**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 2294 from LB113** | |
| Date Submitted | 18 January 2016 | |
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| Re: | 802.15.10 Consolidated Comment Entry Form, CID 2294 | |
| Abstract | Provides a proposed resolution to CID 2294 | |
| Purpose | To be used by the technical editor to apply the necessary changes to the draft to resolve CID 2294 | |
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**Comments**

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| **Commenter** | **Page** | **Clause** | **Line** | **Comment** | **Proposed change** |
| Noriyuki Sato | 74 | 6.2.2 | 32 | If the service ID is indicated but no mesh root is indicated when the data is sent by the device other than the mesh root, the destination will be always the mesh root that provides indicated service, since that indication means, "This data frame should be sent to any mesh root which provides indicated service". Since the device automatically selects mesh if there are multiple services that provides the indicated service, the destination unnecessarily belong to the mesh which the L2R layer selects to join. Though it may belong to the same mesh at some time, the L2R layer may switch to another mesh that provides same service. In this case, the destination will not be in same mesh anymore. | "If the service ID is indicated but the mesh root is not indicated by the primitive, the destination address should not be indicated and can be ommitted for the US. |

**Resolution: Revise**

In the current draft, a device belongs to only one mesh at a time for one service. As per 5.1.2.2.1 and 5.1.2.2.2, if a device finds a mesh with a better PQM, it disconnects with the first mesh, then joins the second one.

The way the MT, the NT and the global NT are recorded, a device only knows the PQM of the neighbors in the same mesh.

If no destination address is indicated, the frame should be transmitted to the current mesh root even if the mesh root ID in the primitive is 0xffff, but we can omit the destination address in the L2R in this case.

* ***Insert a new flag in L2R-DATA.request as follows***

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid Range** | **Description** |
| MeshRootData | Boolean | TRUE, FALSE | Indicates whether the data frame is to be sent to the mesh root. |

* ***Insert the following at the end of the description of "FnlDestAddr":***

Ignored if MeshRootData is TRUE.

* ***Modify the 3rd and 4th paragraph on p.75 as follows:***

If the Source Address Present field is set to 0, the Source Address field is omitted from the Addressing fields. The Source Address field is omitted when it is the same as the MAC source address. When the Source Address Present field set to 1, the Source Address field is present.

If the Destination Address Present field is set to 0, the Destination Address field is omitted from the Addressing fields. The Destination Address is omitted when it is the same as the MAC destination address or when the data frame is to be sent to the mesh root. When the Destination Address Present field set to 1, the Destination Address field is present.

* ***Insert the following text after the fourth paragraph on p.42***

If a data frame is received from a neighbor that does not belong to the local NT of the current mesh, the frame is dropped. An OUT\_OF\_NT\_DATA notification is sent to the next higher layer with the L2R-NOTIFY.indication primitive.

* ***Rename “Neighbor Table” in the MT to “Local Neighbor Table (Local NT)” to avoid confusion. Replace NT with “local NT” where applicable.***

* ***Modify Figure 21 as follows:***



If an L2R router belongs to an SL2R mesh and receives an empty L2R-D IE, it replies with an L2R-D IE where the Number of Services field is set to zero and the Service List field is omitted.

Create an error Status in the L2R-SCAN.indication to indicate a conflict in mesh root address in an SSPAN.

* ***Replace the second sentence of clause 5.1.2.2***

A device may join several L2R meshes, unless asked by the next higher layer to join an SL2R mesh. In this case, the device should only join the required SL2R mesh.

* ***Insert the following text at the end of the description of the Service list in Table 1***

Omitted in an SL2R mesh.

* ***Insert the following row before the Service list in Table 1***

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid Range** | **Description** |
| *SSPAN* | Boolean | TRUE, FALSE | Indicates whether the L2R mesh is an SL2R mesh. |

* ***On p.11, l.29, replace the last sentence with:***

The device may decide to become a mesh root if there is no existing L2R mesh to join and if it is able to provide access to one or more services. In an SSPAN, the PAN coordinator is the only device allowed to start an SL2R mesh.