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Title	A Proposal for the Removal of the PDE bit from the 802.16.1 MAC Generic Header	
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Re:	This document is a response to 802.16 Letter Ballot #3.	
Abstract	This contribution calls for the removal of the PDE bit from the Generic Header and notes that the TYPE field be used to indicate the presence of this functionality instead. An alternative format for the PDE is not presented.	
Purpose	Modify the TG1 MAC Generic Header to have an additional Reserved bit instead of the PDE bit.	
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A Proposal for the Removal of the PDE bit from the 802.16.1 MAC Generic Header

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Proposed GH Format

The format of the proposed Generic Header for the next 802.16.1 MAC specification revision follows.

HT=0 (1)	EC (1)	EKS (2)	PDE (1)	Length (11)	
CI (1)	Rsv (2)	Payload Type (5)		CID MSB (8)	
CID LSB (8)				HCS (8)	

Figure 1Downlink Generic Header

HT=0 (1)	EC (1)	EKS (2)	PDE (1)	Length (11)
CI (1)	Rsv (2)	Payload Type (5)	CID MSB (8)	
CID LSB (8)			GM (8)	
HCS (8)				

Figure 2 Uplink Format

The Generic Header (GH) is required for all data transmissions over the air. Therefore, a premium is placed on all bits within this header as it represents fixed overhead. The PDE bit is used to mark an MPDU as being eligible for discard. However the bit cannot be acted upon until the packet has already been sent over the air link. Given the implementation specific value of this functionality, it is desirable that the PDE bit reverts to a reserved bit and that the PDE functionality be included within a specific packet type. In other words, the new type field can be used to indicate the presence of a PDE bit in a TBD header addition.

Modification of Proposed Generic Header Format

The following diagrams show the GH with the removal of the PDE bit.

HT=0 (1)	EC (1)	EKS (2)	Rsv (1)	Length (11)	
CI (1)	Rsv (2)	Payload Type (5)		CID MSB (8)	
CID LSB (8)				HCS (8)	

Figure 3 Modified Downlink Format

HT=0 (1)	EC (1)	EKS (2)	Rsv (1)	Length (11)	
CI (1)	Rsv (2)	Payload Type (5)		CID MSB (8)	
CID LSB (8)				GM (8)	
HCS (8)					

Figure Modified Uplink Format