**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **Proposed Resolutions for Miscellaneous Comments CIDs #** **R16, R18, R37, R41, R42, R75, R80, R104, R113, R161, R164** |
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| Re: | 802.15.10 Consolidated Comment Entry Form, CIDs # R16, R18, R37, R41, R42, R75, R80, R104, R113, R161, R164 |
| Abstract | Provides a proposed resolution to CIDs # R16, R18, R37, R41, R42, R75, R81, R104, R113, R161, R164 |
| Purpose | To be used by the technical editor to apply the necessary changes to the draft to resolve CIDs # R16, R18, R37, R41, R42, R75, R80, R104, R113, R161, R164 |
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**Comments #** **R16, R18, R37, R41, R42, R75, R80, R104, R113, R161, R164**

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| --- | --- | --- | --- | --- | --- |
| CID | Page | Sub-clause | Line # | Comment | Proposed Change |
| R16 | 3 | 3.1 | 44 | Is a mesh root restricted to enabling access to just one entity? | Explain why, or modify definition |
| R18 | 3 | 3.1 | 50 | mesh tree providing connectivity | connectivity to what? |
| R37 | 10 | 4.3 | 38 | "A mesh tree is organized into a hierarchical mesh tree" | Circular characterization <unnecessary for a tree> |
| R41 | 10 | 4.3 | 52 | is allowed by the mesh root | Explain motivation for the restriction |
| R42 | 10 | 4.3 | 52 | is allowed by the mesh root | Allow device to decide for itself |
| R75 | 21 | 5.2.1 | 35 | Section cross-reference needed for discussion | section 5.4.1.4 |
| R80 | 23 | 5.2.1 | 51 | 'N' conflicts with rows 9 and 10 of table 3 | Pick new variable for one of the 'N's |
| R104 | 34 | 5.3.3 | 14 | What reasons are NOT good reasons for recovery? | Give some examples, or reword sentence. |
| R113 | 39 | 5.4.1.4 | 15 | "E2E Retry Limit are set by the device forwarding the aggregated frame" | This makes the individual payloads NOT E2E. |
| R161 | 53 | 6.2.1.1 | 25 | "backhaul" is undefined | Create definition (or re-word) |
| R164 | 53 | 6.2.1.1 | 42 | Reason for prohibiting brother routing unclear. | Delete field in Figure 30, and text on line 42 |

**Resolution: AiP**

**CIDs R16, R18:** Definition for mesh root should allow for connectivity to one or more services.

* ***Replace definition of mesh root as follows:***

“Device with the depth 0 in a L2R mesh providing access to a service. It may act as a gateway connecting to one or more external services.”

**CID R37**: Statement is redundant and amounts to a circular definition.

* ***Modify first sentence on line 37 of page 10 as follows:***

A mesh ~~tree~~ is organized into a hierarch~~ical~~y ~~mesh tree~~.

**CIDs R41, R42:** The mesh root does not need to control the use of brother routing. Instead, brother routing may be prohibited by the device which originated a data frame, if the frame requires urgent attention and must be routed by the shortest path route. The device’s higher layer protocols may optionally prohibit brother routing for all frames by including the BR\_prohibited parameter in the L2RLME-JOIN-TREE primitive.

* ***Modify the following phrase from last sentence on line 52 of page 10:***

“if brother routing is allowed by ~~the mesh root~~ the device originating the frame.”

In clause 5.2.1 (L2R mesh tree construction)

* ***Delete the “Brother routing” row of Table 1on page 21***.

In clause 5.2.3.1 Hop-by-hop US route establishment , modify the sentence on lines 50-51 as follows:

* ***The use of brother routing is indicated by the ~~Brother Routing~~ BR\_prohibited field in the Descriptor field of the ~~TC IE~~ L2R Routing IE.***

In clause 6.2.1.1 Descriptor field for L2R-D IE

* ***Delete the Brother Routing bit (i.e., bit 7) and renumber the following bits in order to enlarge the field of Reserved bits***
* ***Delete the description for the Brother Routing bit on lines 42-43***.

In clause 6.2.10.1 L2R Routing IE, modify Figure 57 as follows:

* ***Add a new bit field named “BR\_prohibited” to be bit #13. Relabel the field of reserved bits to be 14-15. Note: bit 12 was previously erroneously included as reserved.***

On page 69, add another paragraph at the end of clause 6.2.10.1 as follows:

* ***If bit 13 (“BR\_prohibited”) is set to one, brother routing is prohibited for this data frame.***

In clause 7.1.1.2 L2RMLE-SCAN.confirm

* ***Delete the Brother Routing field from Table 15 on page 77, lines 10-11.***

In clause 7.1.1.3 (L2RLME-TREE-START.request)

* ***Delete the Brother Routing parameter on page 78, line 46.***
* ***Delete the row for Brother Routing in Table 18 on lines 13-18.***

In clause 7.1.1.7 L2RLME-JOIN-TREE.request

* ***Add a new parameter “BR\_prohibited” to the list of parameters for the primitive.***
* ***Add a new row to Table 22:***

|  |  |  |  |
| --- | --- | --- | --- |
| BR\_prohibited | Boolean | True / False | Determines whether brother routing is to be prohibited for all data frames |

In clause 7.2.1.1 L2R-DATA.request

* ***Add a new parameter “BR\_prohibited” to the list of parameters for the L2R-DATA.request primitive.***
* ***Add a new row to Table 31:***

|  |  |  |  |
| --- | --- | --- | --- |
| BR\_prohibited | Boolean | True / False | Determines whether brother routing is to be prohibited for this data frame. The higher layer sets BR\_prohibited to true if the frame requires urgent attention and must be routed by the shortest path route. The higher layer sets BR\_prohibited to true for every data frame if the BR\_prohibited parameter was set to TRUE when the device initially joined the tree (see clause 7.1.1.7) |

**CID R80:** The use of variable name 'N' conflicts with rows 9 and 10 of table 3.

* ***Modify contents of the first cell on line 35 of page 23 as follows:***

Number of metrics ~~N~~M

**CID R104:** There is no need to illustrate the reasons for data recovery; to do so could be erroneously interpreted as listing all such reasons.

* ***Delete the following phrase from last sentence on line 14 of page 34:***

“due to reasons such as an empty NT or power outage”.

**CID R113:** The mechanism for frame aggregation causes the retry limit to no longer be end-to-end. This suggests renaming the limit to simply be a “Retry Limit”

* ***Replace “E2E Retry Limit” by “Retry Limit” throughout the document.***

**CID R161**: The term backhaul should be deleted.

* ***In the definition for direct connection*** ***in section 3.1, replace “backhaul” by “external network”.***
* ***On page 53, lines 24-25, replace “the mesh root is connected to the PAN coordinator either through a backhaul or by being in the same device as the PAN coordinator” by “the mesh root has a direct connection to the PAN coordinator”***
* ***On page 55, lines 45-46, replace “the mesh root is connected to the PAN coordinator either through a backhaul or by being in the same device as the PAN coordinator” by “the mesh root has a direct connection to the PAN coordinator”***

**CID R164:** Reason for prohibiting brother routing unclear.

* ***Delete the line: “When the Brother Routing field is set to 1, routing through a brother is allowed. Otherwise, routing through a brother is prohibited. Delete Bit 7 “for Brother Routing” in Figure 30***