IEEE P802.11
Wireless LANs

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| SubmissionCR NSTR link pair definition |
| Date: 2021-04-13 |
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Abstract

This submission proposes resolutions to TGbe CC34 CIDs as listed:

1482 1661 2141 2259 2455 2958

Related to the subject: definition of NSTR link pair.

Revisions:

* R0: Initial version of the document.
* R1:
	+ Added CID list in the abstract section of the document
	+ Turned off “show paragraphs and spaces”
* R2:
	+ Change the reference in the definition from 35.3.13.3 to 35.3.13.4 to coordinate with changes in those subclauses.
* R3:
	+ CID 1661 proposed changes – move the 35.3.13.4 normative definition of NSTR into the definition here
	+ CID 1482 – new CID for this doc, adds a proposed change to include a note taken from 35.3.13.4
* R4:
	+ Add CID 1482 to the list of covered CIDs in the abstract
* R5:
	+ Move the comment on the use of the term “link” to 11-21-0983 (CID 2071)
	+ Update to D1.0 draft reference
	+ CID 1661, 2455 resolutions modified to exclude any changes to the term “link”
	+ CID 2259 resolution modified to reflect an updated understanding of the meaning of the comment
	+ CID 2958 – modify resolution to REJECT, and modified the proposed resolution language as appropriate, as the commenter’s proposed change attempts to redefine the NSTR relationship as one that is between MLDs instead of between links within a single MLD

***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.***

**CIDs**

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| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution (Proposed)** |
| 1482 | Dibakar Das | 35.3.13.4 | 142.35 | Move the note as part of the definition of NSTR link pairs. Also, define the term "NSTR link pairs" precisely by reinstating the red highlighted text in P142 L1. | as in comment. | Revise – TGbe editor to move the cited note from 35.3.13.4 to the definition of NSTR pair, per the instructions found in 11-21-0530r5 |
| 1661 | GEORGE CHERIAN | 3.1 | 0.00 | Move the definition of "Nonsimultaneous transmit and receive (NSTR) link pair" to 3.2 | As in the comment | Revise – TGbe editor to move the definition of NSTR link pair from 3.1 to 3.2 and pull the more formal definition of NSTR which includes a reference to the subclause containing receiver minimum performance from 35.3.13.3 to this definition, per the instructions found in 11-21-0530r5 |
| 2141 | Laurent Cariou | general | 0.00 | editorial harmonize NSTR/non-STR throughout the spec | as in comment | Revise – TGbe editor to change all instances of “non-STR” to NSTR throughout the TGbe draft standard, per the instructions found in 11-21-0530r5 |
| 2259 | Michael Montemurro | 3.1 | 29.18 | It's hard to determine what the context is here for link. What is the link between. | Change "A pair of links for which a STA of an MLD has" to "A pair of links between STAs affiliated with associated MLDs that have" | Revise – TGbe editor to change the definition of NSTR link pair to include a reference to MLD to clarify where the links are, as per the instructions found in 11-21-0530r5 |
| 2455 | Payam Torab Jahromi | 3.1 | 29.18 | Is NSTR relationship between two links a declaration by an STA that terminates one of those two links or declaration by the MLD? That is, is it possible to have 2 links, link 1 and link 2, respectively terminating on STA 1 and STA 2 within an MLD, and then see STA1 declaring them as NSTR, but STA2 declaring them as STR? It seems NSTR relationship should be at MLD level, meaning in this case the MLD comprising STA 1 and STA 2 declares/decides a link pair to be NSTR. | Change the definition to "A pair of links for which an MLD has indicated a nonsimultaneous transmit and receive relationship as defined in 35.3.13.3 (Nonsimultaneous transmit and receive (NSTR) operation). Each link of such a pair is a member of the NSTR link pair." | Revise – TGbe editor to add “within an MLD” to clarify that the relationship is defined at the MLD level and other changes to the definition of NSTR link pair, per the instructions found in 11-21-0530r5. To employ the commenter’s proposed language would create a circular definition, as the element providing the indication of NSTR link pairs needs to rely on the definition in this subclause. |
| 2958 | Tomoko Adachi | 3.1 | 29.18 | I think "Each link of such a pair is a member of the NSTR link pair." is no use. On the other hand, a STA that indicated an nonsimultaneous transmit and receive relationship shall be a peer STA on either side of the link. | Change the definition to "A pair of link where a STA of an MLD on either side of the link has indicated an nonsimultaneous transmit and receive relationship as defined in 35.3.13.3 (Nonsimultaneous transmit and receive (NSTR) operation)." | Reject – the NSTR concept is the definition of a relationship between links at a single MLD instance, and not a concept relating a link of one MLD to a link of another MLD. While there are implications with respect to the behaviors required by a STA of an MLD that is engaged in a frame exchange with a STA of an MLD where either or both STAs are operating on links that are NSTR, those behaviors vary depending on what the particular combination is. E.g. a STA on a link that is not part of an NSTR pair transmitting to a STA on a link that is part of an NSTR pair vs a STA on a link that is part of an NSTR pair transmitting to a STA on a link that is not part of an NSTR pair, plus many other such variants. Because of the possible variants, it is useful to identify whether any given STA is operating on a link that is a member of an NSTR pair at that MLD to which the STA is affiliated, hence the utility of the final sentence of the definition. |

**Discussion**

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**Proposed changes**

***TGbe editor: Within TGbe Draft D1.0, change the definition of NSTR link pair found in subclause 3.1 Definitions, as shown, noting that a later editing instruction will move the definition to a different subclause:***

**3.1 Definitions**

**Nonsimultaneous transmit and receive (NSTR) link pair:** A pair of links within an MLD for which the receiver requirements specified in Clause 36 (Extremely high throughput (EHT) PHY specification) are not met on one of the links when a STA of the MLD is transmitting on the other link. Each link of such a pair is a member of the NSTR link pair. **(#1661, #2455, #2259)**

NOTE—If an MLD supports transmission on link 1 concurrent with reception on link 2, but cannot support transmission on link 2 concurrent with reception on link 1, this pair of links is NSTR. **(#1482)**

***TGbe editor: Within TGbe Draft D1.0, move the definition of NSTR link pair found in subclause 3.1 Definitions to subclause 3.2 Definitions specific to IEEE 802.11.* (#1661)**

***TGbe editor: Within TGbe Draft D1.0, replace all occurrences of “non-STR” with “NSTR”.* (#2141)**