**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **Contribution to the comment resolution for CID 3145 from LB116** |
| Date Submitted | 29 March 2016 |
| 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: [r.h.verotiana@ieee.org] |
| Re: | Document 15-16-0299-02  |
| Abstract | Contributes to the resolution to CID 3145  |
| Purpose | To be used by the technical editor to apply the necessary changes to the draft to resolve CID 3145  |
| 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. |

* ***Insert the following new table at the end of in 4.4.1.***

**Table xx: Routing and feature?? (caption needs to be refined depending on the text to be** added in 4.4.2)

|  |  |
| --- | --- |
| Feature | Routing |
| Unicast  | Multicast | Broadcast  |
| US (Y) | DS (Y) | P2P (O) |
| RE1 | TC IE based route establishment | Y | N | N | N | N/A |
| RE2 | RA IE based route establishment | N | SM1: O5.2.4SM2: Y | N | Y5.2.6 | N/A |
| RE3 | L2R Routing IE based route establishment | N | SM1: NSM2: Y5.2.4 | N | N | N/A |
| SM1 | Storing mode | N/A | O.15.2.4.1 | O.25.2.7.1 | O | N/A |
| SM2 | Non-storing mode | N/A | O.15.2.4.2 | O.25.2.7.2 | N | N/A |
| R1 | Source routing | N/A | SM1: N SM2: Y, 5.4.1.1 | SM1: NSM2: Y, 5.4.1.1 | N | N/A |
| R2 | Hop-by-hop routing | Y5.4.1.2 | SM1: Y, 5.4.1.2SM2: N | SM1: Y, 5.4.1.2SM2: N | SM1:Y5.4.2SM2: N | Y5.4.3 |
| RvS | Routing via Sibling (RvS?) | O5.4.1.2 | O.u5.4.1.2 | N | N | N/A |
| MPO  | Multi PAN operation (TMCTP) | O5.4.1.3 | N | Y |
| E2EA | End to end acknowledgment | O5.4.1.5 | N | N |
| DCat | Data concatenation | O5.4.1.6 | N  | N |
| HbHR | Hop-by-hop retransmission | O5.4.1.4 | O5.4.1.4 | O5.4.1.4 | N | N |

Y: the feature should be used with the routing mode

N: the feature should not be used with the routing mode

N/A: the feature is not relevant to the routing mode

O: the feature is optional with the routing mode

O.1, O.2: either one of these features should be used with the routing mode

O.u: the feature is used with the routing mode if it is used for US routing

Feature: Y/N: usage depending on whether Feature is implemented

* ***Create a new subclause “5.4.3.1 General case” with the first 3 paragraphs of 5.4.3***
* ***Insert a new subclause as follows:***

**5.4.3.3 Broadcast routing with MPO**

Broadcast routing in an MPO environment is performed as described in 5.4.3.1 or 5.4.3.2 if indirect transmission is enabled by all devices. In addition, each PAN coordinators, with the exception of the SPC, should broadcast a frame on its own channel and on the channel of its parent PAN.

* ***Add a new acronym RvS: Routing via Sibling***
* ***Replace Sibling routing with RvS throughout the document***
* ***Modify the second and third paragraphs of p.10 as follows:***

This recommended practice allows the following types of routing:

—

* Unicast routing: routing from one source device to one destination device. Unicast routing can be performed upstream (US), downstream (DS) or peer-to-peer (P2P)
* Multicast routing: routing from one source device to multiple destination devices belonging to a multicast group.
* Broadcast routing: routing from one source device to all the devices within a mesh, or within a PAN (if PAN broadcast is enabled)
* ***Insert the following text before Table xx:***

The different types of routing and the features used in each one of them are summarized in Table xx.