Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>	
Title	**Persistent Allocation – Error handling procedures**	
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Re:	Ballot 26c	
Abstract	Error handling procedures can be simplified if we were to tie error procedures to resource shifting invocation. Recovery procedures related to MAP decoding errors and MAP NACK indication must take into account the MS association with the sub map. It does not make sense for low geometry MS to report map decoding errors of sub maps which were intended for high geometry users	
Purpose	Accept the proposed specification changes on IEEE P802.16Rev2/D4.	
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Simplified Error Procedures for Persistent Allocations

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Introduction

Error handling procedures can be simplified if we were to tie error procedures to resource shifting invocation.

Recovery procedures related to MAP decoding errors and MAP NACK indication must take into account the MS association with the sub map. It does not make sense for low geometry MS to report map decoding errors of sub maps which were intended for high geometry users.

Proposed Solution

Tie error handling procedures to the use of resources shifting. We observe that error handling procedures are made trivial if it is known that resource shifting is not use. We also observe that some systems would not invoke resource shifting, or would use it very sparingly, and therefore would be motivated to take advantage of the simplified error handling procedures.

Simplified Error Procedures – without resource shifting

- MAP ACK for allocation
- MAP ACK for de-allocation
- BS adds safety timer between de-allocation and re-allocation; implementation specific

Benefits

- MS can lose multiple MAPs and resume at K+4
- MS can lose MAPs K and K+1 and resume at K+4
- NO need for MAP NACK; MAP NACK channel allocation set to 1's
- NO secondary error procedures; MS does not send sub-header with persistent MAP error indication
- NO change indicator; BS can set the change indicator to no change.
- NO need to support retransmission flag; BS can set the retransmission flag to no retransmission
- NO need to associate MS with a particular sub MAP

The benefit of the simplified error procedures is that it will result in a more robust system which is less prone to MAP (and sub MAP) errors.

Proposed Text Changes

TBD