**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
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| Re: | [802.15 Maintenance and WNG Meeting in San Diego, CA, USA, July 2014] | |
| Abstract | [Reference document for LB94 comment resolutions in IEEE 802.15 SC-M] | |
| Purpose | [Reference document for LB94 comment resolutions in IEEE 802.15 SC-M] | |
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**Proposed resolution to CID 793**Replace figure 72 with the one attached below.



**Proposed resolution to CID 794, 795, 796, 155, 154**

**5.12.3.2 Periodic RIT data request transmission and reception**

In the RIT mode, the device transmits the RIT Data Request command every *macRitPeriod* using unslotted CSMACA.

The destination address of the command may be the broadcast short address or the address of the intended transmitter of data (associated coordinator). The command may optionally contain a payload, as defined in 6.6.25. When the command carries no payload, after the transmission of the RIT Data Request command, the device listens for *macRitDataWaitDuration* for incoming frame (except RIT Data Request command) and goes back to sleep state till the next periodic transmission of the RIT Data Request command. When the device is in the receiving state after transmission of the RIT Data Request command, the RIT Data Request command from another device shall be discarded. When the RIT Data Request command carries a payload, the device goes back to sleep after the transmission of the RIT Data Request until the end of the Time to First Listen (*T0)* period of time. Then the device repeats a listen interval of *macRitDataWaitDuration* every Repeat Listen Interval (*T*) period of time for Number of Repeat Listen (*N*) times. The value of the Number of Repeat Listen field shall be less than (*macRitPeriod* − Time to First Listen field)/(Repeat Listen Interval Field).

The device shall start listening slightly before each scheduled listen time based on a guard time computed from possible clock skew since the last RIT Data Request command transmission.

Upon reception of a frame after the transmission of the RIT Data Request command, it notifies its arrival to the next higher layer by initiating corresponding indication primitive. At the completion of frame reception, the next higher layer may set *macRitPeriod* parameter to zero (RIT off). If this is the case, the device shall stop periodic transmission of RIT Data Request command and become always active until *macRitPeriod* parameter is set to a nonzero value by the next higher layer. During this period when RIT is off all transactions shall be handled as those of normal non beacon-enabled PAN.

**5.12.3.3 RIT Transmission**

In order to transmit frame in the RIT mode, the device shall at first stop its periodic transmission of the RIT Data Request commands, enable its receiver, and wait at most *macRitTxWaitDuration* for reception of the RIT Data Request command from a neighboring device. During this *macRitTxWaitDuration* period, all other frames except the RIT Data Request command shall be discarded.

Upon reception of RIT Data Request command, the MAC sublayer sends the pending data using unslotted CSMA-CA. The Destination PAN Identifier field and the Destination Address field of the outgoing data frame shall be set as the Source PAN Identifier field and the Source Address field of the received RIT Data Request command, respectively. At the completion of frame transmission, the corresponding confirm primitive shall be issued by the MAC sublayer to the next higher layer. At this point, the device shall restart its transmission of periodic RIT DataRequest commands. If the next higher layer sets *macRitPeriod* parameter to RIT off, the device shall stop periodic transmission of RIT Data Request command and become active.

When the RIT Data Request commands carry the Listen Information field, the device may either wait to receive a data request frame from the receiving device, or sleep until the next scheduled listen time by the receiving device then wake up to transmit the intended frame.

Figure 74 shows the message sequence chart for data transmission in RIT mode.

**Proposed resolution to CID 138**

Add MSC for RIT with data request carrying payload as below (at the bottom of figure 73).

