IEEE P802.11
Wireless LANs

|  |
| --- |
| D0.1 Comment Resolution – CID 397, 611, 1636, 1645, 645 |
| Date: 7 May 2011 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Minho Cheong | ETRI |  |  | minho@etri.re.kr |
|  |  |  |  |  |

Abstract

This document provides resolutions for CIDs 397, 611, 1636, 1645, 645

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CommentID** | **Subclause** | **Page** | **Line** | **Comment** | **SuggestedRemedy** | **Response** |
| 397 | 22.3.9.2.3 | 102 | 17 | Given that some users have 0STS, u starts from 0 but Userv starts from 1, precision and consistency is important. Thus "User 1/2/3/4" should relate to the TXVECTOR, and is currently called (oddly) USER\_NUM not "user" | Harmonize "user" language with TXVECTOR language | Accept in principle |
| 611 | 22.3.9.2.3 | 102 | 17 | User index in N\_STS in VHT-SIG-A1 is u=0,1,2,3. Also, USER\_INDEX in TXVECTOR is 0-3 (Table 22-1). Suggest to follow the same convention for user index for 'coding' in VHT-SIG-A2. | Change "user 1" to "user 0" on lines 17 and 22.Change "user 2" to "user 1" on lines 37 and 42.Change "user 3" to "user 2" on lines 45 and 50.Change "user 4" to "user 3" on lines 54 and 57. | Accept in principle |
| 1636 | 22.3.9.2.3 | 102 | 17 | There is a little ambiguity whether user index starts from 0 or 1? This sentence here cannot match to the expression. In addition to that, in all the equations in following text, user index, u has the range from 0 to N\_u - 1. But, all the text which describes each user thing in MU-MIMO have the expression that user 1, 2, 3, 4. Because there are already lots of these kind of text, it may be very difficult to modify all the text or equations. | How about this additional words at this field? : "user 1" here needs to be changed into "user 1 (user index described in N\_STS field (B10-B21) is 0 here)". In the similar way, user 2, user 3 and user 4 also can be changed in to one with additional supplementary words for clarification. | Accept in principle |

<Discussion>

There was an ambiguity on whether user *u* starts with 0 or 1. In addition, so was on what is the appropriate term to express this concept among ‘user *u* or *u*th user’, ‘USER\_INDEX’ and so on. From discussions about similar problems in section 22.2 and section 22.3.12 (as resolutions to CID #468, #284, #453 in “11-11-0511-04-00ac-d01-comment-resolution-brianh-part-3” by Brian Hart), in the end, it is concluded that ‘USER\_INDEX’ and ‘USER\_NUM’ is replaced by ‘USER\_POSITION’ and ‘user *u* or *u*th user’, respectively, where the *u*th user has its NSTS*u* indicated at USER\_POSITION[*u*]; and the USER\_POSITION array starts with index 0. *u* also start with 0. To make the draft consistent over the entire document, I also introduce here ‘user *u*’ starting with 0 instead of ‘USER\_INDEX’.

**TGac editor: modify D0.4 P128L12--24, as follows**

B3:

For SU, B2 is set to 0 for BCC, 1 for LDPC

For MU, if the NSTS field for user 0 is non-zero, then B2

indicates the coding used for user 0; set to 0 for BCC and

1 for LDPC. If the NSTS field for user 0 is set to 0, then

this field is reserved and set to 1.

B3:

Set to 1 if LDPC PPDU encoding process (or at least one

LPDC user’s PPDU encoding process) results in an extra

OFDM symbol (or symbols) as described in 22.3.11.5.2

(LDPC coding) and 22.3.11.5.3 (Encoding process

for MU transmissions). Set to 0 otherwise.

**TGac editor: modify D0.4 P128L25--39, as follows**

For SU:

MCS index

For MU:

If the NSTS field for user 1 is non-zero, then B4 indicates

coding for user 1: set to 0 for BCC, 1 for LDPC. If NSTS

for user 1 is set to 0, then B4 is reserved and set to 1.

If the NSTS field for user 2 is non-zero, then B5 indicates

coding for user 2: set to 0 for BCC, 1 for LDPC. If NSTS

for user 2 is set to 0, then B5 is reserved and set to 1.

If the NSTS field for user 3 is non-zero, then B6 indicates

coding for user 3: set to 0 for BCC, 1 for LDPC. If NSTS

for user 3 is set to 0, then B6 is reserved and set to 1.

B7 is reserved and set to 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CommentID** | **Subclause** | **Page** | **Line** | **Comment** | **SuggestedRemedy** | **Response** |
| 1645 | 22.3.9.2.6 | 114 | 50 | There is a little ambiguity as I already pointed out at Line 17 in page 100 | for user u (index starts from 0) at subcarrier k. | Accept |

<Discussion>

It is similar comment to the previous one. I also introduce here ‘user *u*’ starting with 0 instead of ‘USER\_INDEX’.

**TGac editor: modify D0.4 P139L37--39, as follows**

In Equations , , and ,  is the constellation point of VHT-SIG B for user *u* (starting with 0) at subcarrier *k* (prior to multiplication by ).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CommentID** | **Subclause** | **Page** | **Line** | **Comment** | **SuggestedRemedy** | **Response** |
| 645 | 22.3.22 | 150 | 23 | MU user index is set to 0-3 in other places. | Change "user 1, 2, 3 and 4" to "user 0, 1, 2 and 3". | Accept |

<Discussion>

It is also similar comment to the previous ones. I also introduce here ‘user *u*’ starting with 0. In addition, to make the entire draft more consistent, I checked the entire document to apply this kind of modifications. For your information, spatial stream index *iss* is defined as an integer value between 1 and *Nss* by the resolution to CID #1663.

**TGac editor: modify D0.4 P176L18--22, as follows**

In case of SU transmissions, B2 of VHT-SIG-A2 indicates the type of coding. The PHY entity shall use an

LDPC decoder to decode the C-PSDU if this bit for its C-PSDU is set to 1. In case of MU transmissions,

B2, B4, B5 and B6 of VHT-SIG-A2 indicate the type of coding for user 0, 1, 2 and 3, respectively.

**TGac editor: modify D0.4 P119L52, as follows**

*Nu* represents the number of users in the transmission, and *u* is the user index starting with 0.