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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**<http://ieee802.org/16>**>** | |
| Title | Methods to Identify Idle Mode MSs in IEEE 802.16m (16.2.18) | |
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| Re: |  | |
| Abstract | This contribution proposes methods using which AMS in idle mode can determine paging parameters in the Legacy operation mode of IEEE 802.16m. | |
| Purpose | To be discussed and adopted by TGm for 802.16m Letter Ballot 31a. | |
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Methods to Identify Idle Mode MSs in IEEE 802.16m (16.2.18)

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1. Introduction

In IEEE 802.16m based networks, idle mode MSs are identified using the Deregistration Identifier (DID), their paging cycle and paging offsets. Thus, idle mode MSs that belong to same paging group and have same paging cycle and paging offset have unique DID so that they can be identified uniquely.

The DIDs are assigned to idle mode MS by the paging controllers (PCs). One or more PCs manage each paging group. Thus, when two different PCs assign the DIDs to different idle mode MSs of the same paging group, there is a possibility that they assign the same DID to two different MSs. This is because the DID assignment of each PC is independent of the other ones. If both the MS that have the same DID also have the same paging cycle and paging offset, then these MSs have the same identification. This leads to false paging message indication as the paging message for one of these MSs also results in unwanted paging indication. This result in unwanted paging operation and unnecessary signaling overhead.

1. Text proposal for inclusion in the P802.16m/D5

========================== *Start of Proposed Text* ==============================

*[Editor’s Note: Add the following text after line 20 in page 45 in “16.2.1.2.3 Operation during paging unavailable interval” as shown below]*

When more than one PC manage the idle mode AMSs of a particular paging area, they assign the DIDs independently. In this case, there is a possibility that more than one idle mode AMSs of a particular paging group have the same DID. To eliminate this DID collision, the DID space should be large enough by making the DID size 18 bits. .

========================== *End of Proposed Text* ==============================