v

Project	IEEE 802.16 Broadband Wireless Access Working Group http://ieee802.org/16 >
Title	Support of Long Data in Extended IE
Date Submitted	2005-01-17
Source(s)	Geunhwi Lim, Yong Chang Samsung Electronics Co. Ltd. geunhwi.lim@samsung.com
Re:	
Abstract	Extended IE fragmentation scheme
Purpose	Adoption of proposed changes into P802.16e /D5-2004
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 (Version 1.0) http://ieee802.org/16/ipr/patents/policy.html , including the statement "IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing 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:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site http://ieee802.org/16/ipr/patents/notices>.</mailto:r.b.marks@ieee.org>

2005-01-17 IEEE C802.16e-05/090

1 Introduction

The length of the payload of extended IE is limited to 15 Bytes (120 bits) in both DL and UL MAP Message. However, some extended IE (*Ex: HO Active Anchor UL MAP IE, HO CID Translation MAP IE, MIMO in another BS IE, and etc.*) defined in 16e may have a large payload because of the loop inside the payload itself. The best way to eliminate this limitation is to increase the size of length filed in the extended IE. But, in 802.16e standard, it's not possible to change the size because of the backward compatibility problem.

Hence, this contribution presents a mechanism to support a large payload in extended IE without backward compatibility problem..

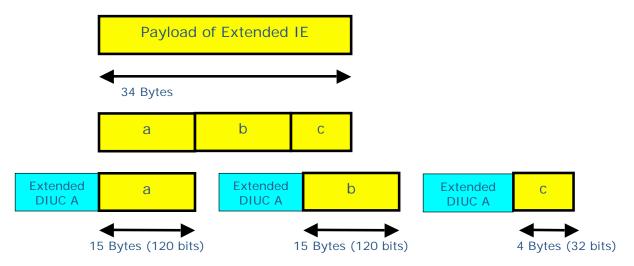


Figure 1 Fragmentation of long payload in Extended IE

When the size of payload exceeds 15 Bytes, the payload shall be divided into several fragmented payloads which has a size of 15 Bytes. Then each fragmented payload will have a Extended DIUC header with a same extended DIUC value.

This payload fragmentation mechanism is applied only on specific extended IE. And the IE which adopt the payload fragmentation shall specify that BS can apply payload fragmentation on it.

2 Text Change

Add new section

[Add a text in section 8.4.5.3.2 as follows]

8.4.5.3.2 DL-MAP extended IE format

A DL-MAP IE entry with a DIUC value of 15, indicates that the IE carries special information and conforms to the structure shown in Table 275. A station shall ignore an extended IE entry with an extended DIUC value for which the station has no knowledge. In the case of a known extended DIUC value but with a length field longer than expected, the station shall process information up to the known length and ignore the remainder of the IE.

For a some extended IE which have a fragmentable and variable size data, if the size of data is exceeds 15 Bytes, the data shall be divided into several fragmentation. Each fragmented data will have a Extended DIUC

2005-01-17 IEEE C802.16e-05/090

header with a same extended DIUC value. This data fragmentation mechanism shall be applied only on specific extended IE. And the IE which adopt the payload fragmentation shall specify that BS can apply payload fragmentation on it.

When a MSS finds sequential extended IE which is adopting the data fragmentation, MSS shall decode the data after it merge the data in each extended IE into one.

To support fragmentation, the definition of the IE shall includes a text "This IE support a fragmentation of data."