

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

Submission Title: [Resolutions for the unsolved comments related to Subclause 6.2]

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Re: [Response to LB50 comments]

Abstract: [This document describes the resolutions for the unsolved comments related to Subclause 6.2]

Purpose: [Proposal to resolve unsolved comments related to Subclause 6.2]

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Resolutions for the unsolved comments related to Subclause 6.2

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20 CIDs

- There are 31 CIDs associated with subclauses 6.2.
- We have already resolved 11 CIDs on previous CC.
- So, the remained 20 CIDs still open.
- I'll try to resolve these 20 CIDs associated with subclause 6.2.
- These 20 CIDs are classified into 3 categories.
 - 251, 253, 261, 262, 263, 273, 276
 - 256, 279, 283, 284
 - 271, 277, 281, 286, 287, 288, 289, 290, 293

CID 251, 253

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
251	James Gilb	6	6.2.1.1	27	1	T	The action of the .confirm primitive should be described in that primitive's definition. Not here. When it is done here, there is a duplication of normative information plus the silly back reference in 6.1.2.1 to this subclause.	Move "When the PHY entity ... status of RX_ON or TRX_OFF, respectively." to 6.2.1.2, merging it with the text that was in the 6.2.1.2.2 subclause. This will prevent mistakes. (of course deleting the PD-SAP is a simpler and better idea.). Make that change here and in all the other primitives (essentially all have the reason codes defined in the .request instead of the .confirm.)
253	James Gilb	6	6.2.1.2.2	27	38	T	"The reasons .. described in 6.2.1.1.3" is silly. The reasons need to be defined in the .confirm primitive, not in the .request primitive.	Delete here and in all other locations in the primitives (there are quite a few).

- We need to discuss where to write the description or definition for confirm primitive parameter.
- **Recommendation/Instruction to editor**
 - In our opinion, this comment is correct.
 - We'd like to recommend that we accept this comment.

CID 251, 253: comment structure

CID 251, 253
 Comment: The action of the .confirm primitive should be described in that primitive's definition.
 So, move

- 6.2.x.1 xxx.request
 - 6.2.x.1.1 Semantics of the service primitive
 - 6.2.x.1.2 When generated
 - 6.2.x.1.3 Effect on receipt
 - ~~The full description or definition for confirm primitive parameters is described here.~~
- 6.2.x.2 xxx.confirm
 - 6.2.x.2.1 Semantics of the service primitive
 - 6.2.x.2.2 When generated
 - The full description or definition for confirm primitive parameters is described here.
 - ~~Need the full description or definition for confirm primitive parameters, but only refer to 6.2.x.1.3.~~
 - 6.2.x.2.3 Effect on receipt

The subclause which need the full description or the definition of confirm primitive parameters is this confirm subclauses, not request.
And the confirm subclause in D1 draft describes only reference of request subclause.
So, the comments means that move the full description or definition for confirm primitive parameter into confirm subclause.

CID 261, 262

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
261	David Cypher	6	6.2.2.4.2	31	50	T	Wrong reference	Change 6.2.2.6.3 to 6.2.2.3.3
262	R. Roberts	6.2.2.4.2		31		T	Incorrect reference	I believe the reference at the end of the paragraph should be 6.2.2.4.3 and not 6.2.2.6.3

- These comments are tightly coupled with previous CID 251 and 253.
- **Recommendation/Instruction to editor**
 - In our opinion, these comments are correct.
 - We'd like to recommend that we accept these comments (CID 261, 262) in principle.
 - However, if we accept CID 251 and 253 in previous slide, we do not need these suggested remedy no longer because the description or definition of confirm primitive parameter in request primitive subclause is already moved into confirm primitive subclause.

CID 273, 276

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
273	David Cypher	6	6.2.2.8.2	35	19	T	The statement that 6.2.2.8.3 contains fully described, is a false statement because it is not fully described there	Possibly wrong reference which should be 6.2.2.7.3
276	Clint Chaplin	6	6.2.2.8.2	35	17	T	(SY) "The reasons for these status values are fully described in subclause 6.2.2.8.3." Section 6.2.2.8.3 does not contain a full description.	Either change the reference to the subclause that does contain the full description, or add the full description to 6.2.2.8.3

- These comments are tightly coupled with previous CID 251 and 253.
- **Recommendation/Instruction to editor**
 - In our opinion, these comments are correct.
 - We'd like to recommend that we accept these comments (CID 273, 276) in principle.
 - However, if we accept CID 251 and 253 in previous slide, we do not need these suggested remedy no longer because the description or definition of confirm primitive parameter in request primitive subclause is already moved into confirm primitive subclause.

CID 263

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
263	James Gilb	6	6.2.2.5.3	32	44	T	"If the state change ... of the state of the PHY." should be in the .confirm primitive, not in the request.	Change "PHY to change" -> "PHY to attempt to change" and delete "If the state change ... of the state of the PHY" moving the information to 6.2.2.6. Make a similar change to all descriptions of the primitives.

- **Recommendation/Instruction to editor**
- 1st SuggestedRemedy
 - Change "PHY to change" to "PHY to attempt to change" (Page 32, line 43)
 - We need to discuss which one is better.
 - In our opinion, there is no difference between two expressions.
 - So we'd like to recommend that we accept this comment CID 263.
- 2nd SuggestedRemedy
 - Delete "If the state change ... of the state of the PHY"(Page 32, line 44) moving the information to 6.2.2.6
 - These comments are tightly coupled with previous CID 251 and 253.
 - In our opinion, this comment is correct.
 - We'd like to recommend that we accept this comment CID 263 in principle.
 - However, if we accept CID 251 and 253 in previous slide, we do not need this suggested remedy no longer because the description or definition of confirm primitive parameter in request primitive subclause is already moved into confirm primitive subclause.

CID 256, 279, 283, 284

CID	Name	Clause	Subclause	Page	Line	Type	Comment	Suggested Remedy
256	R. Roberts	6.6.2	Table 10	29		T	Delete last row	There are two comments against clauses 6.2.2.9 and 6.2.2.10 that indicate these two clauses should be deleted.
279	James Gilb	6	6.2.2.9	35	28	T	This primitive is a copy of the PIB set. If the intention is to use a PIB value, then the primitive in 6.2.2.7.	Delete the primitives 6.2.2.9 and 6.2.2.10 as they can be accomplished using 6.2.2.7 and 6.2.2.8
283	R. Roberts	6.2.2.9		35		T	Delete all of section and all its sub-sections	Section 6.2.2.9 and all the sub-clauses associated with 6.2.2.9 are not needed because the accessing of the PIB is adequately covered by the mechanisms presented in clauses 6.2.2.3, 6.2.2.4, 6.2.2.7 and 6.2.2.8
284	R. Roberts	6.2.2.10		35		T	Delete all of section and all its sub-sections	Section 6.2.2.10 and all the sub-clauses associated with 6.2.2.10 are not needed because the accessing of the PIB is adequately covered by the mechanisms presented in clauses 6.2.2.3, 6.2.2.4, 6.2.2.7 and 6.2.2.8

CID 256, 279, 283, 284 (cont.)

6.2.2.9 PLME-DIMMER.request

The PLME-DIMMER.request primitive requests that the PLME perform the dimmer function as defined in 6.9.6.1.

6.2.2.9.1 Semantics of the service primitive

The semantics of the PLME-DIMMER.request primitive is as

follows:

```
PLME-DIMMER.request (
  PIBAttribute
  PIBAttributeValue
)
```

6.2.2.7 PLME-SET.request

The PLME-SET.request primitive attempts to set the indicated PHY PIB attribute to the given value.

6.2.2.7.1 Semantics of the service primitive

The semantics of the PLME-SET.request primitive is as follows:

```
PLME-SET.request (
  PIBAttribute
  PIBAttributeValue
)
```

These comments means that these primitives are copies of the PIB set.

6.2.2.10 PLME-DIMMER.confirm

The PLME-DIMMER.confirm primitive reports the results of a dimming request.

6.2.2.10.1 Semantics of the service primitive

The semantics of the PLME-DIMMER.confirm primitive is as follows:

```
PLME-DIMMER.confirm (
  status
)
```

6.2.2.8 PLME-SET.confirm

The PLME-SET.confirm primitive reports the results of the attempt to set a PIB attribute.

6.2.2.8.1 Semantics of the service primitive

The semantics of the PLME-SET.confirm primitive is as follows:

```
PLME-SET.confirm (
  status,
  PIBAttribute
)
```

CID 256, 279, 283, 284 (cont.)

CID 256 means that delete the last row in table 10

Table 10—PLME-SAP primitives

PLME-SAP primitive	Request	Confirm
PLME-CCA	6.2.2.1	6.2.2.2
PLME-GET	6.2.2.3	6.2.2.4
PLME-SET-TRX-STATE	6.2.2.5	6.2.2.6
PLME-SET	6.2.2.7	6.2.2.8
PLME-DIMMER	6.2.2.9	6.2.2.10

CID 256, 279, 283, 284 (cont.)

- These suggested remedies which are related to CID 279, 283 and 284 mean that delete all of PLME-DIMMER primitives text because it can be accomplished using PLME-SET primitive and PLME-GET primitive.
- We also think that PLME-DIMMER primitive can be accomplished using PLME-SET primitive and PLME-GET primitive.
- If we accept these comments, CID 279, 283 and 284, we do not need the last row in table 10 any more, so CID 256 is resolved automatically
- **Recommendation/Instruction to editor**
 - We'd like to recommend that we accept CID 256, 279, 283 and 284.

CID 281

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
281	James Gilb	6	6.2.2.9.1	35	50	T	Change "Attribute specific" to be "As defined in Table x" with the correct cross reference.	Change as indicated

- This comment is related to table 18, PLME-DIMMER.request parameters.
- The suggested remedy means that change ‘table x’ in table 18 into ‘table 25’.
- Recommendation/Instruction to editor
 - The suggested remedy is correct.
 - However, we do not need to change the table x into table 25 because we have accept the previous CID 256 etc.
 - CID 256 etc means that delete all of 6.2.2.9 and 6.2.2.10.
 - So, we’d like to recommend that we accept CID 281 in principle but we need not to do as suggested remedy.

CID 281 (cont.)

Table 18—PLME-DIMMER.request parameters

Name	Type	Valid range	Description
PIBAttribute	Enumeration	See Table X	The identifier of the PIB attribute to set.
PIBAttributeValue	Various	Attribute specific	The value of the indicated PIB attribute to set.

CID 286, 288

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
286	Billy Verso, (affiliation DecaWave)	6	6.2.2.10.1	36	31	T	Dimmer confirm parameter description says it is result of a CCA?	Needs correct text inserted.
288	David Cypher	6	6.2.2.10.1	36	31	T	Table 19: Description is about CCA not dimmer	replace CCA with DIMMER.request

- These comments are related to table 19, PLME-DIMMER.confirm parameters.
- The suggested remedy means that change 'CCA' in table 19 into 'PLME-DIMMER.request'.
- Recommendation/Instruction to editor
 - The suggested remedies are correct.
 - However, we do not need to change the 'CCA' into 'PLME-DIMMER.request' because we have accept the previous CID 256 etc.
 - CID 256 etc means that delete all of 6.2.2.9 and 6.2.2.10.
 - So, we'd like to recommend that we accept CID 286, 288 in principle but we need not to do as suggested remedies.

CID 286, 288 (cont.)

Table 19—PLME-DIMMER.confirm parameters

Name	Type	Valid range	Description
status	Enumeration	SUCCESS, UNSUPPORTED_ATTRIBUTE, or INVALID_PARAMETER	The result of the request to perform a CCA.

CID 287

CID	Name	Clause	Subclause	Page	Line	Type	Comment	Suggested Remedy
287	David Cypher	6	6.2.2.10.1	36	31	T	Table 19: Valid range of enumerated values is not those used in 6.2.2.9.3	Replace all with COMPLETE

This CID 287 means that replace all of these valid range in table 19 with COMPLETE because valid range of enumerated values in table 19 is not those used in 6.2.2.9.3

6.2.2.9.3 Effect on receipt

If the transmitter is enabled on receipt of the PLME-DIMMER.request primitive, the PLME will cause the PHY to perform the required dimming function. When the PHY has completed the required dimming, the PLME will issue the PLME-DIMMER.confirm primitive with the status of COMPLETE.

Table 19—PLME-DIMMER.confirm parameters

Name	Type	Valid range	Description
status	Enumeration	SUCCESS, UNSUPPORTED_ATTRIBUTE, or INVALID_PARAMETER	The result of the request to perform a CCA.

CID 287 (cont.)

- **Recommendation/Instruction to editor**
 - We think that we'd better add the description of unexplained enumerated values in table 19 to 6.2.2.9.3 than replace all with COMPLETE.
 - We'd like to recommend that we accept this comment (CID 287) in principle.
 - However, we do not need these suggested remedy or our recommendation no longer if we have accept the CID 256 etc in slide #12.
 - CID 256 etc means that delete all of 6.2.2.9 and 6.2.2.10.

CID 289

CID	Name	Clause	Subclause	Page	Line	Type	Comment	Suggested Remedy
289	David Cypher	6	6.2.2.10.2	36	40	T	The statement is not true about fully described in 6.2.2.10.3 for it only contains SUCCESS. But this is contradicts what is stated in 6.2.2.9.3	It looks like no one knows what the dimmer is for and what it does and the text does not help another to learn either. Remove both 6.2.2.9 and 6.2.2.10.

- **This CID 289 is associated with subclause 6.2.2.10.3 and table 19.**
- **1st comment that the statement is not true about fully described in 6.2.2.10.3 because it only contains SUCCESS is correct.**
- **We can't make sense of 2nd comment that this is contradicts what is stated in 6.2.2.9.3.**

6.2.2.10.3 Effect on receipt

On receipt of the PLME-DIMMER.confirm primitive, the MLME is notified of the results of the dimming. If the DIMMER attempt was successful, the status parameter is set to SUCCESS. Otherwise, the status parameter will indicate the error.

Table 19—PLME-DIMMER.confirm parameters

Name	Type	Valid range	Description
status	Enumeration	SUCCESS, UNSUPPORTED_ATTRIBUTE, or INVALID_PARAMETER	The result of the request to perform a CCA.

CID 289 (cont.)

- **Recommendation/Instruction to editor**
 - We do not need these suggested remedy no longer if we have accept the CID 256 etc in slide #12.
 - CID 256 etc means that delete all of 6.2.2.9 and 6.2.2.10.

CID 290

CID	Name	Clau se	Subclau se	Page	Line	Type	Comment	SuggestedRemedy
290	Clint Chaplin	6	6.2.2.10.2	36	40	T	(SY) "The reasons for these status values are fully described in subclause 6.2.2.10.3." Section 6.2.2.10.3 does not contain a full description.	Either change the reference to the subclause that does contain the full description, or add the full description to 6.2.2.10.3

- **This CID 290 is associated with subclauses 6.2.2.10.2 and 6.2.2.10.3.**
- **This comment means that “The reason for these status values are fully described in 6.2.2.10.3” but actually subclause 6.2.2.10.3 does not have fully description.**
- **So the suggested remedy means that either change the reference to the subclause that does contain the full description, or add the full description to 6.2.2.10.3**

6.2.2.10.2 When generated

The PLME-DIMMER.confirm primitive is generated by the PLME and issued to its MLME in response to a PLME-DIMMER.request primitive. The PLME-DIMMER.confirm primitive will return a status of SUCCESS, indicating a successful dimming. The reasons for these status values are **fully described in 6.2.2.10.3**.

6.2.2.10.3 Effect on receipt

On receipt of the PLME-DIMMER.confirm primitive, the MLME is notified of the results of the dimming. If the DIMMER attempt was successful, the status parameter is set to SUCCESS. Otherwise, the status parameter will indicate the error.

CID 290 (cont.)

- **Recommendation/Instruction to editor**
 - We think that CID 290 is correct.
 - However, we do not need these suggested remedy no **longer if we have** accept the CID 256 etc in slide #12.
 - CID 256 etc means that delete all of 6.2.2.9 and 6.2.2.10.

CID 293

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
293	David Cypher	6	6.2.3	37	30	T	Table 20: missing COMPLETE as stated in 6.2.2.9.3 page 36, line 10	Add row with COMPLETE

- **Recommendation/Instruction to editor**
 - We think that CID 293 is correct.
 - However, we do not need COMPLETE enumeration value in table 20 no longer if we have accept the CID 256 etc in slide #12.
 - CID 256 etc means that delete all of 6.2.2.9 and 6.2.2.10.

CID 293 (cont.)

- This CID 293 is associated with table 20 in clause 6.2.3 and subclause 6.2.2.9.3.
- This comment means that **COMPLETE** is shown in subclause 6.2.2.9.3 but enumeration in table 20 does not include **COMPLETE**.
- So the suggested remedy means that add enumeration value of **COMPLETE** to table 20.

Table 20—PHY enumerations description

Enumeration	Value	Description
BUSY	0x00	The CCA attempt has detected a busy channel.
BUSY_RX	0x01	The transceiver is asked to change its state while receiving.
BUSY_TX	0x02	The transceiver is asked to change its state while transmitting.
FORCE_TRX_OFF	0x03	The transceiver is to be switched off.
IDLE	0x04	The CCA attempt has detected an idel channel.
INVALID_PARAMETER	0x05	A SET/GET request was issued with a parameter in the primitive that is out of the valid range.
RX_ON	0x06	The transceiver is in, or is to be configured into, the receiver enabled state.
SUCCESS	0x07	A SET/GET, an ED operation, or a transceiver state change was successful.
TRX_OFF	0x08	The transceiver is in, or is to be configured into, the transceiver disabled state.
TX_ON	0x09	The transceiver is in, or is to be configured into, the transmitter enabled state.
UNSUPPORTED_ATTRIBUTE	0x0a	A SET/GET request was issued with the identifier of an attribute that is not supported.

6.2.2.9.3 Effect on receipt

If the transmitter is enabled on receipt of the PLME-DIMMER.request primitive, the PLME will cause the PHY to perform the required dimming function. When the PHY has completed the required dimming, the PLME will issue the PLME-DIMMER.confirm primitive with the status of **COMPLETE**.

CID 271

CID	Name	Clause	Subclause	Page	Line	Type	Comment	SuggestedRemedy
271	Billy Verso, (affiliation DecaWave)	6	6.2.2.9.1	35	35	T	PLME-DIMMER.request parameters are just copy of PLME-SET.request	Define parameter(s) to select the required dimming.

- **Recommendation/Instruction to editor**

- So we'd like to recommend that we reject this CID 271 because DIMMER parameter is already shown in table 25.

CID 271 (cont.)

This CID 271 is associated with the text and table 18 in 6.2.2.9.1 and table 25 in 6.5.2.

This comment means that add dimmer parameter(s) to select the required dimming to table 18 and 6.2.2.9.1, but actually these parameters are already shown in table 25.

6.2.2.9.1 Semantics of the service primitive

The semantics of the PLME-DIMMER.request primitive is as follows:

```
PLME-DIMMER.request (
  PIBAttribute
  PIBAttributeValue
)
```

Table 18—PLME-DIMMER.request parameters

Name	Type	Valid range	Description
PIBAttribute	Enumeration	See Table X	The identifier of the PIB attribute to set.
PIBAttributeValue	Various	Attribute specific	The value of the indicated PIB attribute to set.

Table 25—PHY PIB attributes

Attribute	Identifier	Type	Range	Description
phyCurrentChannel	0x00	Integer	0-26	The RF channel to use for all following transmissions and receptions (see 6.1.4).
phyChannelsSupported	0x01	Bitmap	See description	The 5 most significant bits (MSBs) (b27,... , b31) of phyChannelsSupported shall be reserved and set to 0, and the 27 LSBs (b0, b1, ... b26) shall indicate the status (1=available, 0=unavailable) for each of the 27 valid channels (bk shall indicate the status of channel k as in 6.1.2).
phyCCAMode	0x02	Integer	1-3	The CCA mode (see 6.9.5)
phyDim	0x03	Integer	0-100	0 is fully dimmed and 100 is no dimming

CID 277

CID	Name	Clau se	Subclau se	Page	Line	Type	Comment	SuggestedRemedy
277	Clint Chaplin	6	6.2.2.9.1	35	35	T	(SY) The parameters given here in this subclause are not the correct parameters for this primitive. Both the function prototype and Table 18 are incorrect	Put the right paramters in the function prototype and Table 18

- **Recommendation/Instruction to editor**

- So we'd like to recommend that we reject this CID 277 because DIMMER parameter is already shown in table 25.

CID 277 (cont.)

This CID 277 is associated with the text and table 18 in 6.2.2.9.1 and table 25 in 6.5.2.

The comment means that the parameters given in this subclause 6.2.2.9.1 are not the correct parameters for this dimmer request primitive. Both the function prototype and Table 18 are incorrect

However, actually dimmer parameter is shown in PIBAttribute parameter in table 25 so we don't need modification of the function prototype and table 18.

6.2.2.9.1 Semantics of the service primitive

The semantics of the PLME-DIMMER.request primitive is as follows:

```
PLME-DIMMER.request (
    PIBAttribute
    PIBAttributeValue
)
```

Table 18—PLME-DIMMER.request parameters

Name	Type	Valid range	Description
PIBAttribute	Enumeration	See Table X	The identifier of the PIB attribute to set.
PIBAttributeValue	Various	Attribute specific	The value of the indicated PIB attribute to set.

Table 25—PHY PIB attributes

Attribute	Identifier	Type	Range	Description
phyCurrentChannel	0x00	Integer	0-26	The RF channel to use for all following transmissions and receptions (see 6.1.4).
phyChannelsSupported	0x01	Bitmap	See description	The 5 most significant bits (MSBs) (b27,... , b31) of phyChannelsSupported shall be reserved and set to 0, and the 27 LSBs (b0, b1, ... b26) shall indicate the status (1=available, 0=unavailable) for each of the 27 valid channels (bk shall indicate the status of channel k as in 6.1.2).
phyCCAMode	0x02	Integer	1-3	The CCA mode (see 6.9.5)
phyDim	0x03	Integer	0-100	0 is fully dimmed and 100 is no dimming