**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **TG9 KMP Minutes for the November 2015 Plenary Meeting, Dallas, TX** |
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| Re: | TG9 KMP Minutes for November 2015 Plenary Meeting |
| Abstract | TG9 KMP Minutes for November 2015 Plenary Meeting |
| Purpose | Official Minutes |
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Chair Robert Moskowitz called the meeting to order at 9:02 a.m. on Monday, November 9, 2015.

The agenda for IEEE 802.15 TG9 is found in [15-15/0834r0](https://mentor.ieee.org/802.15/dcn/15/15-15-0834-00-0009-tg9-agenda-dallas-2015.xlsx); it was approved without dissent or modification.  The minutes of the September 2015 Bangkok meeting ([15-15/0714r0](https://mentor.ieee.org/802.15/dcn/15/15-15-0714-00-0009-tg9-kmp-minutes-for-the-september-2015-interim-meeting-bangkok-th.docx)) were approved by acclamation. The opening report is found in [15-15/0835r0](https://mentor.ieee.org/802.15/dcn/15/15-15-0835-00-0009-tg9-opening-report-november-2015.ppt).

The primary work for the week will be resolution of comments from the Sponsor Ballot. 75 comments were submitted during the ballot. The group proceeded to take the comments ([15-15/0821r0](https://mentor.ieee.org/802.15/dcn/15/15-15-0821-00-0009-sb-comments.xls)) in order. Items that relate to the scope of the PAR and the multiplexing data service were deferred until IEEE 802.15 leadership could be consulted as to the best way forward: revising the PAR or changing the text in the document to indicate that the multiplexing data service is defined in support of KMP activities (although this does not prevent other uses of the multiplexing data service that are outside of the scope of the Recommended Practice).

A few comments from the Mandatory Editorial Coordination (MEC) review indicated that terms like “ensure” should be removed. Comment i-28 addresses this issue, although a second use of “ensure” in the same paragraph needs to be fixed as well.

Comments i-8 to i-10, i-12, i-13, and i-41 are deferred, as the changes proposed are controversial.

The meeting recessed at 10:00 a.m.

The meeting reconvened at 9:04 a.m. on Tuesday.

Bob Moskowitz (HTT Consulting) spoke to Bob Heile (Wi-SUN Alliance) regarding the comments that noted that the Recommended Practice and the PAR are not in alignment with regards to having a multiplexing data service. Changing the PAR at this point is not a timely option. Instead, the task group will work to reword the draft so that it does not emphasize the multiplexed data service as a separate feature but rather one that exists in support of KMP transport. Any other uses of the multiplexing data service is incidental.

Tero Kivinen (INSIDE Secure) has a proposal ([15-15/870r00](https://mentor.ieee.org/802.15/dcn/15/15-15-0870-00-0009-ethertype-compression.doc)) to address a comment and that will free up two octets if there a KMP payload is carried in a single frame. When the transfer type is 0b00, it ought to be possible to drop the multiplex ID (a 2-octet value). The transaction ID remains a 6-bit value, while the multiplex ID is an implicit value of 0x01. In a slightly related point, Don Sturek (Silver Spring Network) noted that for a single-frame transmission, they interpreted the text as not requiring an acknowledgement. Kivinen says that the state machine is not actually designed that way – the acknowledgement is always required. The problem comes down to whether a single-frame transmission constitutes a single fragment. Fragments are always acknowledged. Sturek sees Figure 13 as indicating that a full MP Payload is not a fragment, therefore no acknowledgement is required. For Sturek’s uses, they do not want to use an acknowledgement. As no common ground was reached, the presentation and discussion were tabled for later in the session.

Brian Weis (Cisco) raised IEEE 802.1’s concerns (i-73, KMP ID table). He notes that the RAC has not been successful in issuing Ethertypes in a couple of year. Tero Kivinen said that the registry really should be run under the IEEE 802.15 ANA (Assigned Numbers Authority). Weis indicated that the ANA would be fine. He does have a problem with having two different types of values being placed in the same field – one being Ethertypes, the other being 802.15-specific allocated values. Mick Seaman is concerned that RevCom will be upset if they perceive that this Recommended Practice is defining a new Ethertype registry. To be clear, the values to be used in IEEE 802.15.9 come from 0x0000 to 0x05dc, which are not Ethertype values (those values in the IEEE 802.3 Ethernet specification are length values). The solution is to change Table 17 and the text to reflect that Multiplex ID is not an alias for Ethertype, although officially assigned Ethertype values should be used if they already exist. An exception is made for EAPOL (with its existing Ethertype), which uses the multiplex ID of 0x0001 (IEEE 802.15.9 KMP payloads) and then is sub-specified under that as being EAPOL as opposed to any of the other supported KMPs. This solution resolves comments i-69 and i-73.

The meeting recessed at 9:42 a.m. Tuesday.

The meeting was reconvened at 10:04 a.m. Tuesday.

Returning to the multiplex ID discussion, Don Sturek proposed that the transfer type be made into 3 bits. The transaction ID would be reduced by one bit to 5 bits. These changes modify Table 16 and corresponding text describing the meaning and use of the transfer type, Transaction ID, and Multiplex ID fields. The resulting compromise is documented in [15-15/870r02](https://mentor.ieee.org/802.15/dcn/15/15-15-0870-02-0009-ethertype-compression.doc).

It was agreed that single frame payloads (“a fragment”, if one must) may or may not have acknowledgements handled within the IEEE 802.15.9 protocol.

The closing report ([15-15/0893r00](https://mentor.ieee.org/802.15/dcn/15/15-15-0893-01-0009-closing-report-november-2015.ppt)) was displayed and edited. It will be presented at the Wednesday mid-week plenary rather than the Thursday evening closing plenary.

Weekly BRC calls will continue next Tuesday (November 17, 2015) at 5 p.m. – 6 p.m. EST.

Tero Kivinen moved to reaffirm the BRC membership. Don Sturek seconded the motion. The motion was approved by acclamation.

Tero Kivinen moved to approve the resolutions to the comments ([15-15/0821r02](https://mentor.ieee.org/802.15/dcn/15/15-15-0821-02-0009-sb-comments.xls)) received during the initial Sponsor Ballot. Don Sturek seconded the motion. The motion was approved by acclamation.

The meeting was adjourned at 11:43 a.m. Tuesday.