

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Announcement of De-registered MS	
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Re:	Contribution to IEEE P802.16g Ad hoc group for restoring P802.16e/D4 Annex D to P802.16g	
Abstract	This contribution proposes a backbone message for announcement of de-registered with corresponding usage examples.	
Purpose	To be discussed in Legacy Messages Ad-Hoc, IEEE802.16g	
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Announcement of De-registered MS

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1. Introduction

In current IEEE802.16e, there are three backbone messages related to the information of MS, which are I-am-host-of message, MSS-info-request message, and MSS-info-response message. These are defined in IEEE 802.16e/D4.

When BS registers an MS, it is notified to neighbor BSs by I-am-host-of message. But there is no backbone communication to notify de-registration of MS. Consequently, neighbor BS shall remain information of the de-registered MS until they receive I-am-host-of message about the information of currently registered MS periodically transmitted from the Serving BS. And current I-am-host-of message is not defined well.

In this contribution, we propose a backbone message, which is modified and clarified the existing I-am-host-of message for notification of the de-registered MS. The message is sent by a serving BS to notify other BS that a certain MS is registered or de-registered with it. The message may be sent by a BS to notify the former BS of handover results. And the message shall be sent periodically.

Figure 1 is that an MS is de-registered from Serving BS when the MS request de-registration from the BS. And figure 2 is that an MS is de-registered from Serving BS after invited Ranging Retries exhausted during periodic ranging operation.

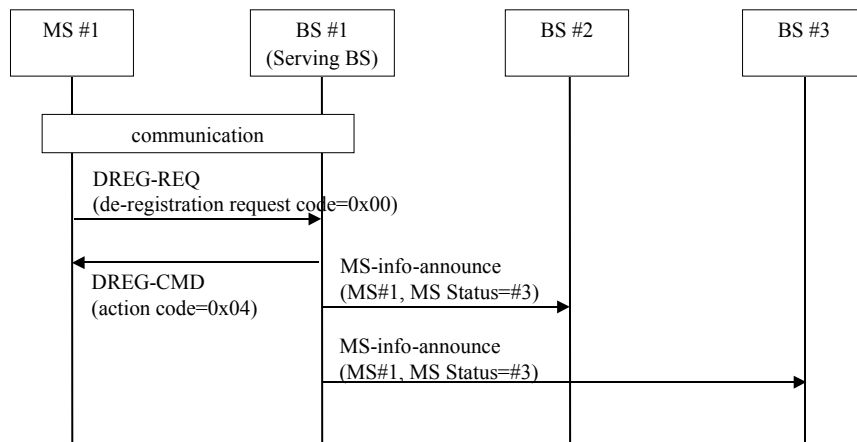


Fig. 1. Example de-registration by MS request

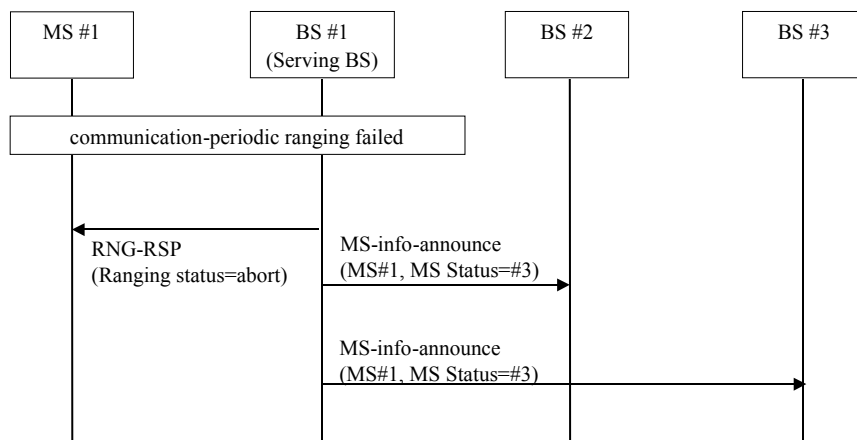


Fig. 2. Example de-registration during periodic ranging fail

2. Proposed Text Change

[Add new clause 14.5.10.xx, line 11, pp.14, IEEE802.16g-04/03r1]

14.5.10.xx MS-info-announce Message

This message is sent by a BS to notify other BS of MS current status information. BS shall transmit this message when an MS is registered or de-registered with the BS. The message may trigger a neighbor BS to request more information on the MS specified in this message. This message may be sent to notify the former Serving BS of handover results, and be transmitted periodically for an MS, providing that MS status value set to #3, 'Registered'. The message contains the following information,

Table xx MS-info-announce Message format

Field	Size	Notes
Global Header	152 bits	Refer to 14.5.10.nn Global Message Header
For (j=0; j<Num Records; j++) {		
MS unique identifier	48 bits	48-bit unique identifier used by MS on initial network entry
MS status	8 bits	#0: Network Entry #1: Successful Handover #2: Handover Failure #3: Registered #4: De-registered #5-7: reserved
}		
Security field	TBD	A means to authenticate this message

The following parameters shall be included in the MS-info-announce Message.

MS unique identifier 48-bit unique identifier used by MS on initial network entry

MS status

The MS status value indicates the status of the MS can expect from **the BS** #0: Network entry - MS entry completed.

- #1: Successful Handover - MS succeeded handover.
- #2: Handover Failure - MS failed handover.
- #3: Registered - MS is registered.
- #4: De-registered – MS is de-registered.
- #5-7: reserved.

Security field

A means to authenticate this message.

3. References

[1] IEEE802.16e/D6

[2] IEEE802.16g-04/03r1, "Baseline Document – P802.16g Management Plane Procedures and Services"