Fix for ARQ Reset flow charts

Nadav Lavi

1

<table>
<thead>
<tr>
<th>Project</th>
<th>IEEE 802.16e Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Fix for ARQ Reset flow charts</td>
</tr>
<tr>
<td>Date Submitted</td>
<td>2006-07-06, Version: 1.0</td>
</tr>
</tbody>
</table>
| Source(s)       | Nadav Lavi
                 | Alvarion Ltd. <Nadav.Lavi@alvarion.com>                                       |
| Re:             | Call for Maintenance Change Requests on IEEE Std 802.16                      |
| Abstract        | This document suggests changes in TGe Draft Document IEEE 802.16e-2005 to fix ARQ Reset flow charts |
| Purpose         | Adopt into the current Maint TG draft                                         |
| 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   | 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>. |
1. Problem #1

Figure 34 in 802.16e-2005 is incomplete: resetting of parameters ARQ_TX_NEXT_BSN and ARQ_RX_HIGHEST_BSN is missing.

2. Suggested Remedy for Problem #1

[At the page 177 of 802.16e-2005 replace Figure 34 with the following figure]
IEEE C802.16maint-06/009

Transmitter

- Disable transmission

  - Send ARQ Reset Type=0x0

    - Set T22

      - Wait for ARQ Reset Type=0x1

        Timeout T22

        - Retries exhausted?

          - Yes

            ARQ Reset error

          - No

            ARQ Reset Type=0x1 or 0x2

              Clear T22

              ARQ_TX_WINDOW_START=0

              ARQ_TX_NEXT_BSN=0

              Discard SDUs with blocks in Discarded state

              Enable transmission

              End ARQ Reset

Receiver

- Disable reception

  - ARQ_RESET Window START=0

    - ARQ_RX_HIGHEST BSN=0

      - Discard all incomplete SDUs

      - Enable reception

      - Send ARQ Reset Type=0x1

      - End ARQ Reset

Figure 34-ARQ Reset message dialog-transmitter initiated
3. Problem #2
Figure 35 in 802.16e-2005 is incomplete and contains errors:

resetting of parameters ARQ_TX_NEXT_BSN and ARQ_RX_HIGHEST_BSN is missing

2. Suggested Remedy for Problem #2
[At the page 178 of 802.16e-2005 replace Figure 35 with the following figure]
Replace Figure 35 with the following figure:

![Diagram of ARQ Reset message dialog](image)

Figure 35-ARQ Reset message dialog-receiver initiated