Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**	
Title	**Paging Listening Interval Reduction**	
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Re:	Response to the P802.16e/D5a Ballot Resolution Committee Recirculation Announcement IEEE 802.16-04/79	
Abstract	This contribution recommends reducing the paging listening interval duration from five frames to two frames	
Purpose	To be discussed and considered in preparation of new text for idle mode section.	
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Paging Listening Interval Reduction

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Problem:
The current draft of IEEE802.16e requires that MSS in Idle Mode spend five frames in listening interval during which the MSS listens for one or more PAG-ADV messages. Timing and synchronization of the event is entirely deterministic and does not require the five frames allotted for the activity. Five frames duration of the interval was originally proposed to provide the opportunity of spreading the notification load, breaking a potentially large PAG-ADV payload across multiple frames. While this requirement is still true, five frames is an unnecessarily long period and can significantly reduce the power saving benefit of Idle Mode. The impact is especially dramatic for MSS in 50ms paging unavailable interval on systems with 5ms frame sizes. With a five frame listening interval, the MSS spends a full 1/3 of its time listening (a slight over-estimation as the MSS does not necessarily listen during the entire frame)—not an especially efficient power saving technique.

Remedy:
This contribution proposes that a shorter, two frame listening interval duration be used.

The following sections specify text changes to the D5a draft:

Remedy 1:
[In 6.3.21.6 BS Paging Interval, page 147, line 16, modify line as]:
A BS Paging Interval shall occur during the two frames beginning with the frame whose frame number, Nframe, meets the condition