**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **LB213/D02 comment resolution -- CIDs 32 and 33** |
| Date Submitted | August 18, 2025 |
| Sources | Alex Krebs (Apple)  krebs @ apple.com |
| Re: |  |
| Abstract |  |
| Purpose | To propose resolution for MMS related comments for “P802.15.4ab™/D02 Draft Standard for Low-Rate Wireless Networks”. |
| Notice | This document does not represent the agreed views of the IEEE 802.15 Working Group or IEEE 802.15.4ab Task Group. It represents only the views of the participants listed in the “Sources” field above.It is offered as a basis for discussion and is not binding on the contributing individuals. The material in this document is subject to change in form and content after further study. The contributors reserve the right to add, amend or withdraw material contained herein. |

# CID 32, 33

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| **Name** | **Index #** | **Page** | **Sub-clause** | **Line #** | **Comment** | **Proposed Change** |
| CHITRAKAR, ROJAN | 32 | 122 | 10.39.11.3.7 | 12 | What happens if the Initiator encounters some error during timing measurements? How does it indicate the error condition? The comment is also applicable for other variants of the Report frame. | Use an impossible value (e.g., 0) of the Round-trip Time to indicate an error in the measurement. |
| CHITRAKAR, ROJAN | 33 | 122 | 10.39.11.3.7 | 24 | What happens if the Initiator encounters some error during timing measurements? How does it indicate the error condition? The comment is also applicable for other variants of the Report frame. | Use an impossible value (e.g., 0) of the Reply Time to indicate an error in the measurement. |

Discussion: We can reserve the upper 16 integer values for error codes. Let's make this a generic solution instead of changing all messages seperately. Tbd.: more errors than shown below.

Proposed resolution: Revised.

Disposition detail: Instruction to editor: Add clause "Ranging error codes" somewhere, e.g., under 10.39.11.3.18 "General" as follows:

**10.39.11.3.18.X Timestamp Value Range and Error Codes**

. The following values are reserved for signaling ranging errors via the Reply Time and Round-trip time fields as described in 10.39.11.3:

|  |  |
| --- | --- |
| **Value** | **Description** |
| 0xffffffffff | Generic ranging error |
| 0xfffffffff0- 0xfffffffffe | reserved |

**Table XX -- Ranging Error Codes**

**10.39.6 MMS UWB report phase**

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A report primarily serves to provide ranging results obtained during the ranging phase. The values for the

reply time and round-trip time shall be reported as measured by its sender's local clock without clock

frequency offset compensation to the receiver's side. The range of valid timestamp values of the reply time and round-trip time (as described in 10.39.11.3) shall be limited to values outside those defined in Table XX. If there are any errors during the ranging measurement, the values of the reply time and/or round-trip time shall be set to one of the non-reserved values in Table XX. Additionally, report messages may be used to serve

other purposes.