

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Optimization for the MOB-SCN-RSP message	
Date Submitted	2004-11-04	
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Re:	This is a response to a Call for Comments IEEE802.16e-04/xx on IEEE P802.16e-D5	
Abstract	This document contains suggestions to optimize the MOB-SCN-RSP message.	
Purpose	This document is submitted for review by 802.16e Working Group members	
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Optimization for the MOB-SCN-RSP message

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1. Background

In the current draft IEEE802.16e-D5, the BS shall send the MOB-SCN-RSP message with setting parameters to all zeros when it wants to deny scan request from the MSS. In that case, the BS shall include all parameters (e.g., Scan Duration, Start Frame, Interleaving interval, etc.) in the MOB-SCN-RSP message.

However, with a single-bit flag to indicate the approval for the scan request, the BS can shorten the MOB-SCN-RSP message and reduce 32 bits in the case of the disapproval of the MSS's scan request. Since there are already 2 reserved bits in the existing MOB-SCN-RSP message, we don't need additive bits to achieve this.

2. Proposed Remedy

1) Add the field of 'Scan_approved' in MOB-SCN-RSP to indicate whether the BS approves scan request of the MSS or not, line 47, page 70 :

Table 106h—MOB_SCN-RSP Message Format

Syntax	Size	Notes
MOB-SCN-RSP_Message_Format() {		
Management Message Type = 51	8 bits	
<u>Scan-approved</u>	<u>1 bit</u>	<u>0: Scan request denied</u> <u>1: Scan request approved</u>
<u>if(Scan-approved==0) {</u>		
<u>reserved</u>	<u>7 bits</u>	<u>Shall be set to zero.</u>
<u>}</u>		
<u>else {</u>		
Scan Duration	8 bits	in frames
Start Frame	4 bits	
Interleaving interval	8 bits	
Scan iteration	8 bits	
Report mode	2 bits	0b00 : no report 0b01 : periodic report 0b10 : event triggered report 0b11 : reserved
<u>reserved</u>	<u>6 bits</u>	<u>Shall be set to zero.</u>
Scan report period	8 bits	Available only when the value of Report mode is set to 0b01.
<u>reserved</u>	<u>1 bit</u>	<u>Shall be set to zero.</u>
<u>}</u>		
HMAC Tuple	21 bytes	See 11.1.2

}		
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2) Add the description for Scan-approved in MOB-SCN-RSP, line 10, page 71 :

The following parameters shall be included in the MOB_SCN-RSP message:

Scan-approved

Indicates whether the BS approves the MSS's scan request or not.

3) Modify the text in "6.3.20.1.2 MSS Scanning of neighbor BS" as follows , line 12 -16 and line 37 - 39, page 113:

Upon reception of this message, the BS shall respond with a MOB_SCN-RSP MAC Management message. The MOB_SCN-RSP MAC Management message shall either grant the requesting MSS a scanning interval or deny the request with Scan-approved. Scan-approved in MOB-SCN-RSP shall be set to '1' when the BS approves the MSS's scan request and allocates scanning interval to the MSS. A value of zero for ~~Duration~~ Scan-approved in MOB-SCN-RSP shall indicate the request for an allocation of scanning interval is denied.

The group of intervals is terminated at any time if the BS sends MOB_SCN-RSP message with ~~setting the parameters (Scan duration, Interleaving interval, and Scan iteration) to all zeros~~ Scan-approved set to zero.