Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>	
Title	**Correction of ARQ Feedback IE with extended capability**	
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Source(s)	Youngbin Chang, Geunhwi Lim Samsung Electronics Giovanni Maggi, Aik Chindapol Nokia Siemens Networks Gerrit Hiddink Motorola	yb.chang@samsung.com geunhwi.lim@samsung.com giovanni.maggi.ext@siemens.com Aik.chindapol@nsn.com ghiddink@motorola.com *<http://standards.ieee.org/faqs/affiliationFAQ.html>
Re:	In response to #LB26a	
Abstract	This contribution proposes the correction of ARQ Feedback IE with extended capability	
Purpose	Propose specification changes on IEEE P802.16Rev2/D2.	
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Correction of ARQ Feedback IE with extended capability

Youngbin Chang, Geunhwi Lim
Samsung Electronics
Giovanni Maggi, Aik Chindapol,,
Nokia Siemens Networks
Gerrit Hiddink
Motorola

Introduction

The ARQ feedback IE with extended capability (6.3.4.2.1) was accepted in the #52 IEEE meeting. This contribution proposes some texts to fix editorial error and to support ARQ type 4.

Proposed Remedy

- **Editorial text change for fixing editorial error and text clarification in the table 167**
- **Fix the text to support ARQ ACK type 4 in the table 167**
  - In ARQ type 3(Cumulative ACK with block Sequence ACK entry), the first sequence of ACK map shall start from NAK because this type is cumulative ACK type.
  - In ARQ type 4(Block sequence ACK entry), the first sequence of ACK map may start from ACK or NAK
    - To support this operation, first ACK map of type 3 and type 4 shall be different.

Spec Changes:

[Modify the text in table 167, page 271 as follows:]

Syntax	Size (bits)	Notes
ARQ_feedback_IE (LAST) {	*variable*	—
CID	16	The ID of the connection being referenced
LAST	1	0 = More ARQ feedback IE in the list 1 = Last ARQ feedback IE in the list
ACK Type	3	0x0 = Selective ACK entry 0x1 = Cumulative ACK entry 0x2 = Cumulative with Selective ACK entry 0x3 = Cumulative ACK with Block Sequence AckCK entry 0x4 = Block Sequence ACK entry 0x5-0x7 : Reserved, set to zero
BSN	11	—
Number of ACK MapsReserved	1	ReservedSet to zero
if (ACK Type!= 001) {	—	—
If(ACK Type!=3)if (ACK Type == 0 || ACK Type == 2) {	—	—
MAP Last Bit	1	0: Another ACK Map follows 1: This is the last ACK Map
Selective ACK Map	15	
}	—	—
else{	—	—
Map Last bit	1	0: Another ACK Map follows 1: This is the last ACK Map
Sequence Format	1	Number of block sequences associated with descriptor 0: 2 block sequences, 1: 3 block sequences
if(ACK Type == 3) {	—	—
if (Sequence Format == 0) {	—	—
Sequence ACK Map	1	This bit corresponds to the sequence 2 length field in the descriptor.
Sequence 1 Length	6	Sequence 1 field always represents NAK blocks
Sequence 2 Length	7	—
}	—	—
else {	—	—
Sequence ACK Map	2	The MSB of this field corresponds to the sequence 2 length field in the descriptor.
Sequence 1 Length	4	Sequence 1 field always represents NAK blocks
Sequence 2 Length	4	—
Sequence 3 Length	4	—
}	—	— End of Block Sequence ACK Map definition
}	—	—
if(ACK Type == 4) {	—	—
if (Sequence Format == 0) {	—	—
Sequence ACK Map	2	—
Sequence 1 Length	6	—
Sequence 2 Length	6	—

}	—	—
else{	—	—
Sequence ACK Map	3	—
Sequence 1 Length	4	—
Sequence 2 Length	4	—
Sequence 3 Length	3	—
}	—	—
}	—	—
}	—	—
While(!Map Last bit) {	—	—
~~If(ACK Type!=3)~~if (ACK Type == 0 || ACK Type == 2) {	—	—
MAP Last Bit	1	0: Another ACK Map follows 1: This is the last ACK Map
Selective ACK Map	15	—
}		—
else {		~~— Start of Block Sequence ACK Map definition (16 bits)~~
MAP Last Bit	1	0: Another ACK Map follows 1: This is the last ACK Map
Sequence Format	1	Number of block sequences associated with descriptor 0: 2 block sequences, 1: 3 block sequences
if (Sequence Format == 0) {	—	—
Sequence ACK Map	2	—
Sequence 1 Length	6	—
Sequence 2 Length	6	—
}	—	—
else{	—	—
Sequence ACK Map	3	—
Sequence 1 Length	4	—
Sequence 2 Length	4	—
Sequence 3 Length	3	—
}	—	—
}	—	—
}	—	~~— End of Block Sequence ACK Map definition~~
}	—	—
}	—	—