IEEE P802.11
Wireless LANs

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| Proposed Liaison Statement to ETSI BRANin relation to *blocking energy* |
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Abstract

This document contains a proposed Liaison Statement from the IEEE 802.11 WG to ETSI BRAN that comments on blocking energy issues.

It was updated in early July 2018 to account for developments that occurred during the ETSI BRAN meeting in June 2018.

It was further updated in September 2018 as a result of further submissions to ETSI BRAN

**Liaison statement**

**TO:**

* Edgard Vangeel, ETSI BRAN Chair, evangeel@cisco.com

**CC:**

* Dorothy Stanley, IEEE 802.11 WG Chair, dorothy.stanley@hpe.com
* Andrew Myles, IEEE 802.11 Coexistence Standing Committee Chair, amyles@cisco.com

**SUBJECT:** *Blocking energy*

**DATE:** xx September 2018

Dear Edgard,

This document is an approved Liaison Statement from the IEEE 802.11 Working Group (WG) to ETSI BRAN. The positions contained within this Liaison Statement are those of the IEEE 802.11 WG and do not necessarily reflect positions of the IEEE, the IEEE Standards Association, IEEE 802 or any other IEEE organisational unit.

IEEE 802.11 WG has been made aware of discussions in BRAN#97 and BRAN#98, based on BRAN(18)097010 and BRAN(18)098008, related to the use of b*locking energy* (also known as *reservation signals*) by some implementations of LAA. The IEEE 802.11 Coexistence Standing Committee has reviewed the discussions in some detail.

IEEE 802 has previously expressed a position to 3GPP RAN1 in various Liaison Statements[[1]](#footnote-1),[[2]](#footnote-2),[[3]](#footnote-3) in 2016 and 2017 that the unnecessary use of *blocking energy* by LAA should be both discouraged & limited in length on the basis that any unnecessary transmissions will cause interference to other systems.

IEEE 802’s position is supported by a Liaison Statement[[4]](#footnote-4) from 3GPPP RAN1 to IEEE 802 as far back as May 2016 in which 3GPP RAN1 states that the use of *reservation signals* is not necessary for *good LAA performance* and not using *reservation signals* is a *viable implementation option.* In the same Liaison Statement, 3GPP RAN1 states that the LAA specification does not even define *reservation signals* or their use, highlighting the unnecessary nature of their use by some LAA implementations.

In a Liaison Statement[[5]](#footnote-5) to 3GPP RAN/RAN1 in March 2017, IEEE 802 accepted a compromise proposal in a Liaison Statement[[6]](#footnote-6) from 3GPP RAN1 in November 2016 to limit the length of any *blocking energy* by increasing the number of starting positions in LAA. Unfortunately, we understand that 3GPP RAN1 subsequently decided not to specify the additional starting positions for LAA, apparently because some vendors were concerned about the additional implementation complexity.

The current situation is that some vendors’ LAA equipment will transmit up to 0.5ms of what is essentially unnecessary noise at the start of every COT for the sole purpose of blocking access to the medium to other devices. This use of *blocking energy* by some LAA devices will cause interference to other devices attempting to use the medium, including IEEE 802.11 devices, and yet is not required for *good performance* of LAA according to 3GPP RAN1.

IEEE 802.11 WG requests that ETSI BRAN take IEEE 802’s position into account when deciding how to deal with the *blocking energy* issue. In particular, IEEE 802.11 WG requests that ETSI BRAN consider the viability of various options for strongly discouraging or even banning, the use of *blocking energy* by LAA devices (as well as other devices) and restricting its length in the event *blocking energy* is used.

The IEEE 802.11 WG looks forward to hearing the result of ETSI BRAN’s deliberations on this matter.

Sincerely,

Dorothy Stanley
Chair, IEEE 802.11 Working Group
dorothy.stanley@hpe.com

1. IEEE 802 LS to 3GPP RAN/RAN1 in March 2016: [19-16-0037-09](https://mentor.ieee.org/802.19/dcn/16/19-16-0037-09-0000-laa-comments.pdf) [↑](#footnote-ref-1)
2. IEEE 802 LS to 3GPP RAN1 in August 2016: [802\_to\_3GPP\_01AUG\_2016\_Liaison\_r01](http://grouper.ieee.org/groups/802/Communications/16_08/802_to_3GPP_01AUG_2016_Liaison_r01.pdf) [↑](#footnote-ref-2)
3. IEEE 802 LS to 3GPP RAN/RAN1 in March 2017: [ec-17-0065-00-00EC](https://mentor.ieee.org/802-ec/dcn/17/ec-17-0065-00-00EC-802-to-3gpp-ran-ran1-liaison-statement.pdf) [↑](#footnote-ref-3)
4. 3GPP RAN1 LS to IEEE 802 in May 2016: [R1-166041](http://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_85/Docs/R1-166041.zip) [↑](#footnote-ref-4)
5. IEEE 802 LS to 3GPP in March 2017: [ec-17-0065-00](https://mentor.ieee.org/802-ec/dcn/17/ec-17-0065-00) [↑](#footnote-ref-5)
6. 3GPP RAN1 LS to IEEE 802 in November 2017: [R1-1613770](http://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_87/Docs/R1-1613770.zip) [↑](#footnote-ref-6)