP RAN2 on Estimated Throughput 11-16-1384 |
| Date: 2016-11-08 |
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* Abstract

This document contains draft text for a proposed liaison response by IEEE 802.11 to the 3GPP RAN2 liaison R2-167306 (11-16/1384r0), received by 802.11 on 05 November 2016. This liaison response provides 802.11 feedback on whether there are any accuracy specification requirements for “Estimated Throughput” and variation of the accuracy across different implementations for “Estimated Throughput”.

R1 – This version was created by merging content from 11-16/1510 and 11-16/1517 and further modified by comments during the AANI SC Tuesday 8 November 2012 EVE session.

To: 3GPP RAN WG2

 3GPPliaison@etsi.org,

 susanna.kooistra@3gpp.org – Liaison Coordinator

 richard.c.burbidge@intel.com – RAN WG2 Chair

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 Contact Person: **Ozcan Ozturk -** oozturk@qti.qualcomm.com

CC:

Subject: IEEE 802.11 Working Group response Liaison to 3GPP RAN2 on Estimated WLAN Throughput,

**Discussion:**

The IEEE 802.11 Working Group (WG) thanks the 3GPP RAN WG2 for their Liaison on Estimated WLAN Throughput, for REl-14, related to RAN WG2 work item LTE-WLAN\_aggr-Core and appreciates the opportunity to provide 3GPP RAN WG2 feedback on the request [1].

3GPP RAN WG2 asked IEEE 802.11 WG “to provide feedback on whether there are any accuracy requirements for “Estimated Throughput”, its variations across different implementations, and feasibility of calculation by either STA or AP. RAN2 would also like to know if it would be feasible for IEEE to define such requirements, if not already defined, as well as suggest other metrics which can also be useful for LWA operation.”

IEEE 802.11 WG informs 3GPP RAN WG2 that:

The “Estimated Throughput” metric was introduced in IEEE 802.11 REVmc D6.0 [2] with the intent to allow external entities to make better quality traffic steering decisions and network selection decisions by being able to predict the throughput that might be obtained through a link with an 802.11 STA [3]. Therefore, in principle, it can be applied to both the pre-activation and post-activation phases of LWA. The current draft of P802.11mc D8.0 [4] specification does not provide any specification for “Estimated Throughput” accuracy or the variation across different implementations.

IEEE 802.11 would welcome any clarifications on the requirements for WLAN metrics in the specific usage of LWA/eLWA. In particular, while the Estimated Throughput metric can be applied to both pre-activation and post-activation phases of LWA, it is also noted that additional metrics may be more relevant in post-activation phase where historical link quality statistics may be available.

**Actions:**

To 3GPP RAN WG2:

IEEE 802.11 asks for additional clarification with regard to 3GPP RAN WG2 requirements for performance metrics for LWA post-activation phase.

**Date of Next IEEE 802.11 WG Meetings:**

802 Interim - January 15-20 2017 in Atlanta, GA, USA

802 Plenary - March 12-17 2017 in Vancouver, BC, Canada

Sincerely,

Adrian Stephens
IEEE 802.11 Working Group Chair

**References:**

1. [R2-167306](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_95bis/Docs/R2-167306.zip), 3GPP RAN WG2 LS on Estimated WLAN Throughput
2. IEEE P802.11REVmc tm /D6.0, Draft Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY)
3. [11-14/0936r3](https://mentor.ieee.org/802.11/dcn/14/11-14-0936-03-000m-liaison-response-followup-to-3gpp-tsg-ran-wg2.docx), Liaison Response followup to 3GPP TSG RAN WG2
4. IEEE P802.11REVmc tm /D8, Draft Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY)