

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [Comment resolution related to clause 6.2]

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Source: [Il Soon Jang, Sang-Kyu Lim, Tae-Gyu Kang, Dae Ho Kim, You Jin Kim] Company [ETRI]

Address [138 Gajeongno, Yuseong-gu, Daejeon, 305-700]

Voice:[+82-42-860-5424], FAX: [+82-42-860-5218], E-Mail:[isjang@etri.re.kr]

Re: [Response to LB50 comments]

Abstract: [This document describes the comment resolution related to clause 6.2]

Purpose: [To resolve the LB technical comments]

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Comment resolution related to clause 6.2

Il Soon Jang
isjang@etri.re.kr
ETRI

11 CIDs

- 245, 246, 250, 255, 269, 294,
- 249, 249a, 252, 254a, 259

CID 245

CID	Name	Clause	Subclause	Page	Line	Type	Comment	Suggested Remedy
245	James Gilb	6	6.2	25	29	T	The PD-SAP and PLME-SAP are never used, never implemented, not able to be tested and are a waste of time.	Delete the PD-SAP and PLME-SAP from the figure and all the associated primitives in the following subclauses. This will greatly simplify the PHY Clause without affecting interoperability or functionality.

- PD-SAP and PLME-SAP define the interface parameters between PHY layer and upper layer (MAC sublayer).
- Subclause 6.2.1 PHY data service describes PD-SAP and Subclause 6.2.2 PHY management service describes PLME-SAP.
- Most of the standards have PD-SAP and PLME-SAP.
- **Recommendation/Instruction to editor**
 - CID 245 : Reject

CID 246

CID	Name	Clause	Subcla use	Page	Line	Type	Comment	SuggestedRemedy
246	James Gilb	6	6.2	25	43	T	There is no such thing as an RF-SAP. The PHY connects directly to the medium. Furthermore, the RF-SAP is not specified in the draft.	Delete the RF-SAP from the figure.

- RF-SAP is shown in Figure 19, but any description for RF-SAP is not shown in D1 draft.
- The comment is correct because VLC use the visible light instead of RF.
- We need the terminology, definition and description about something to replace RF-SAP.
- **Recommendation/Instruction to editor**
 - CID 246 : Accept in principle

CID 250

CID	Name	Clause	Subclause	Page	Line	Type	Comment	Suggested Remedy
250	David Cypher	6	6.2.1.2	27	12	T	The statement is not always true. It is true only when an acknowledgement is received from the peer. Otherwise there is no knowledge of whether the peer received the data. What is confirmed is transmission by the local PHY layer	Correct to make a true statement

- The commentator seems to misunderstand the PD-DATA.confirm primitive.
- PD-DATA.confirm primitive is not directly related to ACK.
- PD-DATA.confirm is a primitive that a Tx PHY notifies the upper layer of the event that the Tx PHY transmits some packet after Tx PHY transmits some packet without regard to ACK of a peer device.
- **Recommendation/Instruction to editor**
 - CID 250 : Reject

CID 255

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
255	Sridhar Rajagopal	6.2.1.3.1		28		T	aMaxPHYPacketSize	make the packet size dependent on the PHY type. Suggest 256 bytes for LR PHY

- We also agree that aMaxPacketSize of 64KB for all types of PHY is inefficient.
- However, we think that aMaxPacketSize of 256 bytes for LR PHY is too small.
- So it would be better that aMaxPacketSize for LR PHY type is determined to 1 KB.
- Table 24 need some changes.
 - PHY II = 64KB (keep as D1)
 - PHY I = 1KB (add)

CID 255 (cont.)

- **Recommendation/Instruction to editor**
 - CID 255 : Accept in principle

(After Change)

Constant	Description	Value
aMaxPHYPacketSize for PHY I	The maximum PSDU size (in octets) the PHY I shall be able to receive.	1 kB
aMaxPHYPacketSize for PHY II	The maximum PSDU size (in octets) the PHY II shall be able to receive.	64 kB
aTurnaroundTime	RX-to-TX or TX-to-RX maximum turnaround	zero symbol periods

CID 269

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
269	James Gilb	6	6.2.2.7.1	34	19	T	Change "Attribute specific" to be "As defined in Table x" with the correct cross reference.	Change as indicated

- This comment relates to PIBAttributeValue in table 16 (PLME-SET.request parameters).
- We need to change it as this comment if we want to describe it more in detail so that the users can know more easily.
- However, it would be better that we change “Attribute specific” into “**Attribute specific as defined in Table x**”, not “As defined in table x”.
- “Table x” in table 16 on page 34, table 17 on page 35, and table 18 on page 35 need to be changed into table 25.
- **Recommendation/Instruction to editor**
 - CID 269 : Accept

CID 294

CID	Name	Clause	Subclause	Page	Line	Type	Comment	Suggested Remedy
294	James Gilb	6	6.2.3	37	3	T	The PHY interface is not exposed and so there is no need to standardize the enumerations. Keeping the table will require keeping it in sync with the PLME SAP primitives, which can lead to errors.	Delete subclause 6.2.3.

- Table 20 is all of subclause 6.2.3 (PHY enumeration description).
- We have already discussed PHY interfaces, PD-SAP and PLME-SAP.
- The standard need their enumeration values.
- Subclause 6.2.1 describes PD-SAP and subclause 6.2.2 describes PLME-SAP.
- **Recommendation/Instruction to editor**
 - CID 294 : Reject

CID 249, 249a, 252, 254a, 259

CID	Name	laus	bclau	Page	Line	Type	Comment	Suggested Remedy
249	James Gilb	6	6.2.1	26	45	T	It is not possible for the PD-SAP (or the PLME-SAP for that matter) to constrain the actions of the next higher layer (the MAC in this instance). Thus "When generated" shall not be specified for .request and .response primitives.	Delete the "When generated" sections for all .request and .response primitives in the draft. A lower layer cannot specify the behavior of the upper layer. The SAP only specifies services provided by the lower layer.
249a	James Gilb	6	6.2.1	26	51	E	If you have followed me this far, you have deleted "Semantics of the primitive" and "When generated" (or for other primitives "Effect of receipt") leaving only one subclause per primitive. Because you are not allowed to have a x.y.z.1 unless there is an x.y.z.2, the last remaining subclause title needs to be deleted. This also solves the problem in which you have dozens of subclauses, all with the exact same title.	Delete the subclause title "When generated" for all .request and .response primitives.
252	James Gilb	6	6.2.1	27	40	T	It is not possible for the PD-SAP (or the PLME-SAP for that matter) to constrain the actions of the next higher layer (the MAC in this instance). Thus "Effect of receipt" shall not be specified for .indication and .confirm primitives.	Delete the "Effect of receipt" sections for all .indication and .confirm primitives in the draft. A lower layer cannot specify the behavior of the upper layer. The SAP only specifies services provided by the lower layer.
254a	James Gilb	6	6.2.1	27	33	E	If you have followed me this far, you have deleted "Semantics of the primitive" and "When generated" (or for other primitives "Effect of receipt") leaving only one subclause per primitive. Because you are not allowed to have a x.y.z.1 unless there is an x.y.z.2, the last remaining subclause title needs to be deleted. This also solves the problem in which you have dozens of subclauses, all with the exact same title.	Delete the subclause title "Effect of receipt" for all .indication and .confirm primitives.
259	James Gilb	6	6.2.2	30	49	T	This is a new one, "Appropriate usage"?	The PHY cannot restrict the MAC's behavior with the SAP, delete subclause 6.2.2.3.2.

CID 249, 249a, 252, 254a, 259 (cont.)

- These CIDs relate to .request and .confirm primitives.
- Summary of Comments and SuggestedRemedy
 - It is not possible for the PD-SAP (or the PLME-SAP) to constrain the actions of the next higher layer.
 - Thus "When generated" shall not be specified for .request and .response primitives. → Delete the "When generated" sections for all .request and .response primitives in the draft.
 - Thus "Effect of receipt" shall not be specified for .indication and .confirm primitives. → Delete the "Effect of receipt" sections for all .indication and .confirm primitives in the draft.
 - Delete "When generated" sections and "Effect of receipt" sections and the title of "Semantics of the primitive".

CID 249, 249a, 252, 254a, 259 (cont.)

- The descriptions which relate to PLME-SAP and PD-SAP in subclause 6.2 described on pages from 26 to 36 do not constrain the actions of the next higher layer, but describe only their general functions.
- **Recommendation/Instruction to editor**
 - CID 249, 249a, 252, 254a and 259 : Reject