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| Project                      | <b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >   |  |
| Title                        | <b>Transmission Counter</b>  |  |
| Date Submitted               | <b>2007-11-09</b>  |  |
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| Re:                          | Letter Ballot 29 Task Group Review of P802.16h/D3  |  |
| Abstract                     | Transmission counter allowing SS to know whether a DL frame was intentionally not transmitted by the BTS.  |  |
| Purpose                      | Comment 30 in the working group review of P802.16h/D2c was accepted in principle, but the group requested a different implementation.  |  |
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# Transmission Counter

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## 1. Overview

Comment 30 in [2] was accepted in principle at session 51, but it was requested that the mechanism be changed so as to not alter the frame number. This document provides the new implementation.

**The Frame maker file is available for the editor.**

## 2. Specific Editing Changes

This document provides changes to IEEE P802.16h/D3 [1].

Blue underlined text represents specific editing changes.

~~Red-strikethrough~~ text is to be deleted.

Black text is already in the draft.

***Bold italics*** text is editing instructions to the editor.

***Assuming the removal of EQP suggested in [3] is accepted, on page 46, line 6, replace “EQP\_IE” with “TxCNT\_IE”.***

***Assuming the removal of EQP suggested in [3] is accepted, on page 46, line 46 through page 47, line 17, replace section 8.4.5.3.29 with the following new section:***

### **2.0.0.0.1 Transmission Count (TxCNT) IE format**

WirelessMAN-CX and WirelessMAN-CBP systems that operate in a mode where the BS may intentionally refrain from transmitting in a given DL subframe shall include the TxCNT IE in the DL-MAP to allow an SS to determine that a previous missing DL subframe was intentionally not transmitted by comparing the incrementing of the Tx Count to the incrementing of the frame number.

Table 286ab—TxCNT IE

| Syntax        | Size   | Notes   |
|---------------|--------|---|
| TxCNT_IE() {  |        |   |
| Extended DIUC | 4 bits | TxCNT_IE = 0x0A                                 |
| Length        | 4 bits | Length = 0x01                                   |
| Tx Count      | 8 bits | Count, modulo 256, of DL subframes transmitted. |
| }             |        |   |

### 3. References

- [1] IEEE P802.16h/D3: *Air Interface for Fixed Broadband Wireless Access Systems Improved Coexistence Mechanisms for Licensed Exempt Operation*, Working Group Draft, 1 Oct 2007.
- [2] IEEE 80216h-07\_20r3, “Comments in Task Group Review of Working Group Draft P802.16h/D2c”, 4 Oct 2007
- [3] IEEE C80216h-07\_097, “*EQP Removal*”, Ken Stanwood, 4 Nov. 2007.