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| Project                      | <b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                         |
| Title                        | H-ARQ MAP Message Format Correction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                         |
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| Re:                          | This is a contribution to IEEE 802.16 maintenance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |
| Abstract                     | It is not appropriate to allow H-ARQ MAP message sent without a generic MAC header. More importantly, due to new changes accepted by TGe, it is no longer valid to use the first 3 bits of value "0b111" to identify the H-ARQ MAP message. So, it is really needed to design the H-ARQ message as a regular MAC mgmt message, instead of some aliens. Also, our padding byte has value "0xFF", which is also a valid H-ARQ MAP identifier due to its first 3bits of value '0b111". This contribution proposes to format the H-ARQ MAP message as MAC management message.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                         |
| Purpose                      | To solve the applicability issue of the PHS to the applications with fast-changing header fields, and to improve the efficiency of PHS rule updates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                         |
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# H-ARQ MAP Message Correction

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## 1. Introduction

It is not appropriate to allow H-ARQ MAP message sent without a generic MAC header. More importantly, due to new changes accepted by TGe, it is no longer valid to use the first 3 bits of value "0b111" to identify the H-ARQ MAP message. So, it is really needed to design the H-ARQ message as a regular MAC mgmt message, instead of some aliens. Also, our padding byte has value "0xFF", which is also a valid H-ARQ MAP identifier due to its first 3bits of value '0b111". This contribution proposes to format the H-ARQ MAP message as MAC management message.

## 2. References

[16e/D5] IEEE P802.16e/D5-2004

## 3. Proposed Changes

To change the format of the H-ARQ MAP message to a MAC management message, the following changes are needed:

- a) [page 44, line 53, change the entry 19 in Table 14 as follows:](#)  

|    |          |                   |           |
|----|----------|-------------------|-----------|
| 19 | HARQ-MAP | H-ARQ MAP message | Broadcast |
|----|----------|-------------------|-----------|
- b) [page 105, line 15, delete the sentence](#) “This message shall be sent without a generic MAC header.”
- c) [Page 105, line 28, delete the paragraph](#)
- d) [Page 105, line 36, replace Table 86 by the following table](#)

**Table 86 H-ARQ MAP message format**

| Syntax                           | Size   | Notes                                                             |
|----------------------------------|--------|-------------------------------------------------------------------|
| H-ARQ_MAP message format() {     |        |                                                                   |
| Management message type = 19     | 8 bits |                                                                   |
| DL IE count                      | 4 bit  | Number of compact DL-MAP IEs                                      |
| UL IE count                      | 4 bits | Number of compact UL-MAP IEs, if 0, then no H-ARQ UL-MAP appended |
| For (i=0; i< DL IE count; i++) { |        |                                                                   |

|                                 |                 |  |
|---------------------------------|-----------------|--|
| Compact DL-MAP IE ()            | variable        |  |
| }                               |                 |  |
| If (UL IE count >0) {           |                 |  |
| For (i=0; i<UL IE count; i++) { |                 |  |
| Compact UL-MAP IE ()            | variable        |  |
| }                               |                 |  |
| }                               |                 |  |
| If (not byte boundary) {        |                 |  |
| Padding nibble                  | <i>variable</i> |  |
| }                               |                 |  |
| }                               |                 |  |

e) Page 106, line 15, delete line 15 to line 32

f) Page 106, line 35, insert the following:

UL IE count

This field specifies the number of UL IEs in this H-ARQ MAP message. If it is 0, then it indicates no H-ARQ UL MAP IEs are appended.