**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 Resolution for LB85 CID310 | |
| Date Submitted | [06 Nov. 2012] | |
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| Re: | IEEE802.15.4k LECIM LB85 Comment Resolution | |
| Abstract | This document proposes a solution to comment CID310 | |
| Purpose | Draft standard development | |
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***Proposed Changes for DSME-GTS request command***

* ***Change Figure 59i with the following one:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Octets:**  **variable (refer to 5.2.2.4.1)** | **1** | **1** | **0/1** | **0/2** | **0/1** | **Variable** | **0/1** |
| MHR fields | Command Frame Identifier (defined in Table 5) | DSME-GTS Management | Number of Slots | Preferred Superframe | Preferred Slot ID | DSMESABSpecification | Allocation Order |

**Figure 59i – DSME-GTS request command format**

* ***Add the following sub-clause after 5.3.11.4.7:***

**5.3.11.4.8 Allocation Order**

Allocation Order field shall be present if *macExtendedDSMEEnabled* is TRUE. This field shall indicate the DSME-GTS allocation interval and be set to the value of AllocationOrder, AO, of the device requesting a DSME-GTS. The relationship between the value of this field and the DSME-GTS allocation interval is described in 5.3.11.3.6.

***Proposed Changes for DSME-GTS reply command***

* ***Change Figure 59l with the following one:***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Octets:**  **variable (refer to 5.2.2.41)** | **1** | **1** | **0/2** | **0/2** | **Variable** | **0/1** | **0/1** | **0/2** | **0/1** | **0/2** |
| MHR fields | Command Frame Identifier (defined in Table 5) | DSME-GTS Management | Destination Address | Channel Offset | DSMESAB-Specification | Allocation Order | BI Index | Superframe ID | Slot ID | Channel Index |

**Figure 59l – DSME-GTS reply command format**

* ***Add the following sub-clauses after 5.3.11.5.6:***

**5.3.11.5.7 Allocation Order**

Allocation Order field shall be present if *macExtendedDSMEEnabled* is TRUE. This field shall indicate the DSME-GTS allocation interval and be set to the value of AllocationOrder, AO, of the device requesting a DSME-GTS. The relationship between the value of this field and the DSME-GTS allocation interval is described in 5.3.11.3.6.

**5.3.11.5.8 BI Index**

The BI Index field shall be present if *macExtendedDSMEenabled* is TRUE. This field shall contain the index of the beacon interval *macBIIndex*, BI, in which the DSME-GTS needs to be allocated. The BI Index is the sequence number of the BI in a multi-superframe beginning from zero.

**5.3.11.5.9 Superframe ID**

The Superframe ID field shall be present if *macExtendedDSMEenabled* is TRUE. This field shall contain the index of the superframe in which the DSME-GTS needs to be allocated. The Superframe ID is the sequence number of the superframe in a multi-superframe beginning from zero. The superframe in which the PAN coordinator sends its beacons serves as the reference point (Superframe ID 0).

**5.3.11.5.10 Slot ID**

The Slot ID field shall be present if *macExtendedDSMEenabled* is TRUE. This field shall contain the index of the DSMEGTS to be allocated. The slot ID is the sequence number of the DSME-GTS in a superframe beginning from zero.

**5.3.11.5.11 Channel Index**

The Channel Index field shall be present if *macExtendedDSMEenabled* is TRUE. This field shall contain the channel number of the DSME-GTS to be allocated.

***Proposed Changes for primitives***

* ***In 6.2.21.1.1 MLME-DSME-GTS.request,***

***Add the AllocationOrder parameter to the semantics of the MLME-DSME-GTS.request primitive as follows:***

MLME-DSME-GTS.request (

DeviceAddress,

ManagementType,

Direction,

PrioritizedChannelAccess,

NumSlot,

PreferredSuperframeID,

DSMESABSpecification,

SecurityLevel,

KeyIdMode,

KeySource,

KeyIndex,

AllocationOrder

)

***Add the following AllocationOrder parameter to Table 44q:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| AllocationOrder | Integer | 0x00-0x08 | As defined in 5.3.11.5.7. |

* ***In 6.2.21.1.2 MLME-DSME-GTS.indication,***

***Add the AllocationOrder parameter to the semantics of the MLME-DSME-GTS.indication primitive as follows:***

MLME-DSME-GTS.indication (

DeviceAddress,

ManagementType,

Direction,

PrioritizedChannelAccess,

NumSlot,

PreferredSuperframeID,

PreferredSlotID,

DSMESABSpecification,

AllocationOrder

)

***Add the following AllocationOrder parameter to Table 44r:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| AllocationOrder | Integer | 0x00-0x08 | As defined in 5.3.11.5.7. |

* ***In 6.2.21.1.3 MLME-DSME-GTS.response,***

***Add the parameters (AllocationOrder, BIIndex, SuperframeID, SlotID, ChannelIndex) to the semantics of the MLME-DSME-GTS.response primitive as follows:***

MLME-DSME-GTS.response (

DeviceAddress,

ManagementType,

Direction,

PrioritizedChannelAccess,

ChannelOffset,

DSMESABSpecification,

Status,

AllocationOrder,

BIIndex,

SuperframeID,

SlotID,

ChannelIdex

)

***Add the following parameters to Table 44s:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| AllocationOrder | Integer | 0x00-0x08 | As defined in 5.3.11.5.7. |
| BIIndex | Integer | 0x00-0xff | As defined in 5.3.11.5.8. |
| SuperframeID | Integer | 0x0000-0xffff | As defined in 5.3.11.5.9. |
| SlotID | Integer | 0x00-0x0e | As defined in 5.3.11.5.10. |
| ChannelIndex | Integer | 0x00-0x1f | As defined in 5.3.11.5.11. |

* ***In 6.2.21.1.4 MLME-DSME-GTS.confirm,***

***Add the parameters (AllocationOrder, BIIndex, SuperframeID, SlotID, ChannelIndex) to the semantics of the MLME-DSME-GTS.confirm primitive as follows:***

MLME-DSME-GTS.confirm (

DeviceAddress,

ManagementType,

Direction,

PrioritizedChannelAccess,

ChannelOffset,

DSMESABSpecification,

Status,

AllocationOrder,

BIIndex,

SuperframeID,

SlotID,

ChannelIdex

)

***Add the following parameters to Table 44t:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| AllocationOrder | Integer | 0x00-0x08 | As defined in 5.3.11.5.7. |
| BIIndex | Integer | 0x00-0xff | As defined in 5.3.11.5.8. |
| SuperframeID | Integer | 0x0000-0xffff | As defined in 5.3.11.5.9. |
| SlotID | Integer | 0x00-0x0e | As defined in 5.3.11.5.10. |
| ChannelIndex | Integer | 0x00-0x1f | As defined in 5.3.11.5.11. |