Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>
Title	**Storing and using Burst Profiles on SS/MS**
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Re:	Re: MAC: Data/Control Plane; in response to the TGm Call for Contributions and Comments 802.16m-08/040 for Session 58
Abstract	This contribution proposes the storing and using of Burst Profiles on SS
Purpose	To be discussed and adopted by TGm for use in the IEEE 802.16m
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Storing and using Burst Profiles on SS

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1. Introduction

In 802.16e, burst profile is defined as: Set of parameters that describe the uplink (UL) or downlink (DL) transmission properties associated with an interval usage code. Each profile contains parameters such as modulation type, forward error correction (FEC) type, preamble length, guard times, etc. UL and DL maps are transmitted on a frequent basis to SS to ensure synchronization. Each burst profile is identified by an Interval Usage Code (IUC).

If 802.16m perpetuates these multi-variable burst profile definitions, then storing a default set is preferable to repetitive re-transmission of the map of burst profiles.

2. Problem Definition

DCD, UCD and Neighbor advertisement message are constantly being transmitted from the BS to receiving MS/SS, which uses bandwidth that could be used for other transport and MAC management messages.

3. Proposed Solution

Having the MS/SS store the more frequently used burst profiles as part of their network access definition files for Network Discovery and Selection while obtaining the initial device/user subscription to the operator network, and then using those profiles with their associated networks for network entry, HO and Re-Entry from Idle Mode would allow the BS(s) to reduce the frequency of transmitting the DCD, UCD and Neighbor advertisement messages. This would make available the bandwidth associated with the previous frequently transmitted DCD, UCD and Neighbor advertisement messages, meaningfully reducing overhead. The effect may also dissociate the need to obtain this information temporally from the Handover and Re-Entry from Idle Mode process, thus removing an impediment to timely decision and execution of these extremely timing sensitive processes.

4. Proposed text

Modify Section 11.7.2.3.4 Transmission format, page 73, line 19 as:

A coded control block is the output of separate coding or joint coding. The MCS of each coded control block may be controlled individually. Coded control blocks may all be transmitted at the same MCS and this transmission scheme is referred to as “fixed MCS”. If each coded block may be transmitted at a different MCS, this scheme is referred to as “variable MCS”.

The MS shall store the most frequently used MCS(s) to be used later for network entry, HO and re-entry from Idle Mode. The default set of stored MCS(s) are FFS.

Coding of multiple unicast service control information elements may therefore either be joint coding or separate coding.