IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Awake Window access CID8328 | | | | |
| Date: 2016-07-26 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Solomon Trainin | Intel |  | 972547885738 | solomon.trainin@intel.com |
| Carlos Cordeiro | Intel |  |  | carlos.cordeiro@intel.com |
| Payam Torab | Broadcom |  |  | payam.torab@broadcom.com |

Abstract

Propsed in CID8328 solutioin is dicusssed and resolution proposed

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Clause** | **Assignee** | **Submission** | **Comment** | **Proposed Change** | **Comment Group** |
| 8328 | TorabJahromi, Payam | 1293.50 | 10.3.4.3 | Solomon Trainin | 11-16/820 | Mandating MAC-level behavior based on state information from other (overlapping) BSSs is ill-defined, and this new paragraph (accepted into Draft 5.6 without a corresponding CID) requires DCF timers in a BSS to be modified based on "Awake Window element for each BSS the STA discovers". What does discovering mean, and what is being mandated here? This is a lame sentence someone thought of without limited view of DMG BSS management. There are well-defined DMG mechanisms (DMG clustering, moving TBTT, awake window resizing) that can mitigate the awake window contention.    The author(s) of this tragic text seem to have attempted to copy the IBSS text, and thrown in some random OBSS sentence into it. Why not do the same behavior for overlapping CBAPs from different BSSs then? Access mechanism for those CBAPs is the same - and the argument that awake window is small and collision impact is drastic is completely subjective.    Propose to keep the behavior dependent on information available within the BSS only (hard to believe a proposal needs to say that) - and to implementers: manage awake window conntention by moving TBTTs, changing awake window duration (fix your PHY if it burns too much power), DMG clustering, better access implementations such as CTS-to-self and ATIM transmit burst, and managing multiple BSSs if owned by the same device.    In an IBSS the backoff timer for a pending non-Beacon or non-ATIM transmission shall not decrement in the  period from the TBTT until the expiration of the ATIM window, and the backoff timer for a pending ATIM  frame shall decrement only within the ATIM window. (See Clause 11 (MLME).) Within an IBSS a separate  backoff interval shall be generated to precede the transmission of a Beacon frame, as described in 11.1.3.5  (Beacon generation in an IBSS). | Change the paragraph to:    "In a PBSS or DMG infrastructure BSS the backoff timer for a pending non-ATIM transmission shall not decrement in the period from the TBTT until the expiration of the awake window, and the backoff timer for a pending ATIM frame shall decrement only within the awake window." | MAC Operation |

Discussion: Proposal of the CID covers BTI that there is no need to define backoff rule for BTI, it is aready exist (see 1292L53).

Propose to integrate suggested text with the exisisting to cover that is not defined in the existent text.

"In a PBSS or DMG infrastructure BSS the backoff timer for a pending non-ATIM transmission shall not decrement in the period from the TBTT until the expiration of the awake window, and the backoff timer for a pending ATIM frame shall decrement only within the awake window."

At the start of an awake window, a DMG STA shall suspend decrementing its backoff timer(s) for any transmission of non-ATIM frames for the duration of the awake window as indicated in the most recently Awake Window elementreceived in the BSS.At the end of the awake window, the DMG STA shall resume the backoff timer(s) for non-ATIM frames. The backoff timer for a pending ATIM frame shall decrement only within the awake window.

**References:**

IEEE P802.11-REVmc/D6.0, June 2016