

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Editorial Corrections to HFDD in OFDM PHY</b>	
Date Submitted	<b>2005-03-17</b>	
Source(s)	<p>Atul Salvekar Baraa Al-Dabagh Minh-Anh Vuong Sathish Kumar Shlomo Ovadia Hassan Yaghoobi</p> <p>Voice: 408-765-2449, <a href="mailto:atul.a.salvekar@intel.com">mailto: atul.a.salvekar@intel.com</a> <a href="mailto:baraa.al.dabagh@intel.com">mailto: baraa.al.dabagh@intel.com</a> <a href="mailto:minh-anh.q.vuong@intel.com">mailto: minh-anh.q.vuong@intel.com</a> <a href="mailto:sathish.k.kumar@intel.com">mailto: sathish.k.kumar@intel.com</a> <a href="mailto:shlomo.ovadia@intel.com">mailto: shlomo.ovadia@intel.com</a> <a href="mailto:hassan.yaghoobi@intel.com">mailto: hassan.yaghoobi@intel.com</a></p> <p>Intel Corporation SC12-512 2200 Mission College Blvd. Santa Clara, CA 95054</p> <p>Roland Muenzner Alcatel SEL AG Holderaeckerstrasse 35 70499 Stuttgart Germany <a href="mailto:roland.muenzner@alcatel.de">mailto: roland.muenzner@alcatel.de</a></p> <p>Radu Selea 302 Town Centre Blvd. 100 Markham, ON Canada <a href="mailto:radu@redlinecommunications.com">mailto: radu@redlinecommunications.com</a></p> <p>Rainer Ullmann 1375 Trans-Canada highway Dorval, QC Canada <a href="mailto:rullman@wavesat.com">mailto: rullman@wavesat.com</a></p> <p>David Castelow Airspan Networks Uxbridge, UB8 1UN, UK Voice: +44-1895-467281, <a href="mailto:dcastelow@airspan.com">mailto:dcastelow@airspan.com</a></p>	
Re:	Supporting document for call for contribution for corrigendum document	
Abstract	The definition of where information ends and begins is vague. The language is cleaned up.	
Purpose	Adoption in P802.16-2004/Cor 1	
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.	
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.	
Patent Policy and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures < <a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a> >, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the	

likelihood that the draft publication will be approved for publication. Please notify the Chair <<mailto:chair@wirelessman.org>> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site <<http://ieee802.org/16/ipr/patents/notices>>.

---

## 1 Introduction

In section 8.3.5.1 of [1] the following paragraphs are vague. We propose cleaning up the language with an editorial change. This implies an adjustment to after table 236 of:

In TDD and H-FDD systems, subscriber station allowances must be made by a transmit-receive turnaround gap SSTTG and by a receive-transmit turnaround gap SSRTG. The BS shall not transmit downlink information to a station later than (SSRTG+RTD) before its scheduled uplink allocation, and shall not transmit downlink information to it earlier than (SSTTG-RTD) after the end of scheduled uplink allocation, where RTD denotes Round-Trip Delay. The parameters SSRTG and SSTTG are capabilities provided by the SS to BS upon request during network entry (see 11.8.3.1).

### Connection Identifier (CID)

Represent the assignment of the IE to a broadcast, multicast or unicast address. If the broadcast or multicast CID is used then it is possible to concatenate unicast MAC PDUs (with different CIDs) into a single DL burst. During a broadcast of multicast DL burst it is the responsibility of the BS to ensure that any MAC PDUs sent to an HFDD SS do not overlap (in time: taking TTG and RTG into account) any UL allocation for that SS. An HFDD SS for which a DL MAP IE and UL MAP IE overlap in time shall use the UL allocation and discard the DL traffic during the overlap period.

Changes below are relative to [2].

## 2 Outline of Proposed Solution

Instead of “information” define the allocations with respect to the actual bursts that are sent.

## 3 Proposed Text Changes

### Proposed Text Change 1:

At page 39, line 4, insert the following text:

Replace the text of the tenth paragraph as follows:[DAC1]

In TDD and H-FDD systems, subscriber station allowances must be made by a transmit-receive turnaround gap SSTTG and by a receive-transmit turnaround gap SSRTG. ~~The BS shall not transmit downlink information to a station later than (SSRTG+RTD) before its scheduled uplink allocation, and shall not transmit downlink information to it earlier than (SSTTG-RTD) after the end of scheduled uplink allocation, where RTD denotes Round-Trip Delay.~~ The BS shall transmit DL bursts intended for an SS such that the end of any DL burst shall not be transmitted to the SS later than (SSRTG+RTD) before its scheduled uplink allocation and the beginning of any DL burst to the SS shall not be transmitted to the SS earlier than (SSTTG-RTD) after the end of its scheduled uplink allocation, where RTD denotes Round-Trip Delay. The parameters SSRTG and SSTTG are capabilities provided by the SS to BS upon request during network entry (see 11.8.3.1).

### Proposed Text Change 2:

At page 41, line 57, insert the following text:

*Change the definition of the 'Connection Identifier (CID) field below Table 236 as indicated:*

### Connection Identifier (CID)

Represents the assignment of the IE to a broadcast, multicast or unicast address. If the broadcast or multicast CID is used then it is possible to concatenate unicast MAC PDUs (with different CIDs) into a single DL burst. During a broadcast of multicast DL burst it is the responsibility of the BS to ensure that any MAC PDUs bursts sent to an HFDD SS do not overlap (in time; taking SSTTG and SSRTG into account) any UL allocations for that SS. An HFDD SS for which a DL MAP IE and UL MAP IE overlap in time shall use the UL allocation and discard the DL traffic during the overlap period.

## 4 References

[1] IEEE Std 802.16-2004 Standard for Local and metropolitan area networks Part 16: Air Interface for Fixed Broadband Wireless Access Systems.

[2] IEEE, “Corrigendum to IEEE Standard for Local and metropolitan area networks Part 16: Air Interface for Fixed Broadband Wireless Access Systems,” P802.16-2004/Cor1/D1, 2005-02-11.