**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | Providing EtherType in the MAC data frame  |
| Date Submitted | 21 January 2016 |
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| Re: | text for 802.15.8 draft covering the addition of an EtherType field to the MAC data frame format |
| Abstract | Text for inclusion in IEEE 802.15.8 |
| Purpose | Provision of the text to facilitate its incorporation into the draft text of the IEEE 802.15.8 standard currently under development in the 802.15 TG8. |
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***Addition of Ethertype to the MAC data frame***

*Notes in RED (like this one) are explanatory notes not intended to be part of the standard, which should be removed when integrating the text. This text shows changes to the P802.15.8\_D0.17.0.doc draft to add an EtherType field into the MAC Data frame.*

*The purpose of this submission is to provide an updated figure and text changes associated with add an EtherType field into the MAC data frame format.*

*The changes are on the following pages:*

*In clause 5.2.3.1 Data frame format replace the graphic of “Figure 15—Data frame format” with the updated graphic given below: (This has the EtherType field inserted after Payload IEs and before the Data Payload*

#### Data frame format

The Data frame shall be formatted as illustrated in Figure 3.



**Figure 3—Data frame format**

* + - * 1. Data frame MHR field

The Frame Type field shall contain the value that indicates a Data frame, as shown in *<TABLE 3>*. All other fields in the Frame Control field shall be set appropriately according to the intended use of the Data frame.

*After clause “5.2.3.1.1 Data frame MHR field” insert new clause 5.2.3.1.2 Data frame EtherType field” with the description as given below:*

* + - * 1. Data frame EtherType field

The EtherType field shall be present when data payload is present. The EtherType field shall be omitted if there is no data payload present.

*In clause 6.2.1 “MCPS-DATA.request”, add the new parameter “EtherType” before the “MsduLength” parameter in the primitive’s parameter list as shown below. Also since convention is to use CamelCase for these parameters appropriate changes are shown below to.*

*Also, the draft is missing a parameter to convey the actual payload data. To correct this please also add and MSDU parameter as shown below*

* + 1. MCPS-DATA.request

The primitive requests the transfer of data to another PD. The properties of this primitive are:

MCPS-DATA.request {

phyModeSelection;

SourceAddress;

DestinationAddress;

MulticastGroupId;

EtherType;

MsduLength;

Msdu;

*And, in table parameter description table, “Table 62—MCPS-DATA.request parameters”, make corresponding changes inserting a definition for the Ethertype parameter and the missing MSDU parameter as shown below.*

|  |  |  |  |
| --- | --- | --- | --- |
| MulticastGroupId | Integer | 0 to 216 −1  | Group ID  |
| EtherType | Unsigned | 0 to 216 −1 | The EtherType value to use in the MAC data frame. |
| MsduLength | Integer | TBD | MDSU length in octets.  |
| Msdu | array of octets | - | The octets to send in the Data Payload field of the MAC data frame.  |

*Similarly in clause 6.2.3 “MCPS-DATA.indication”, add the new parameter “EtherType” parameter and the missing Msdu parameter as shown below:*

* + 1. MCPS-DATA.indication

The primitive indicates the reception of data from another PD. The properties of this primitive are:

MCPS-DATA.indication {

phyModeSelection;

SourceAddress;

DestinationAddress;

MulticastGroupId;

EtherType

MsduLength;

Msdu;

*And, update the parameter description table, “Table 64—MCPS-DATA.indication parameters” as shown below.*

|  |  |  |  |
| --- | --- | --- | --- |
| MulticastGroupId | Integer |   | Group ID  |
| EtherType | Unsigned | 0 to 216 −1 | The EtherType value from the received data frame. |
| MsduLength | Integer | TBD | MDSU length in octets.  |
| Msdu | array of octets | - | The octets from the Data Payload field of the received data frame  |

*<end>*