**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 Resolutions for CID 394** | |
| Date Submitted | 13 July 2015 | |
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| Re: | Proposed comment resolutions related to the 802.15.10 Consolidated Comment Entry Form, CID 125, 137, 130, 147, 148 | |
| Abstract | This document provides a proposed comment resolutions for the comments which are related to the security section of D1 of 802.15.10 | |
| Purpose | To propose | |
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**Comment #394**

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| **Commenter** | **Page** | **Clause** | **Line** | **Comment** | **Proposed change** |
| Tero Kivinen | 60 | 6.2.5.1 | 34 | NLM IE is long nested IE, but it is sent in the EB frames. Are we really going to be sending EBs which are longer than 127 octets? I would say it would be better to specify the NLM IE so that it sends subset of the NLM information over multiple EB frames and then the length of individual NLM IE could be < 127 octets, meaning it could use short nested IE format. | i.e. remove the Address Mode Present, and make Number of Neighbors field shorter, for example to be only 4 bits long (allowing max of 16 neighbors in one NLM IE file). Use the rest of the octet as NLM IE part number (max 16 parts).  Shortest neighbor metric info would be 1+2+1+1 = 5 octets, meaning for 16 neighbors that would mean 80 bytes in the EB. For neighbors with extended addresses, and and 4 octet metric the length would be 14 bytes, meaning that one EB could probably only contain 6-8 of them. For 16 parts each having maximum of 16 neighbors would mean we can still give metrics for 256 neighbors over 16 EBs. |

**Resolution: AiP**

Delete the Address Mode Present field, add NLM IE part number field and change the long nested IE format to short. Also add the NLM IE Number of parts field.

* ***Modify Figure 43 as follows:***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bits:0-~~10~~7** | **~~11~~8-14** | **15** | **~~16~~** | **~~17-23~~16-23** | **24-29** | **30-31** | **Octet:1** | **Variable** | **…** | **Variable** |
| Length | Sub-ID | Type=~~1~~0 | ~~Address Mode Present~~ | Number of Neighobrs | Number of Containers | Reserved | NLM IE Interval | Neighbor Metric Container 1 | … | Neighbor Metric Container N |

* Figure 43-Format of the NLM IE

NLM IE is sent in EB frames to announce a neighbor metric to the neighbors. The neighbor metrics can be carried by a single NLM IE or multiple NLM IEs.

* ***Delete the clause 6.2.5.1 and add new clause after 6.2.5.2 as follows:***

**~~6.2.5.1 Address Mode Present field~~**

~~When the Address Mode Present field is set to 1, the Address Mode field is present in the Neighbor Metric Container fields. Otherwise, the Address Mode field is omitted and only short addresses are used.~~

**6.2.5.~~2~~1 Number of Neighbors field**

~~The Number of Neighbors field indicates the number of neighbors whose metrics are included in the NLM IE.~~

The Number of Neighbors field indicates how many neighbors are stored in the NT of the originator of the frame by which NLM IE is carried.

**6.2.5.2 Number of Containers field**

The Number of Containers field indicates how many containers are in the NLM IE.