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 resonse 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”.

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 workitem LTE-WLAN\_aggr-Core and appreciates the opportunity to provide 3GPP RAN WG2 feedback on the request.

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:

1. The 802.11-2012 specification and its published amendments do not have accuracy requirements for “Estimated Throughput”.
2. The 802.11-2012 specification and its published amendments provides no specification or guidance that allow for the assessment of the variation across different implementations, nor on the feasibility of calculation by either STA or AP.

The published IEEE Standard 802.11-2012 [1] specification does provide the resolution of the DataThroughput:

DataThroughput is an Integer in the range of 0 – 65 535 and the data throughput interger value has units of megabits per second, rounded to the nearest megabit. The reported value may be timeaveraged over recent history by a vendor-specific smoothing function.

The current draft of P802.11mc D7.0 [2] specification does not provide any additional specificaition for DataThroughput.

The IEEE 802.11 WG would like to better understand the 3GPP RAN WG2 need for for “Estimated Throughput” accuracy, implementation variability, and the feasibliy of calculation by either STA or AP. As this may be helpful in the future if IEEE 802.11 considers specifying any of these capabilities.

While it may be possible for IEEE 802.11 to generate such specification, IEEE 802.11 does not typically provide specification on accuracy or variability of implementation and currently has no plans to do so.

IEEE 802.11 WG also notes that some performance criteria and implementation variation requirements for some products based specifications are specified for implementations meeting WFA certification criteria.

**Actions:**

To 3GPP RAN WG2:

None. *.*

**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