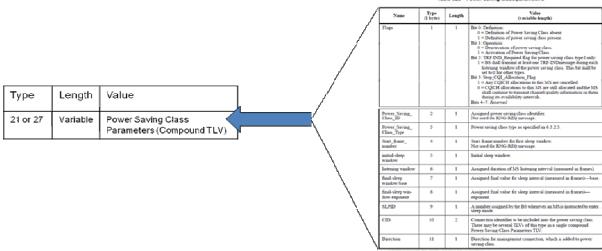
Project	IEEE 802.16 Broadband Wireless Access Working Group http://ieee802.org/16 >		
Title	United TLV encoding for PSC parameters in RNG-REQ/RSP		
Date Submitted	2008-03-19		
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	Brian Shim Samsung Electronics*	* <http: affiliationfaq.html="" faqs="" standards.ieee.org=""></http:>	
Re:	LB26b		
Abstract	This contribution proposes the united TLV encoding which can accommodate whole PSC parameters without Type and Length field in RNG-REQ/RSP message		
Purpose	Accept the proposed specification changes on IEEE P802.16Rev2/D3.		
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United TLV encoding for PSC parameters in RNG-REQ/RSP

Samsung Electronics

Problem description

When MS or BS includes PSC parameters TLV encoding in RNG-REQ/RSP message, most of the TLV encodings are included in Power Saving Class Parameters compound TLV encoding. In this case, Type and Length field are useless and meaningless any more. They are big overhead in RNG-REQ/RSP message which are transmitted on a burst with robust MCS level.



Proposed Changes

If we use the united TLV, we can reduce at least 32 bytes overhead(over-50% reduction) in case of PSC Type I. the united TLV has the same format as MOB_SLP-REQ/RSP (i.e. no missing parameters).

[At the end of table 550 on page 1078, line 18, define new TLV encoding(i.e. United TLV encoding) which includes only values of other TLV encodinsgs in table 550 without Type and Length field, as follows]

Table 623—Power saving class parameters					
Name	Type (1 byte)	Length	Vlaue (Variable-Length)		
Direction	11	1	Direction for management connection, which is added class.	ed to power saving	
United TLV encoding for Power Saving Class	ncoding for above TLV encoding over Saving Class				
<u>Parameters</u>			<u>Parameters</u>	<u>Bits</u>	
			<u>Operation</u>	1	
			<u>Definition</u>	1	
			Power Saving ClassID	<u>6</u>	
			If(Operation == 1) {		
			Start_Frame_Number	7_	
			Stop CQI Allocation Flag	1	
			1		
			If(Definition) {		
			Power_Saving Class Type	<u>2</u>	
			TRF-IND_Required	1	
			Traffic Triggered Wakening flag	1	
			Direction	<u>2</u>	
			MDHO/FBSS_Support	1	
			Initial-Sleep Window	<u>8</u>	
			<u>Listening-Window</u>	<u>8</u>	
			Final Sleep Window base	<u>10</u>	
			Final Sleep Window exponent	<u>3</u>	
			If(TRF-IND_Required == 1) {		
			SLPID	<u>10</u>	
			<u>Reserved</u>	<u>2</u>	
			1		
			Number_of_CIDs	<u>4</u>	
			For(i=0; i< Number_of_CIDs; i++) {		
			CID	<u>16</u>	

1	
If(MDHO/FBSS_Support == 1)	
MDHO/FBSS duration(s)	<u>3</u>
<u>Reserved</u>	1
1	
1	
Padding for byte alignment	<u>0 or 4</u>

References

[IEEE802.16-Rev2/D3]

IEEE Computer Society and IEEE Microwave Theory and Techniques Society, "DRAFT Standard for Local and Metropolitan Area Networks Part 16: Air Interface for Broadband Wireless Access Systems", P802.16Rev2/D3 (February 2008). Revision of IEEE Std 802.16-2004 and consolidates material from IEEE Std 802.16e-2005, IEEE Std 802.16-2004/Cor1-2005, IEEE Std 802.16f-2005 and IEEE Std802.16g-2007.