**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 comment resolution for CID #180 of LB104** |
| Date Submitted | 25 May 2015 |
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| Re: | 802.15.10 Consolidated Comment Entry Form, CID #180 |
| Abstract | Provides a proposed resolution to CID #180 |
| Purpose | To be used by the technical editor to apply the necessary changes to the draft to resolve CID #180 |
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**Comment #180**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Commenter** | **Page** | **Clause** | **Line** | **Comment** | **Proposed change** |
| Tero Kivinien | 23 | 5.2.1 | 5 | As neighbor can have both short and extended address, it would be better to store both. i.e. it might send some packets using short address, and might also send some other packets using extended address. Split the Neighbor address fields to two entries, Neighbor short address and Neighbor extended address. Also in normal case we do have separate entry telling the type of the address if only one of them is present. |  |

**Resolution: AiP**

* ***Modify the semantics of the L2RLME-TREE-START.request primitive as follows:***

L2RLME-TREE-START.r.equest (

AddressingMode,

DSRouteRequired,

StoringMode,

OnDemandP2PRouteDiscovery,

PathToRoot,

SecurityMode,

MCO,

DataAggregation,

DAggBufferingTime,

MulticastSubscriptionInRAIE,

BrotherRouting,

NLEOperation,

AddrMode,

PANCoordConnection

)

* ***Insert the following row as the first row of Table 18:***

|  |  |  |  |
| --- | --- | --- | --- |
| AddressingMode | Enumeration | SHORT, EXTENDED | The address mode to be used in the L2R mesh tree |

* ***Modify the semantics of the L2RLME-JOIN-TREE.confirm primitive as follows:***

L2RLME-JOIN-TREE.confirm (

 AddressingMode,

Status

)

* ***Insert the following row as the first row of Table 23:***

|  |  |  |  |
| --- | --- | --- | --- |
| AddressingMode | Enumeration | SHORT, EXTENDED | The address mode used in the L2R mesh tree |

* ***Modify the semantics of the L2R-DATA.request primitive as follows:***

L2R-DATA.request (

~~OrgnSrcAddrMode,~~

OrgnSrcPanId,

~~FnlDestAddrMode,~~

FnlDestPanId,

FnlDestAddr,

PANBroadcast,

L2RData,

L2RDataHandle,

SecurityLevel,

KeyIdMode,

KeySource,

KeyIndex,

EntityID,

L2RReTx,

DelayCritical,

GuaranteedTx,

DataAgg,

TTL,

RL,

E2E AR

)

* ***Remove the OrgnSrcAddrMode and FnlDestAddrMode rows from Table 31.***
* ***Modify the semantics of the L2R-DATA.request primitive as follows:***

L2R-DATA.indication (

 OrgnSrcPANId,

 OrgnSrcAddr,

 FnlDstPANId

 FnlDstAddr,

 L2RData,

 SecurityLevel,,

 KeyIdMode,

 KeySource,

 KeyIndex

 )

* ***Remove the OrgnSrcAddrMode and FnlDestAddrMode rows from Table 33.***
* ***Insert the following text at the end of the clause 5.1.1.1***

A unique address mode should be used in the L2R mesh tree, set by the L2R mesh root as indicated by the AddressingMode in the L2RLME-TREE-START.request primitive. If short addressing is to be used in a L2R mesh tree and is not managed by a higher layer, the short addresses should be managed according to the process described in 5.1.2.5 and the corresponding L2R mesh root should have a direct connection with the PAN coordinator.

The use of two addressing modes within the same L2R mesh tree may require a mapping between the short addresses and the EUI-64 that is out of the scope of this document.

* ***Insert the following text at the end of the clause 5.1.2.1***

If short addressing is used in the L2R mesh tree found and the device does not have a short address assigned yet and short address assignment is not managed by a higher layer, the device should perform to the short address assignment procedure described in 5.1.2.5.

* ***Modify Figure 33 (TC IE Descriptor) as follows:***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bits: 0** | **1** |  | **2** | **3** | **4-7** | **8** | **9** | **10-15** |
| Short Descriptor | Metrics Present  |  | MCO | PAN Coord Connection  | Reserved  | Path to Root Present | DS Route Required | Reserved |

* ***Delete the 4th paragraph of clause 6.2.2.1***
* ***Modify Figure 43 as follows:***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bits: 0-10** | **11-14** | **15** |  | **16-23** | **Octets: 1** | **Variable** | **…** | **0/Variable** |
| Length | Sub-ID | Type = 1 |  | Number of Neighbors | NLM IE Interval | Neighbor Metric Container 1 | … | Neighbor Metric Container N |

* ***Modify Figure 44 as follows:***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Bits: 0-3** |  | **4-7** | **Octets: 2/8** | **Variable** | **…** | **Variable** |
| Number of Metrics |  | Reserved | Neighbor Address | Link Metric 1 | … | Link Metric N |

* ***Delete the third paragraph of clause 6.2.5.4***
* ***Modify Figure 47 (RA IE descriptor) as follows:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bits: 0** | **1** |  |  |  | **2-7** |
| MCO | Multicast Subscription Present |  |  |  | Reserved |

* ***Delete the last three paragraphs of clause 6.2.6.1***
* ***Modify clause 6.2.6.11 as follows:***

The Intermediate Address List field is formatted as illustrated in Figure 49.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2/8** | **…** |  | **0/2/8** |
|  | Intermediate Hop Address 1 | … |  | Intermediate Hop Address N |

Figure 49—Format of the Intermediate Address List in the RA IE

|  |  |
| --- | --- |
|  |  |
|  |  |

* ***Modify Figure 53(P2P-RQ IE) as follows:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bits: 0** | **1** |  |  |  | **2-7** |
| Request Direct Response | MCO |  |  |  | Reserved |

* ***Delete the last three paragraphs of clause 6.2.8.1***
* ***Modify Figure 55 as follows:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bits: 0** |  |  |  | **1-7** |
| MCO |  |  |  | Reserved |

As a result of the resolution of CID 342, 345 in document 447, the MCO flag is also deleted. 🡺 the Descriptor field is not needed anymore in the Figure 54.

* ***Delete clause 6.2.9.1***
* ***Delete the last three paragraphs of clause 6.2.9.1***
* ***Modify Figure 57 as follows:***

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bits:0** | **1** | **2** | **3** | **4** | **5** |  |  |  |  | **6-7** | **8** | **9-15** |
| Data Aggregation | Source Routing | MCO | L2R Retransmission | Delay Critical | Guaranteed Transmission |  |  |  |  | MAC AR Management | E2E AR | Reserved |

* ***Since MCO has been deleted, the remaining flags use 7 bits and the second octet of the Descriptor is not needed anymore***
* ***Delete the 8th to 11th paragraphs of clause 6.2.10.1***
* ***Modify clause 6.2.13 as follows:***

The DAgg IE is used in data frame and formatted as illustrated in Figure 61.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bits: 0-7** | **8-14** | **15** | **16-19** | **20-23** | **Octets: 2/8** | **2** | **1** | **...** | **2/8** | **2** | **1** |
| Length | Sub-ID | Type = 0 | Number of Aggregated Frames  | Reserved | Source Address 1 | LSN 1 | Aggregated Frame Length 1 | … | Source Address N | LSN N | Aggregated Frame Length N |

**Figure 61—Format of the DAgg IE**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

The Number of Aggregated Frames field indicates the number of data frames aggregated and being currently forwarded.

The Source Address *i (i = 1... N, N: number of aggregated frames)* field contains the address of the source of the *ith* aggregated frame.

The LSN *i* field contains the LSN of the *ith* aggregated frame.

The Aggregated Frame Length *i* field indicates the length of the *ith* aggregated frame.