

Proposal for IEEE 802.16m DL Control Structure

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*<http://standards.ieee.org/faqs/affiliationFAQ.html>>

Re: "SDD Session 56 Cleanup, Call for PHY Details"; in response to the Call for Contributions and Comments on Project 802.16m System Description Document (SDD) 802.16m-08/033 for Session 57

Purpose: Adopt the proposal into the IEEE 802.16m System Description Document

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DL Control Structure (1/2)

- Contribution C80216m-08/176 describes a DL control structure that uses both multicast and unicast transmission.
- Contribution C80216m-08/619r1 shows that this hybrid control structure performs better than both a unicast only scheme and a multicast only scheme.
- The proposed scheme consists of a
 - Multicast control segment
 - Unicast control segment
- In a distributed zone, the multicast control segment (MCCS) contains a combination index, which indicates how the available resources are partitioned.
 - In the case where some of the resources are persistent allocations, the MCCS also contains a resource availability bitmap (RAB)

DL Control Structure (2/2)

- In a localized zone, the MCCS contains a permutation index, which indicates how the contiguous resources are partitioned.
- The user specific assignment information is contained within the assigned partition, which contains the data.
- It includes information such as the MCS of the data and the transmission format.
- The mobiles use blind detection to decode the user specific control.
- The unicast control is scrambled by the user ID of the intended user.
- For group assignments, the group control is scrambled by the group ID.

Proposed Text for SDD

- Section 11.x DL Control
 - [*Add content of slides 2-3 to this section*]