| **Project** | IEEE 802.16 Broadband Wireless Access Working Group | **<http://ieee802.org/16>** |
|-------------|--------------------------------------------------|
| **Title**   | Text for Resolution of Session 18 Comments #777,#897,#898,#916 |
| **Date Submitted** | 2002-03-18 |
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| **Re:** | Session 18 Comment Resolution. |
| **Abstract** | At session 18, the author was charged by the TGa MAC group to provide text for inclusion in IEEE P802.16a/D3-2002 to resolve comments #777, #897, #898, #916. This document contains that text. |
| **Purpose** | Text for inclusion in IEEE P802.16a/D3-2002. |
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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:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site http://ieee802.org/16/ipr/patents/notices.
Text for Session 18 Comment Resolution
Bob Nelson
Raze Technologies

Comment #777
Insert the following definition in clause 3 (D2 page 20) at the appropriate location:

3.x ARQ Fragment: A distinct unit of data that is carried on an ARQ-enabled connection. Such a unit is assigned a sequence number, and is managed as a distinct entity by the ARQ state machines. An ARQ fragment may be a complete SDU or may be a portion of an SDU that has been partitioned in accordance with the MAC rules for SDU fragmentation.

Comment #897, #898, #916
Replace the paragraphs between lines 12 and 24, page 52 with the following:

The actions to be taken by the transmitter state machine when an ARQ Reset Message is received are provided in Figure 6.xx, ARQ Reset Message Dialog – Receiver Initiated. The actions to be taken by the transmitter state machine when it wants to initiate a reset of the receiver ARQ state machine are provided in Figure 6.xx, ARQ Reset Message Dialog – Transmitter Initiated.

Initiating a reset of the ARQ state machines shall be undertaken as a final response to abnormal conditions such fragments being discarded at a high rate. The precise conditions when to initiate a reset are out of the scope of the standard and left to the discretion of each implementation.

Replace the paragraphs between lines 17 and 29, page 54 with the following:

The actions to be taken by the receiver state machine when an ARQ Reset Message is received are provided in Figure 6.xx, ARQ Reset Message Dialog – Transmitter Initiated. The actions to be taken by the receiver state machine when it wants to initiate a reset of the transmitter ARQ state machine are provided in Figure 6.xx, ARQ Reset Message Dialog – Receiver Initiated.

Initiating a reset of the ARQ state machines shall be undertaken as a final response to abnormal conditions such as repeated synchronization loss or a high rate of reception of fragments outside the active receive window. The precise conditions when to initiate a reset are out of the scope of the standard and left to the discretion of each implementation.

Insert the figures on the following pages at a “convenient” location near the above text references (they were built and can be edited with Word PowerPoint editor):
Figure 6.xxx - ARQ Reset Message Dialog — Transmitter Initiated
Figure 6.xxx - ARQ Reset Message Dialog — Receiver Initiated

Transmitter

- Receive ARQ Reset Message
  - Type = 00
  - Disable Transmission
  - Issue ARQ Reset Message
  - Type = 01
  - Wait for Response
  - Retries Exhausted?
    - No
    - Yes
      - Error
  - ARQ_TX_WINDOW_START = 0
  - Discard all fragments held by the transmitter from SDUs where one or more fragments have been discarded
  - Enable Transmission

Receiver

- Issue ARQ Reset Message
  - Type = 00
  - Wait for Response
  - Retries Exhausted?
    - No
    - Yes
      - Error
  - Received ARQ Reset Message
  - Type = 00
  - Disabled Reception
  - ARQ_RX_WINDOW_START = 0
  - Discard all incomplete SDUs.
  - Deliver all complete SDUs
  - Enable Reception
  - Issue ARQ Reset Message
  - Type = 10

- Received ARQ Reset Message
  - Type = 01
  - Wait for Response
  - Timeout
  - ARQ_TX_WINDOW_START = 0
  - Discard all incomplete SDUs.
  - Deliver all complete SDUs
  - Enable Transmission