Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**	
Title	**List of IEs and period bit assignment**	
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Re:	**IEEE Std 802.16e-2005**	
Abstract	**This contribution lists IEs and their period bit assignment which are inconsistently defined 2 bits and 3 bits in the current document. It is a follow up contribution to clarify the discussion regarding change request comment #380**	
Purpose	**To bring intention in inconsistently assigned period bits in IEs and recommend making the field consistent.**	
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List of IEs and Period Bits Assignment

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This contribution lists IEs and their period bit assignment which are inconsistently defined 2 bits and 3 bits in the current document. It is a follow up contribution to clarify the discussion regarding change request comment #380 (see document C80216maint-06_058.doc for the original contribution).

The following Table lists 13 IEs where CQICH channel feedback period is defined. As you can see, 7 IEs uses 3 bit period, and 6 IEs uses 2 bit period. In addition, some IEs are nibble aligned, some are not. Certain IEs also artificially change the duration fields from 3 bits to 4 bits to make the nibble aligned. Even with this kind of change, due to the variable fields in some IEs, there is no way to make sure that IEs are always nibble aligned.

In conclusion, the recommendation is to change 2 bits to 3 bits in all the IEs listed in Table 1. By doing so, it makes no impact on nibble alignment (however, if people feels strongly to make every IE nibble alignment, then we need to add or reduce reserve bits, even by doing so, there are at least 2 IEs, which are impossible to be nibble aligned sue to the existence of variable field).

In addition, there is another inconsistency related duration bits and the actual duration definition. One of the duration definitions ($2^{(d-1)}$) does not make sense if we consider d as the actual data field, where when d is equal to zero, the duration is 0.5 frame.

Table 1: IEs related to CQICH allocation

Page #	Table #	IE name	Period (#bits)	Duration (#bits)	Duration	Nibble Aligned (before)	Nibble Aligned (after)
25	Figure 20c	CQICH allocation request	3	N/A	-	N/A	N/A
86	Table 95	HARQ CQICH_Control IE format	2	4	$2^{(d-1)}$,∞	y	N unless change Period and Duration together or add reserved bits
141	109i	MOB_BSHO-REQ message format	2	3	0, $10*2^d$, ∞	N, CQICH_D is a variable field, in addition, the loop ahead of Period is	No need

						not nibble aligned.	
154	**109n**	**MOB_BSHO-RSP message format**	**2**	**3**	**0, $10*2^d$, ∞**	**N**	**No need**
407	**286m**	**DL HARQ Chase sub-burst IE**	**3**	**4**	**until ACID is finished, $2^{(d-1)}$, ∞**	**Y**	**Y**
417	**286t**	**Dedicated MIMO DL Control IE format**	**3**	**4**	**$10*2^d$**	**N**	**N**
426	**286y**	**AAS_SDMA_DL_IE**	**3**	**4**	**0, 2^{d-1}, ∞**	**Y (in some area)**	**Y (in some area)**
468	**300**	**CQICH alloc IE format**	**2**	**3**	**0, $10*2^d$, ∞**	**N**	**N**
475	**302b**	**CQICH Enhanced allocation IE**	**3**	**3**	**0, $10*2^d$, ∞**	**N**	**N**
484	**302i**	**Anchor_BS_switch_IE**	**2**	**3**	**0, $10*2^d$, ∞**	**N**	**N**
501	**302v**	**Feedback polling IE**	**2**	**3**	**0, 4^{d-1}, ∞**	**N**	**N**
408	**286n**	**DL HARQ IR CTC sub-burst IE()**	**3**	**4**	**until ACID is finished, $2^{(d-1)}$, ∞**	**N (variable RCID)**	**N**
410	**286o**	**DL HARQ IR CC sub-burst IE format**	**3**	**4**	**until ACID is finished, $2^{(d-1)}$, ∞**	**N**	**N**

==========Start text proposal ==========

Remedy 1: Change the period filed from 2 bits to 3 bits in all the IEs listed in Table 1.

Remedy 2:

Option 1:

Change the duration field from 3 bits to 4 bits in all the IEs listed in Table 1, and change the notes column to the following:

A CQI feedback is transmitted on the CQI channels indexed by the CQICH_ID for 10 x 2^d frames.

If d == 0, the CQICH is deallocated.

If d == 0b1111, the SS should report until the BS commands the SS to stop.

Option 2:

Change the duration field from 3 bits to 4 bits in all the IEs listed in Table 1, and change the notes column to the following:

A CQI feedback is transmitted on the CQI channels indexed by the CQICH_ID for 2^d frames.

If d == 0, the CQICH is deallocated.

If d == 0b1111, the SS should report until the BS commands the SS to stop.

==========End text proposal ==========