

| | | |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Project | IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 > | |
| Title | List of IEs and period bit assignment | |
| Date Submitted | 2006-09-27 | |
| Source(s) | Peiyong Zhu San-Youb Kim Nortel | Voice: +1 613 765 8089 pyzhu@nortel.com sangyoub@nortel.com |
| 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. | |
| 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 < http://ieee802.org/16/ipr/patents/policy.html >, 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 >. | |

List of IEs and Period Bits Assignment

Peiyong Zhu, San-Youb Kim
Nortel

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 due to the existence of variable field).

Table 1: IEs related to CQICH allocation

| Page # | Table # | IE name | Period (#bits) | Duration (#bits) | 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 | y | N unless change Period and Duration together or add reserved bits |
| 141 | 109i | MOB_BSHO-REQ message format | 2 | 3 | N, CQICH_D is a variable field, in addition, the loop ahead of Period is not nibble aligned. | No need |
| 154 | 109n | MOB_BSHO-RSP message format | 2 | 3 | N | No need |
| 407 | 286m | DL HARQ Chase sub-burst IE | 3 | 4 | Y | Y |

| | | | | | | |
|-----|------|-------------------------------------|---|---|-------------------|------------------|
| 417 | 286t | Dedicated MIMO DL Control IE format | 3 | 4 | N | N |
| 426 | 286y | AAS_SDMA_DL_IE | 3 | 4 | Y (in some area) | Y (in some area) |
| 468 | 300 | CQICH alloc IE format | 2 | 3 | N | N |
| 475 | 302b | CQICH Enhanced allocation IE | 3 | 3 | N | N |
| 484 | 302i | Anchor_BS_switch_IE | 2 | 3 | N | N |
| 501 | 302v | Feedback polling IE | 2 | 3 | N | N |
| 408 | 286n | DL HARQ IR CTC sub-burst IE() | 3 | 4 | N (variable RCID) | N |
| 410 | 286o | DL HARQ IR CC sub-burst IE format | 3 | 4 | N | N |