

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Clarification on Table of MAC Control Messages over IEEE 802.16.1a	
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Source(s)	Eunkyung Kim, Sungcheol Chang, Won-Ik Kim, Seokki Kim, Sungkyung Kim, Miyounng Yun, Hyun Lee, Chulsik Yoon, Jaesun Cha, Soojung Jung, Anseok Lee, Wooram Shin, Kwangjae Lim ETRI	Voice: +82-42-860-5415 E-mail: ekkim@etri.re.kr
Re:	“IEEE 802.16-12-271,” in response to Letter Ballot Recirc #38a on P802.16.1a/D2	
Abstract	Clarification on MAC control message number in GRIDMAN Draft Standard	
Purpose	To discuss and adopt the proposed text in the draft amendment document on GRIDMAN	
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Clarification on Table of MAC Control Messages over IEEE 802.16.1a

Eunkyung Kim, Sungcheol Chang, Won-Ik Kim, Seokki Kim, Sungkyung Kim, Miyoung Yun, Hyun Lee, Chulsik Yoon, Jaesun Cha, Soojung Jung, Anseok Lee, Wooram Shin, Kwangjae Lim
ETRI

1. Introduction

This document provides clarification on numbering the MAC control message.

2. References

- [1] IEEE 802.16-12-0132-00, GRIDMAN System Requirement Document including SARM annex, January 2012.
- [2] IEEE P802.16nTM/D2, Air Interface for Broadband Wireless Access Systems - Draft Amendment: Higher Reliability Networks, April 2012.
- [3] IEEE P802.16.1aTM/D2, WirelessMAN-Advanced Air Interface for Broadband Access Systems - Draft Amendment: Higher Reliability Networks, April 2012.
- [4] IEEE P802.16Rev3/D6, IEEE Draft Standard for Local and metropolitan area networks; Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems,” February 2012.
- [5] IEEE P802.16.1TM/D6, IEEE Draft for WirelessMAN-Advanced Air Interface for Broadband Wireless Access Systems, April 2012.

3. Proposed Text on the IEEE 802.16.1a Amendment Draft Standard

[-----Start of Text Proposal-----]

[Remedy: change from line #2, page 6 to line #1, page 10 on P802.16.1a/D2 as follows:]

6.2.3 MAC control messages

Change Table ~~26~~29 as indicated:

Table 2629 - MAC Control messages

No.	Functional Areas	Message names	Message description	Security	Connection
24	Security	AAI-PKM-RSP	Privacy Key Management Response	Before AK is derived at network entry: NULL at network entry and EAP-transfer message is enclosed: encryption/ICV after AK is derived after AK is derived at network entry and the other message is enclosed: CMAC	Unicast or Multi-cast
FBD 71	Multimode	AAI-MM-ADV	Multimode advertisement	N/A	Broadcast
FBD 72	Multimode	AAI-MM-RS-REQ	Multimode Relay request	Encrypted/ICV	Unicast
FBD 73	Multimode	AAI-MM-RS-RSP	Multimode Relay response	Encrypted/ICV	Unicast
FBD 74	Multimode	AAI-MM-RL-REQ	Multimode release request	Encrypted/ICV	Unicast
FBD 75	Multimode	AAI-MM-RL-RSP	Multimode release response	Encrypted/ICV	Unicast
FBD 76	Multimode	AAI-MM-BS-REQ	Multimode Base station request	Encrypted/ICV	Unicast
FBD 77	Multimode	AAI-MM-BS-RSP	Multimode Base station response	Encrypted/ICV	Unicast
FBD 78	Multimode	AAI-MM-BS-CMD	Multimode Base station command	Encrypted/ICV	Unicast
FBD 79	Multimode	AAI-MM-RS-SYN-REQ	Multimode Relay Synchronization request	Encrypted/ICV	Unicast

Table 2629 - MAC Control messages

No.	Functional Areas	Message names	Message description	Security	Connection
TBD 80	Multimode	<u>AAI-MM-RS-SYN-RSP</u>	<u>Multimode Relay Synchronization response</u>	<u>Encrypted/ICV</u>	<u>Unicast</u>
TBD 81	BS-controlled neighbor discovery <u>BS-controlled direct communication</u>	<u>AAI-HR-RNG-CMD</u>	<u>HR-MS/HR-MS ranging command</u>	<u>Encrypted/ICV</u>	<u>Unicast or multicast or broadcast</u>
TBD 82	BS-controlled neighbor discovery <u>BS-controlled direct communication</u>	<u>AAI-HR-RNG-REP</u>	<u>HR-MS/HR-MS ranging report</u>	<u>Encrypted/ICV</u>	<u>Unicast or multicast or broadcast</u>
TBD 83	<u>Link Establishment</u> <u>Talk-around direct communication</u>	<u>AAI-DC-LEST-REQ</u>	<u>Link Establishment Request</u>		<u>Unicast</u>
TBD 84	<u>Link Establishment</u> <u>Talk-around direct communication</u>	<u>AAI-DC-LEST-RSP</u>	<u>Link Establishment Response</u>		<u>Unicast</u>
85	<u>Talk-around direct communication</u>	<u>AAI-DC-LEST-CMD</u>	<u>Link Establishment Command</u>		<u>Multicast</u>
TBD 86	Measurement <u>Talk-around direct communication</u>	<u>AAI-DC-MES-REP</u>	<u>Measurement Report</u>		<u>Unicast</u>
87	<u>Talk-around direct communication</u>	<u>AAI-DC-MES-CMD</u>	<u>Measurement Command</u>		<u>Unicast or Multicast</u>
TBD 88	Resource Management <u>Talk-around direct communication</u>	<u>AAI-DC-RCHG-REQ</u>	<u>Resource Change Request</u>		<u>Unicast</u>
TBD 89	Resource Management <u>Talk-around direct communication</u>	<u>AAI-DC-RCHG-RSP</u>	<u>Resource Change Response</u>		<u>Unicast</u>
90	<u>Talk-around direct communication</u>	<u>AAI-DC-RCHG-CMD</u>	<u>Resource Change Command</u>		<u>Unicast or Multicast</u>
TBD 91	Token Management <u>Talk-around direct communication</u>	<u>AAI-DC-TKN-REQ</u>	<u>Token Request</u>		<u>Unicast</u>

Table 2629 - MAC Control messages

No.	Functional Areas	Message names	Message description	Security	Connection
TBD 92	Token Management Talk-around direct communication	AAI-DC-TKN-RSP	Token Response		Unicast
TBD 93	Token Management Talk-around direct communication	AAI-DC-TKN-HO	Token Handover		Unicast
94	Talk-around direct communication	AAI-DC-TKN-ADV	Token Advertisement		Multicast
TBD	Link Establishment	AAI-DC-LEST-CMD	Link Establishment Command		Multicast
TBD 95	Link Release Talk-around direct communication	AAI-DC-LREL-CMD	Link Release Command		Unicast or Multicast
TBD 96	Flow Management Talk-around direct communication	AAI-DC-DSA-CMD	Dynamic Service Addition Command		Unicast or Multicast
TBD 97	Flow Management Talk-around direct communication	AAI-DC-DSC-CMD	Dynamic Service Change Command		Unicast or Multicast
TBD 98	Flow Management Talk-around direct communication	AAI-DC-DSD-CMD	Dynamic Service Delete Command		Unicast or Multicast
TBD	Measurement	AAI-DC-MES-CMD	Measurement Command		Unicast or Multicast
TBD	Resource Management	AAI-DC-RCHG-CMD	Resource Change Command		Unicast or Multicast
TBD	Token Management	AAI-DC-TKN-ADV	Token Advertisement		Multicast
TBD 99	Resource allocation Talk-around direct communication	AAI-DC-RTS	Request to Send		Unicast or Multicast or broadcast
TBD 100	Resource allocation Talk-around direct communication	AAI-DC-CTS	Clear to Send		Unicast
TBD 101	MCS Change Talk-around direct communication	AAI-DC-MCHG-CMD	MCS Change Command		Unicast

Table 2629 - MAC Control messages

No.	Functional Areas	Message names	Message description	Security	Connection
102	Talk-around direct communication	AAI-DC-RELAY-ADV	Relay Advertisement		Broadcast
103	Talk-around direct communication	AAI-DC-RELAY-REQ	Relay Request		Unicast
104	Talk-around direct communication	AAI-DC-RELAY-RSP	Relay Response		Unicast
TBD 105	Forwarding MS List Talk-around direct communication	AAI-DC-MM-ADV	MS list Advertisement		Broadcast or multicast or unicast
TBD 106	Forwarding MS List Update Talk-around direct communication	AAI-DC-LU-REQ	MS List Update Request		Unicast
TBD 107	Forwarding MS List Update Talk-around direct communication	AAI-DC-LU-RSP	MS List Update Response		Unicast
TBD 108	BS-controlled HR-MS forwarding to network	AAI-FN-CONFIG-CMD	Forwarding to network configuration		Unicast or multicast
TBD 109	BS-controlled HR-MS forwarding to network	AAI-FN-RNG-ACK	Acknowledging successful receiving of ranging preamble by forwarding HR-MS		Broadcast (toward new HR-MS that is carrying out network entry through the forwarding HR-MS)
TBD 110	BS-controlled HR-MS forwarding to network	AAI-FN-RNG-REP	Forwarding HR-MS report to serving HR-BS/RS the reception	Encrypted/ICV	Unicast

Table 2629 - MAC Control messages

No.	Functional Areas	Message names	Message description	Security	Connection
TBD 111	<u>BS-controlled HR-MS forwarding to network</u>	<u>AAI-FN-RNG-FLU</u>	<u>HR-BS/RS selects one or group of HR-MS to follow-up with the ranging process of new HR-MS</u>	<u>Encrypted/ICV</u>	<u>Unicast or multicast</u>
TBD	<u>Forwarding MS List</u>	<u>AAI-DC-MM-ADV</u>	<u>MS list Advertisement</u>		<u>Broadcast or multicast or unicast</u>
TBD	<u>Forwarding MS List Update</u>	<u>AAI-DC-LU-REQ</u>	<u>MS List Update Request</u>		<u>Unicast</u>
TBD	<u>Forwarding MS List Update</u>	<u>AAI-DC-LU-RSP</u>	<u>MS List Update Response</u>		<u>Unicast</u>
TBD 112	<u>Standalone</u>	<u>AAI-SA-BPAG-ADV</u>	<u>Blind Page Advertisement Message</u>		<u>Broadcast</u>
TBD 113	<u>Standalone</u>	<u>AAI-SA-BPAG-ACK</u>	<u>Blind Page ACK message</u>		<u>Unicast</u>
TBD 114	<u>Multicast</u>	<u>AAI-HR-MG-IND</u>	<u>Multicast Group Indication Message</u>		<u>Broadcast</u>
TBD 115	<u>Multicast</u>	<u>AAI-HR-MT-IND</u>	<u>Multicast Traffic Indication Message</u>		<u>Broadcast or Multicast</u>

[-----End of Text Proposal-----]