**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |  |
| --- | --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **Proposed comment resolution for CID 1095 from LB110** | |
| Date Submitted | 11 November 2015 | |
| Source | \*[Verotiana Rabarijaona, Fumihide Kojima], †[Hiroshi Harada]  \*[NICT], †[Kyoto University]  \*[3-4, Hikarino-oka, Yokosuka, 239-0847 Japan], †[36-1 Yoshida-Honmachi, Sakyo-ku, Kyoto 606-8501 Japan] | Voice: [+81-46-847-5075]  Fax: [+81-46-847-5089]  E-mail: [rverotiana@nict.go.jp] |
| Re: | 802.15.10 Consolidated Comment Entry Form, CID 1095 | |
| Abstract | Provides a proposed resolution to CID 1095 | |
| Purpose | To be used by the technical editor to apply the necessary changes to the draft to resolve CID 1095 | |
| Notice | This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. | |
| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15. | |

**Comment 1095**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Commenter** | **Page** | **Clause** | **Line** | **Comment** | **Proposed change** |
| Tero Kivinen | 18 | 5.1.2.5 | 24 | CID 146 was not handled in the current draft. The CID says Revise, and points to CID 180, which again points me to document 15-15-0447 which do not answer to this comment. | "Explain the relationship between the AA-RQ/AA-RP and the MAC command Association Request/Response. Why do we need a new mechanism to request short addresses. Why is not enough for the L2R routing to use normal MAC command Association/Disassociation. Looking at line 42 the PAN coordinator is still the one doing the short address allocations, so why is this needed? Is it because we cannot somehow route the MAC command messages yet, but how can we then route the AA-RQ/AA-RP messages? |

**Resolution: Revise**

The MAC commands Associate Request/Response are transmitted in a one hop communication since they are exchanged between a joining device and a potential coordinator from which it has received a beacon/enhanced beacon as indicated by the CoordAddress in the MLME-ASSOCIATE.request primitive. The Association Response frame carries an assigned short address, however the assignment itself if out of the scope of 802.15.4.

The address assignment will be conducted during the MAC association and may be handled by the L2R when higher layers do not handle this function. The Short Address field of the Association Response frame will be used to convey the assigned short address.

* ***Replace 5.1.2.5.1 and 5.1.2.5.2 with :***

After the discovery procedure described in 5.1.2.1, if a device wishes to join an L2R mesh that is using short addresses, the device sets the Allocate Address field of the Association Request frame to 1 in order to inform the coordinator of its wish to be assigned a short address. The assigned short address is inserted in the Short Address field of the Association Response field. The short addresses should be managed by the PAN coordinator in order to avoid duplicate addressing. This procedure is described in Figure x1.



Figure x1: Association with short address request

The following short address assignment procedure may be used if short address assignment is not managed by higher layers. Upon receiving the MLME-ASSOCIATE.indication from the MAC sublayer, the L2R sublayer generates an AA-RQ IE to transmit to a mesh root with a direct connection to the PAN coordinator. The mesh root responds with an AA-RP IE containing the assigned short address when successfully assigned by the PAN coordinator. The coordinator then inserts the assigned short address into the Association Response frame. This procedure is illustrated is Figure x2.



Figure x2: L2R short address assignment procedure

* ***Delete 7.1.2.1 and 7.1.2.2***

State in the text that the reason why AA is done after association is that the *macResponseWaitTime* does not allow enough time to conduct address assignment. If the parent router is the PAN coordinator, use the 15.4 mechanism. Otherwise, do AA in two stages.

Insert the neighbor’s EUI-64 and short addresses in the TC IE and in the NT.