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AI relative to Master/slaves and further corrections

(AIs from session #47 relative to comment 1007 and 1044)

Mariana Goldhamer

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1 Introduction

1.1 The resolution of the comment 1007 (Mariana) specifies:

AI taken by Mariana, provide the figure addressing the sub-frames aspect for bursty system coexistence with WirelessMAN-CX

AI taken by Mariana to improve the usage of the shared frames

AI taken by Mariana to modify the figure and the text accordingly to move the shared frame to be the first in the coexistence frames.

This last AI was generated by the figure below, from IEEE P802.15.2 – Part 15.2: Coexistence of Wireless Personal Area Networks with Other Wireless Devices Operating in Unlicensed Frequency Bands.

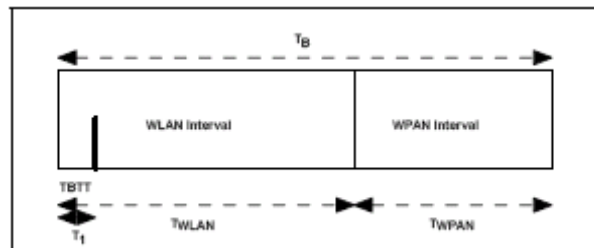


Figure 31—Timing of the WLAN and WPAN subintervals

The recommendation was to change the order, such that the Master for Bursty systems and Shared sub-frame will be placed at the beginning of the frame. However, may be one or two 802.11 Master systems in an area, and this will have as effect a variable position of the Shared sub-frames. In order to avoid this complication we prefer to use in continuation the existing figures, in which the place of the Shared sub-frame is fixed.

1.2 The comment 1044 (Ken) specifies:

Properly label the subframes as UL or DL, not as Tx or Rx.

This comment was already addressed by the text incorporated in D2.

2 Proposed changes

Insert the following text at page 109, line 57 (before the operational rules related to power control).

The rules for the occupancy of the Shared sub-frames by Scheduled or Bursty technologies are:

- Based on the technology used in the Master sub-frames and on the number of Master sub-frames in a Coexistence Frame, it will be created a repetitive pattern for using a given technology in the Shared sub-frames, as follows:
 - o In case that there are three systems acting as Masters

- In case the $CX_MAC_NO \bmod 12 = 4$, the technology used in the Shared sub-frames is identical with the technology used by the system acting as Master in the $CX_MAC_NO = 1$
- In case the $CX_MAC_NO \bmod 12 = 8$, the technology used in the Shared sub-frames is identical with the technology used by the system acting as Master in the $CX_MAC_NO = 2$
- In case the $CX_MAC_NO \bmod 12 = 0$, the technology used in the Shared sub-frames is identical with the technology used by the system acting as Master in the $CX_MAC_NO = 3$
- In case that there are only two systems acting as Masters and they use similar technologies, the remaining sub-frames, with the exception of the Common sub-frame, will be used as Shared sub-frames.
- In case that there are only two systems acting as Masters and they use different technologies, they will occupy the first and the third MAC Frames as Masters. The first system will occupy the second MAC Frame according to the rules of the Shared sub-frames. The other system will use exclusively the fourth MAC Frame, according to the rules of the Shared sub-frames.
- In case that there is only one system acting as Master, it will use the remaining sub-frames, with the exception of the common sub-frames, according to the rules of the Shared sub-frames.

Insert the following text at page 110, line 18

The figure h47' exemplifies the case of one 802.16h systems and one Bursty system, while the figure h47'' shows the situation of two 802.16h systems and one Bursty system. In the described case it is assumed that no system is implementing the CXP and that the 802.16h systems are not implementing "listen-before-send" which would allow them to work in parallel with 802.11 systems. The silence periods for both systems are noted, according their duration, as Quiet Period (QP) or Extended Quiet Period (EQP). Note that for bursty systems there is no DL/UL splitting. In the following two figures the reservation for bursty systems is shown with grey.

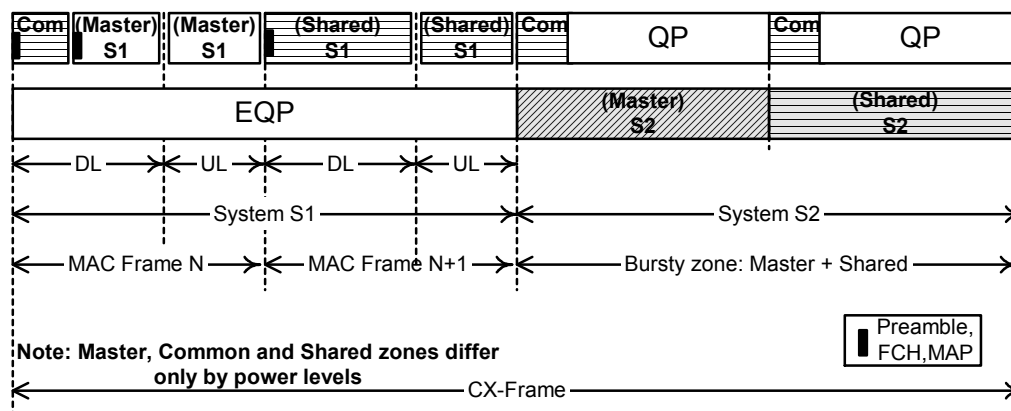


Fig h47' Example of a Coexistence Frame with only two systems

