Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**RS Multicast CID for 802.16j**
Date Submitted	**2006-11-07**
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Re:	IEEE802.16j-06/027: "Call for Technical Proposals regarding IEEEP802.16j"
Abstract	This contribution proposes the RS multicast CID as a new well-known CID.
Purpose	For discussion and approval of inclusion of the proposed text into the P802.16j baseline document.
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RS Multicast CID for 802.16j

Mike Hart, Keiichi Nakatsugawa and Masato Okuda

Introduction

In a MR system, a MS does not need to receive DL-MAP/UL-MAP messages which define burst allocation on relay link. Therefore, the MR-BS multicasts those MAPs only to RSs, then RSs receives downstream and transmits upstream traffic on relay link in accordance with them.

In order to enable a MR-BS to multicast MAC management messages to its subordinate RSs, a new well-known CID, RS multicast CID, is proposed.

Usage of RS multicast CID is not limited to the above mentioned example. That is, it can be used for any other MAC management messages supposed to be carried with broadcast CID in the current standards.

Specific Text Changes

Change each row at the table 14 in subclause 6.3.2.3 as indicated:

Table 14—MAC Management messages

Type	Message Name	Message description	Connection
0	UCD	Uplink Channel Descriptor	Fragmentable Broadcast or RS multicast
1	DCD	Uplink Channel Descriptor	Fragmentable Broadcast or RS multicast
2	DL-MAP	Downlink Access Definition	Broadcast or RS multicast
3	UL-MAP	Uplink Access Definition	Broadcast or RS multicast
10	PKM-RSP	Privacy Key Management Response	Primary Management or, Broadcast or RS multicast
28	CLK-CMP	SS network clock comparison	Broadcast or RS multicast
38	FPC	Fast Power Control	Broadcast or RS multicast
52	MOB_TRF-IND	traffic indication messages	Broadcast or RS multicast
53	MOB_NBR-ADV	neighbor advertisement messages	Broadcast, Primary Management or RS multicast
61	MOB_PAG-ADV	BS broadcast paging message	Broadcast or RS multicast

Change the Table 345 in 10.4 Well-known addresses and identifiers:

Table 345—CIDs

CID	Value	Description
Initial Ranging	0x0000	Used by SS and BS during initial ranging process.
Basic CID	0x0001 - m	The same value is assigned to both the DL and UL connection.
Primary management	m+1 - 2m	The same value is assigned to both the DL and UL connection.
Transport CIDs, Secondary Mgt CIDs	2m+1 - FE9F	For the secondary management connection, the same value is assigned to both the DL and UL connection.
Multicast CIDs	0xFEA0 - 0xFEFED	For the downlink multicast service, the same value is assigned to all MSs on the same channel that participate in this connection.
RS Multicast CID	0xFEFE	Used by a MR-BS for transmission of management messages to its all subordinate RSs.
AAS initial ranging CID	0xFEFF	A BS supporting AAS shall use this CID when allocating an AAS Ranging period (using AAS Ranging Allocation IE).
Multicast polling CIDs	0xFF00 - 0xFFF9	A BS may be included in one or more multicast polling groups for the purposes of obtaining bandwidth via polling. These connections have no associated service flow.
Normal mode multicast CID	0xFFFA	Used in DL-MAP to information to normal mode MS. denote bursts for transmission of DL broadcast
Sleep mode multicast CID	0xFFFB	Used in DL-MAP to denote bursts for transmission of DL broadcast information to Sleep mode MS. May also be used in MOB_TRF-IND messages.
Idle mode multicast CID	0xFFFC	Used in DL-MAP to denote bursts for transmission of DL broadcast information to Idle mode MS. May also be used in MOB_PAG-ADV messages.
Fragmentable Broadcast CID	0xFFFD	Used by the BS for transmission of management broadcast information with fragmentation. The fragment sub header shall use11-bit long FSN on this connection.
Padding CID	0xFFFE	Used for transmission of padding information by SS and BS.
Broadcast CID	0xFFFF	Used for broadcast information that is transmitted on a downlink to all SS.

References