IEEE P802.11  
Wireless LANs

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| 11be D0.3 CR for the definition of NSTR MLD | | | | |
| Date: 2021-02-22 | | | | |
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Abstract

This submission proposes resolutions for the following CIDs:

Revisions:

* Rev 0: Initial version of the document.
* Rev 1:

***Editing instructions formatted like this are intended to be copied into the TGbe D0.3 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.***

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| **CID** | **Commenter** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1771 | Ilya Levitsky | 142.56 | 35.3.13.4 | "NSTR non-AP MLD" is not defined | Define the referenced term | Revised –  Agree in principle with the commeter.  The definition of STR MLD and NSTR MLD is provided.  TGbe editor to make the changes shown in 11-21/0296r0 |
| 3330 | Yunbo Li | 29.23 | 3.2 | There are multiple subclause use NSTR MLD or STR MLD in the draft. NSTR MLD or STR MLD also frequently be used in many presentation and SP/Motion text, but it lacks of a definition for NSTR MLD and STR MLD. | It is mentioned in presentation 20/1424. I will prepare a SP text for it. | Revised –  Agree in principle with the commeter.  The definition of STR MLD and NSTR MLD is provided.  TGbe editor to make the changes shown in 11-21/0296r0 |

**Discussion:**

The definition of STR/NSTR MLD is mentioned in doc 11-20/1424, when presenting the document, two main questions are asked.

**Question 1: whether need a definition of STR/NSTR MLD?**

Some TG members commented that “NSTR MLD” can be expressed as “MLD that operating on a NSTR link pair”. Firstly it makes the sentence longer. One can read from recent submissions that there are a lot of ML-related SPs whose texts are very very long. A definition of NSTR MLD can help make the expression cleaner in some case. In addition, from the title of many submissions, one can also see that the term “NSTR MLD” is popular (some may use a similar but different term, e.g. Non-STR MLD, NSTR MLD, non-STR device, non-STR STA, constrained MLD, STR constrained MLD,… ). By simple search in the Draft 0.3 and doc 11-20-1935-18-00be-compendium-of-straw-polls-and-potential-changes-to-the-specification-framework-document-part-2, there are about 10 appearences in the Draft and approximately 100 appearances in doc 11-20-1935 that use (N)STR MLD or similar teminologies. Therefore, a definition of NSTR MLD will be more conveninent for reference. Secondly, it is not very accurate to express NSTR MLD as a MLD that operates on a NSTR link pair. It is because a MLD may have multiple link pairs. While some of the link pair are NSTR, and others are STR, then it needs to clarify that “MLD that operating on a NSTR link pair” also cover this case.

It is important to emphasize that when the definition of NSTR MLD is introduced, it does not have any impact on any procedure, because all the procedures are based on link pair. A definition of NSTR MLD will help make the text cleaner, and facilitate discussion among members.

**Question 2: the definition is based on the associated (setup) links, or the links it actually use (enabled links)?**

Personally I prefer the definition that is based on the capability. The reason is that the capability based definition is clearer. Otherwise, if the definition is based on the enabled links, then it could be dynamicly changed based on the status of enabled links. It also looks a little strange that an MLD reported that it has a NSTR link pair, but it is actually a STR MLD when it is operating (because one link of the NSTR link pair is disabled).

Two versions of definitions are provided below, and the group can choose the one that gets more support.

**Propose:**

***TGbe editor: Please add below definitions in the subclause 3.2 :***

**3.2 Definitions specific to IEEE Std 802.11**

Opt 1:

**Simultaneous transmit and receive (STR) multi-link device (MLD):** an MLD with all of its link pairs of the associated links are STR

**Nonsimultaneous transmit and receive (NSTR) multi-link device (MLD)**: an MLD that is not an STR MLD. (#1771, 3330)

Opt 2:

**Simultaneous transmit and receive (STR) multi-link device (MLD)**: an MLD with all of its link pairs of the enabled links are STR

**Nonsimultaneous transmit and receive (NSTR) multi-link device (MLD)**: an MLD that is not an STR MLD. (#1771, 3330)

**Straw Poll: Which option do you prefer for the definition of STR/NSTR MLD?**

* **Opt 1**
* **Opt 2**
* **Abs**