**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 3013, 3036, 3038 from LB116** | |
| Date Submitted | 14 March 2016 | |
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| Re: | 802.15.10 Consolidated Comment Entry Form, CID 3013, 3036, 3038 | |
| Abstract | Provides a proposed resolution to CID 3013, 3036, 3038 | |
| Purpose | To be used by the technical editor to apply the necessary changes to the draft to resolve CID 3013, 3036, 3038 | |
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**Comments**

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| --- | --- | --- | --- | --- | --- |
| **Commenter** | **Page** | **Clause** | **Line** | **Comment** | **Proposed change** |
| Don Sturek | 11 | 5.1.1.1 | 51 | I still don't understand how short addressing can be used, particularly in the TMCTP. Allowing the mesh root not be a PAN Coordinator, having no PAN ID information in the IE's, even the AA IE won't be of help if there is not something in the PAN coordinators to help assign short addresses across PANs | Either remove the short address feature, or remove the TMCTP feature or else clearly explain how this works especially in a topology where the mesh root is not a PAN coordinator. |
| Don Sturek | 21 | 5.1.2.5 | 27 | In the case where the mesh root is not the DC, I see the PAN DC setting but I have no idea how this works. If the PAN coordinator is actually not the mesh root and not particpating in the particular mesh, how exactly do you get it to alloate short addresses for these devices? | Either state that the AA feature only works where the mesh root is the PAN coordinator or else describe how you get these addresses allocated via AA. Stating that a higher layer application running AA must be present in such a situation would address it (though seems odd since you would wonder why it is just not the mesh root to start with). |
| Don Sturek | 21 | 5.1.2.5 | 37 | I think this statement is telling me that short addresses cannot be used in a TMCTP but I am not clear on that. I was not sure what ".. The L2R mesh" was (since elsewhere there is a description of multiple mesh networks operating in the same vacinity). | Clarify in some central place exactly where short addresses are allowed and where they are not. I don't think the description of the optional AA service is a great place for that by the way. |

**Resolution: Revise**

As suggested by the proposed change in CID 3038, the use of short addresses is clarified in a central place in the functional overview clause.

* ***Create a subclause 4.4.1 “L2R mesh and routing” with the current content of 4.4***
* ***Insert a new subclause at the end of 4.4 as follows***

**4.4.2 Addressing modes**

This document specifies the use of short addresses and EUI-64 addresses as found in Table 1.

**Table 1 – Addressing mode usage**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Routing mode of operation** | **Network type** | | | |
| **PAN (1 or more meshes)** | | **SSPAN (1 mesh)** | **TMCTP (1 mesh)** |
| **Unicast (US/DS/P2P)** | Mesh with PanC DC | Mesh without PanC DC | Short addressing or EUI-64 | EUI-64 |
| Short addressing OR EUI-64 | EUI-64 |
| **Multicast** | Short addressing (0xff00 to 0xfffd) | | (64-bit broadcast address  OR  short broadcast address) flooding and higher layer filtering | 64-bit broadcast address flooding and higher layer filtering |
| **Broadcast** | Short addressing OR 64-bit broadcast address | | | 64-bit broadcast address |

* ***Delete this sentence in the second paragraph of 5.1.2.5:***

In this case, short AA is out of the scope of this document.

* ***Add a description of all addressing mode usage in the normative section consistent with Table 1 as follows***
* ***Insert the following text after the first paragraph in 5.4.1***

If the L2R mesh has a PanC DC or if the PAN is an SSPAN, unicast routing may use either short addresses or EUI-64 addresses depending on the addressing mode used by the mesh root. Otherwise, the EUI-64 addresses are used.

* ***Insert the following text after the first sentence of 5.4.1.3***

In this case, routing is performed using EUI-64 addresses.

* ***Insert the following text after the first paragraph in 5.4.2***

In an SSPAN, multicast routing uses either the short broadcast address or the 64-bit broadcast address depending on the addressing mode used in the SL2R mesh. Multicast frames are treated as broadcast frames by the L2R sublayer and are filtered by higher layers.

In a TMCTP, multicast routing uses the 64-bit broadcast address. Multicast frames are treated as broadcast frames by the L2R sublayer and are filtered by higher layers.