Startup Change Proposal

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Supporters

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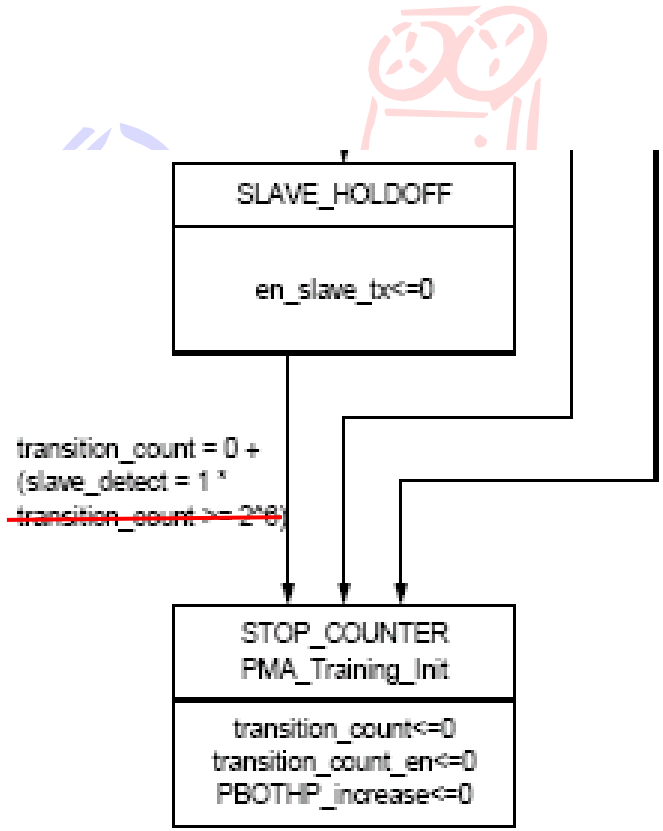
Transition Counter Change

- Eliminate the condition of transition_count >= 2^6
  - Allows detection of SLAVE training pattern up to transition point
- Select a fixed start value for Transition Counter
  - Reduce variables in startup
  - Propose 2^9 (~10ms)



Transition Counter Change

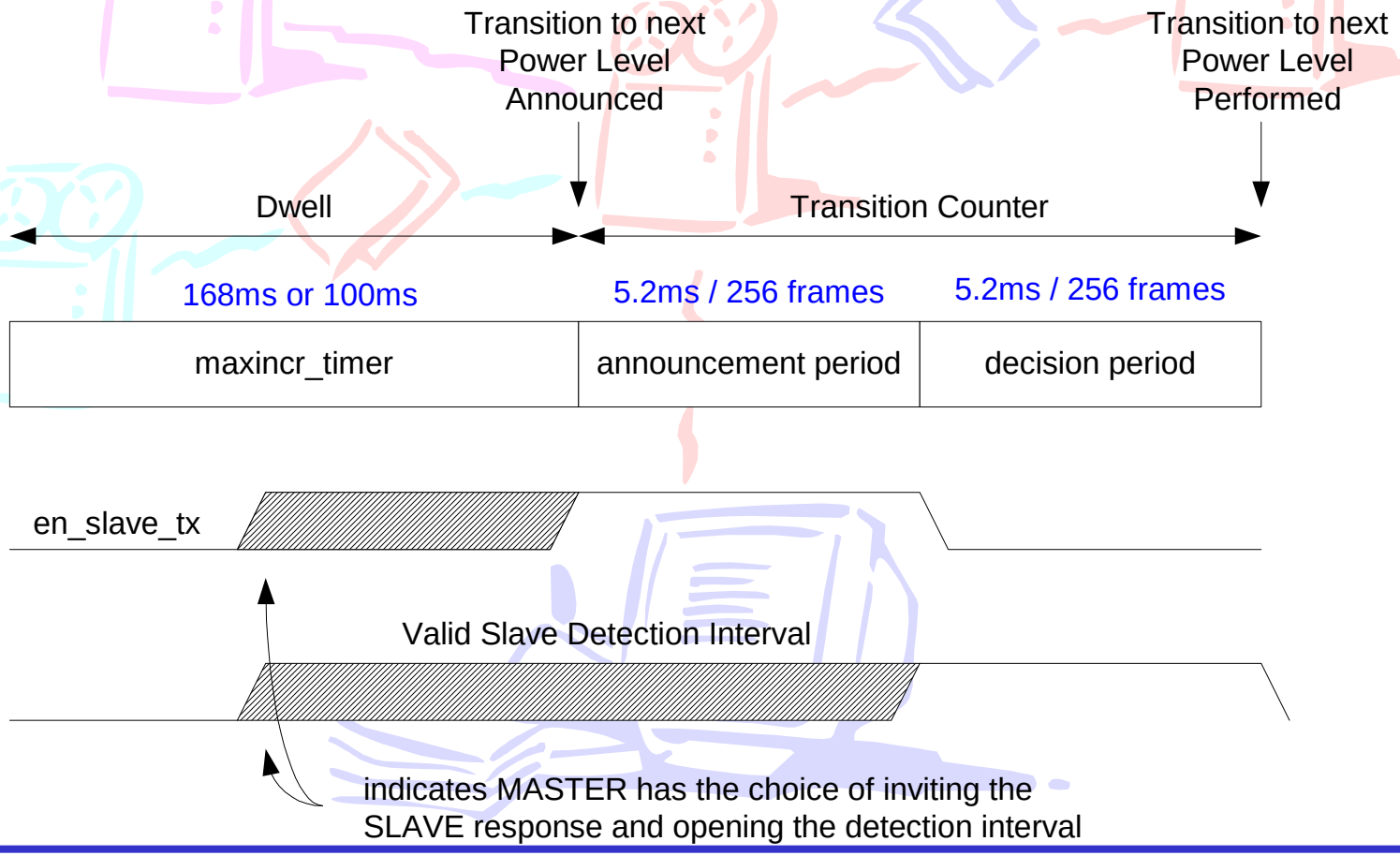
- Text Changes: pg 117 & pg 124

If the MASTER does not detect the SLAVE ~~while transition_count>=2^6~~, when the transition_counter expires, the MASTER increments to transmit setting master_init_step=2, which corresponds to the medium transmit power level and THP settings, PBO=5 (corresponding to a power backoff of 10dB) and THP=THPByp or THP=THPMed, the maxincr_timer is started again and en_slave_tx and PBOTHP_increase are set to zero.

transition_count
This variable reports the value of the transition counter contained in the InfoField sent to the remote device. Transition_count must comply with the state diagram description given in 55.4.6.2. When the message field contains a flag for a state transition, the transition counter will denote the remaining number of InfoField until the next state transition. In the PMA_Training_Init_M state, the MASTER initiates the transition count for a PBO/THP increase with "PBOTHP_increase" flag and a ~~minimum~~ counter value of 2^9 (~10ms) ~~and maximum of 2^10 - 1 (~20ms)~~. The SLAVE will respond prior to the counter reaching 2^8 (~5ms) else it holds off until the next PBO/THP setting from the MASTER. Upon detection of the SLAVE's training pattern ~~and if the transition count is greater than 2^6 (~1ms)~~ the MASTER will abort the transition, reset the PBOTHP_increase flag and set the Next transmitter setting octet to the current PBO and THP settings. The MASTER initiates the transition to PMA_Fine_Adjust count with the "trans_to_Fine_Adjust" flag and a ~~minimum~~ counter value of 2^9 (10ms) ~~and maximum of 2^10 - 1(~20ms)~~. The SLAVE responds prior to the counter reaching 2^6 (1ms) with the same flag and a count value matching the MASTER. Then both PHY's will transition to PMA_Fine_Adjust within one PMA frame. The same sequence is performed in the transition to PCS_Test using the "trans_to_PCS_Test" flag. When the message field does not contain a flag for a state transition, the transition counter will be set to zero and ignored by the receiver.

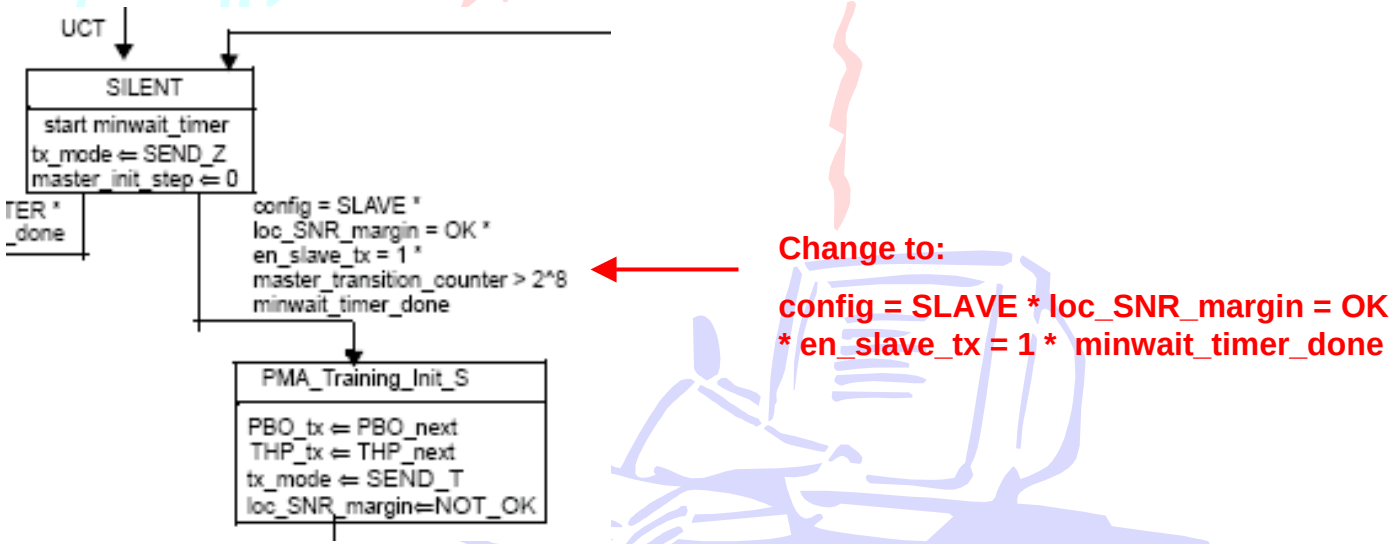
PBO/THP Increase Transition

- Proposed Transition Period
  - Note: the slave needs only to receive a single Info Field



PHY Control Change

- Transition from SILENT to PMA_Training_Init_S
  - missing *
  - master_transition_counter > 2^8
    - redundant for first two PBO settings since en_slave_tx is set to 0 by the master when transition_count = 2^8
    - prevents transition to PMA_Training_Init_S for final PBO setting



Link Monitor Change

- Fix typo, eliminate redundant state