IEEE P802.11
Wireless LANs

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| Proposed Spec TextQuality of Service for latency sensitive traffic |
| Date: 2021-01-01 |
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Abstract

This submission proposes spec text for Quality of Service for latency sensitive traffic to be incorporated into 801.11be D0.3

Revisions:

* Rev 0: Initial version of the document.

The text is based on the following motions:

An MLD AP may offer differentiated quality of service over different links.

[Motion 112, #SP49, [19] and [257]]

802.11be shall define a mechanism that differentiates low latency traffic from regular traffic and prioritizes the transmission of low latency traffic in R1.

[Motion 135, #SP225, [25] and [282]]

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| MAC | Quality of Service for latency sensitive traffic | Chunyu Hu, Frank Hsu, Dave Cavalcanti, Duncan Ho,  | Dibakar Das, BARON Stephane, VIGER Pascal, NEZOU Patrice, Thomas Handte, Sharan Naribole, Subir Das, Akhmetov Dmitry, Liuming Lu, Akira Kishida, Mohamed Abouelseoud, Orem Kedem, Xin Zuo, Chittabrata Ghosh, Payam Torab, Leif Wilhelmsson, Sebastian Max, Liangxiao Xin, Jonghun Han, Taewon Song, Mark Rison, Guogang Huang, Yonggang Fang | Basics (R1) | Uploaded:Presented:Straw Polled: | Motion 112, #SP49Motion 135, #SP225 |

***Editing instructions formatted like this are intended to be copied into the TGbe Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbe Editor: Editing instructions preceded by “TGbe Editor” are instructions to the TGbe editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbe editor will execute the instructions rather than copy them to the TGbe Draft.***

***TGbe editor: Add new a subclause 33.3.x the following subclause and editing instructions at an appropriate location within the TGbe draft:***

**35.3.x Quality of service for latency sensitive traffic**

35.3.x.1. General

Many realtime applications have stringent latency requirements including not only very low average and worst-case delay, such as a few milliseconds, but also with small jitter and more predictable characteristics. Traffic originated from such applications is sensitive to latency. To meet the requirements of such traffic as well as to optimize the network performance, an AP MLD may choose one or more links and provide differentiated quality of services over these specified links.

~~The rules and mechanism for an AP MLD to choose one or more links and to advertise this information are TBD.~~

The mechanism to provide differentiated quality of service over these specified links is defined in 33.x (Low latency operation).

***TGbe editor: Add new a subclause 33.x Low latency within clause 33 as follows:***

33. Extreme High Throughput (EHT) MAC specification

33.x. Low latency operation

33.x.1. General

Low latency operation described in this section is for EHT STAs to reduce both average and worst-case latency, and achieve more predictable latency. This includes defining a QoS management mechanism to differentiate latency sensitive traffic from regular traffic, and defining a mechanism to prioritize the transmission of the latency sensitve traffic.

33.x.1. Traffic stream classification

This section defines a mechanism that differentiates latency sensitive traffic from regular traffic.

33.x.2. Prioritization

This section defines a mechanism that prioritizes the transmission of latency sensitive traffic.

**Straw Poll: Do you support to incorporate the proposed draft text in this document 11-21/34r1 to the TGbe Draft 0.3?**

**Result: Yes/No/Abstain**