Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [LB40 Submission CID 295, 296, 297, and 298]
Date Submitted: [15 July, 2008]
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Abstract: [This document proposes modifications to frame type which is considering LLC/SNAP and
mesh sublayer]

Purpose: [This document is submitted for consideration for revisions to the IEEE 802.15.5 draft]

Resolution for CID 295, 296, 297, and 298

Contents

- Resolution for CID 295

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Resolution for CID 295(1)

Comment ID	Commenter Name	Clause	Subclause	Page	Line	Comment type
295	James P. K. Gilb	D2	7.3.5.1	177	20	T

- ## Comment
  - The LLC/SNAP data frame is the right way to format a data frame. The data frame was kept for backwards compatibility, but new work should use the LLC/SNAP header in all data frames for more flexibility.

- ## Suggested Remedy
  - Make no changes in the LLC/SNAP data frames, instead include the LLC/SNAP header in the mesh data frames.

- ## Response
  - Accept

Resolution for CID 295(2)

D3

7.3.5.1 Non-secure LLC/SNAP data frame

Change the 1ˢᵗ paragraph in 7.3.5.1 as shown:

The non-secure LLC/SNAP Data frame is identical to a Non-secure Data frame, as defined in 7.3.4.1, except that the Data Payload field includes an LLC/SNAP header as the first octets in the payload, <u>or that the Data Payload field includes an LLC/SNAP header after a mesh header as the first octets in the payload if mesh sublayer exists</u>, as defined in A.1. The size of the combination of the data and LLC/SNAP header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Non-secure LLC/SNAP Data frame shall be formatted as illustrated in Figure 22.

D5

~~**7.3.5.1 Non-secure LLC/SNAP data frame**~~

~~*Change the 1ˢᵗ paragraph in 7.3.5.1 as shown:*~~

~~The non-secure LLC/SNAP Data frame is identical to a Non-secure Data frame, as defined in 7.3.4.1, except that the Data Payload field includes an LLC/SNAP header as the first octets in the payload, <u>or that the Data Payload field includes an LLC/SNAP header after a mesh header as the first octets in the payload if mesh sublayer exists</u>, as defined in A.1. The size of the combination of the data and LLC/SNAP header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Non-secure LLC/SNAP Data frame shall be formatted as illustrated in Figure 22.~~

Resolution for CID 296(1)

Comment ID	Commenter Name	Clause	Subclause	Page	Line	Comment type
296	James P. K. Gilb	D2	7.3.5.2	177	4	T

- Comment
    - The LLC/SNAP data frame is the right way to format a data frame. The data frame was kept for backwards compatibility, but new work should use the LLC/SNAP header in all data frames for more flexibility.

- Suggested Remedy
    - Make no changes in the LLC/SNAP data frames, instead include the LLC/SNAP header in the mesh data frames.

- Response
    - Accept

Resolution for CID 296(2)

D3

7.3.5.2 Secure LLC/SNAP data frame

Change the first paragraph in 7.3.5.2 as shown:

The Secure LLC/SNAP Data frame is identical to a Secure Data frame, as defined in 7.3.4.2, except that the Data Payload field includes an LLC/SNAP header as the first octets in the payload, <u>or that the Data Payload field includes an LLC/SNAP header after a mesh header as the first octets in the payload if mesh sublayer exists</u>, as defined in A.1. The size of the combination of the data and LLC/SNAP header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Secure LLC/SNAP Data frame shall be formatted as illustrated in Figure 23.

D5

~~**7.3.5.2 Secure LLC/SNAP data frame**~~

~~*Change the first paragraph in 7.3.5.2 as shown:*~~

~~The Secure LLC/SNAP Data frame is identical to a Secure Data frame, as defined in 7.3.4.2, except that the Data Payload field includes an LLC/SNAP header as the first octets in the payload, or that the Data Payload field includes an LLC/SNAP header after a mesh header as the first octets in the payload if mesh sublayer exists, as defined in A.1. The size of the combination of the data and LLC/SNAP header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Secure LLC/SNAP Data frame shall be formatted as illustrated in Figure 23.~~

Resolution for CID 297(1)

Comment ID	Commenter Name	Clause	Subclause	Page	Line	Comment type
297	James P. K. Gilb	D2	7.3.6.1	178	13	T

- ## Comment
  - – Add the LLC SNAP header to the mesh data frame so that more than one protocol type can be supported.

- ## Suggested Remedy
  - – Change "includes a mesh header" to be "includes a mesh header followed by the LLC/SNAP header"

- ## Response
  - – Accept

Resolution for CID 297(2)

D3

7.3.6.1 Non-secure mesh data frame

The Non-secure Mesh Data frame is identical to a Non-secure Data frame, as defined in 7.3.4.1, except that the Data Payload field includes a mesh header as the first octets in the payload. The size of the combination of the data and mesh header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Non-secure Mesh Data frame shall be formatted as illustrated in Figure 22.

The frame type shall be set to the mesh data frame value in Table 39 and the SEC bit shall be set to zero. The other fields in the MAC header take on values that are appropriate for that particular data frame. All fields in the MAC header of a Non-secure Mesh Data frame shall be decoded on reception.

D5

7.3.6.1 Non-secure mesh data frame

The Non-secure Mesh Data frame is identical to a Non-secure Data frame, as defined in 7.3.4.1, except that the Data Payload field includes a mesh header followed by the LLC/SNAP header as the first octets in the payload. The size of the combination of the data and mesh header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Non-secure Mesh Data frame shall be formatted as illustrated in Figure 22.

The frame type shall be set to the mesh data frame value in Table 39 and the SEC bit shall be set to zero. The other fields in the MAC header take on values that are appropriate for that particular data frame. All fields in the MAC header of a Non-secure Mesh Data frame shall be decoded on reception.

Related Comments 298(1)

Comment ID	Commenter Name	Clause	Subclause	Page	Line	Comment type
298	James P. K. Gilb	D2	7.3.6.2	178	13	T

- ## Comment
  - – Add the LLC SNAP header to the mesh data frame so that more than one protocol type can be supported.

- ## Suggested Remedy
  - – Change "includes a mesh header" to be "includes a mesh header followed by the LLC/SNAP header"

- ## Response
  - – Accept

Related Comments 298(2)

D3

7.3.6.2 Secure mesh data frame

The Secure Mesh Data frame is identical to a Secure Data frame, as defined in 7.3.4.2, except that the Data Payload field includes a mesh header includes a mesh header as the first octets in the payload. The size of the combination of the data and mesh header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Secure Mesh Data frame shall be formatted as illustrated in Figure 23.

The frame type shall be set to the mesh data frame value in Table 39 and the SEC bit shall be set to one. The other fields in the MAC header take on values that are appropriate for that particular data frame. All fields in the MAC header of a Secure Mesh Data frame shall be decoded on reception.

D5

7.3.6.2 Secure mesh data frame

The Secure Mesh Data frame is identical to a Secure Data frame, as defined in 7.3.4.2, except that the Data Payload field includes a mesh header followed by the LLC/SNAP header as the first octets in the payload. The size of the combination of the data and mesh header shall not exceed the limits for the Data Payload field, as defined in 7.3.4.1. A Secure Mesh Data frame shall be formatted as illustrated in Figure 23.

The frame type shall be set to the mesh data frame value in Table 39 and the SEC bit shall be set to one. The other fields in the MAC header take on values that are appropriate for that particular data frame. All fields in the MAC header of a Secure Mesh Data frame shall be decoded on reception.

Reference