**P.2.4 Frame priority**

Frame priority allows LECIM networks to exhibit low latencies for truly critical data messages versus those latencies for link maintenance or other lower priority messages. To ensure frame priority functionality whenever PCA is scheduled to occur, the CAP duration must be set long enough to accommodate the PCA plus *aMinCAPLength~~.~~* ~~The PCA duration varies based on the channel access scheme used. For CSMA-CA, a PCA is at least 880 symbols in duration. For CCA Mode 4 (ALOHA), it is equal to at least four~~ *~~macLECIMAlohaBackoffSlot~~* ~~durations.~~

Frame priority is established by two means: PCA allocations and an alternate backoff mechanism, described in 5.1.1.4.5 for CSMA-CA and in 5.1.1.4.6 for CCA Mode 4 (ALOHA)~~, respectively~~. Both mechanisms are used during contention access~~.~~, but ~~T~~the ~~former~~ PCA allocations~~, however, is~~ can only used when operating in beacon-enabled mode. ~~When present, the PCAs are evenly distributed throughout the superframe. The first such PCA is included in the beginning of every CAP of a superframe or multi-superframe. If a scheduling of a PCA would occur outside of the CAP, that PCA is omitted.~~ The PCA~~s are~~is only usable for critical data messages, but the critical data messages do have to compete with each other for access to the channel.

The alternate backoff mechanism is used whenever contention access is applied. It operates slightly differently based on whether CCA Mode 4 (ALOHA) is used or not. In CCA Mode 4 (ALOHA), retransmissions are based on random integer number of *macLECIMAlohaBackoffSlot* durations. ~~whenever a critical data message experiences a~~ *~~macAckWaitDuration~~* ~~timeout, the transmitting device randomly draws a retransmission schedule from a non-increasing backoff window:~~

~~2~~~~[0,~~*~~macLECIMAlohaBE]~~* ~~– 1 x~~ *~~macLECIMAlohaBackoffSlot~~* ~~symbols~~

~~where the PIB attribute~~ *~~macLECIMAlohaBE~~* ~~is a constant, and the PIB attribute~~ *~~macLECIMAlohaBackoffSlot~~* ~~is an implementation-dependent parameter~~.

When CCA Mode 4 (ALOHA) is not used, ~~critical data messages use a fixed BE defined in 5.1.1.4.5, implying that the backoff window does not increase during retransmission attempts. In addition,~~ the transmitting device remains in persistent mode, where the device continues to sample the channel at every *aUnitBackoffPeriod* even in the case when the CCA returns a busy channel indication. The backoff counter~~, initialized randomly from the pool 2~~~~[0,BE]~~ ~~– 1 ,~~ is decremented by one in every *aUnitBackoffPeriod* where the CCA returns an idle channel indication.