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Source(s)	Mariana Goldhamer Alvarion ltd. 21A, Ha Barzel Street Tel Aviv E-mail: mariana.goldhamer@alvarion.com
Re:	LB 29
Abstract	
Purpose	[Description of what *specific* action is requested of the 802.16 Working Group or subgroup.]
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16h frame structure for compatibility with 802.16e SS

Mariana Goldhamer
Alvarion Ltd.

Introduction

This contribution related to the Ad-hoc mentioned in Comment 278:

Ad-Hoc: SS working in the 3.7GHz, new licensed European allocation, should be able to work also in 3.7GHz with no SW changes.

Problem

In the OFDM PHY the UL MAP relevance is for the existing frame and the next Frame, while in the OFDMA PHY the UL MAP relevance is only for the next Frame.
The existing CX-Frame approach assumes that the UL MAP relevance is for the same frame.

Solution

Fig. 1 presents the proposed solution, to replace the solution in P802.16h/D3, fig. h48.

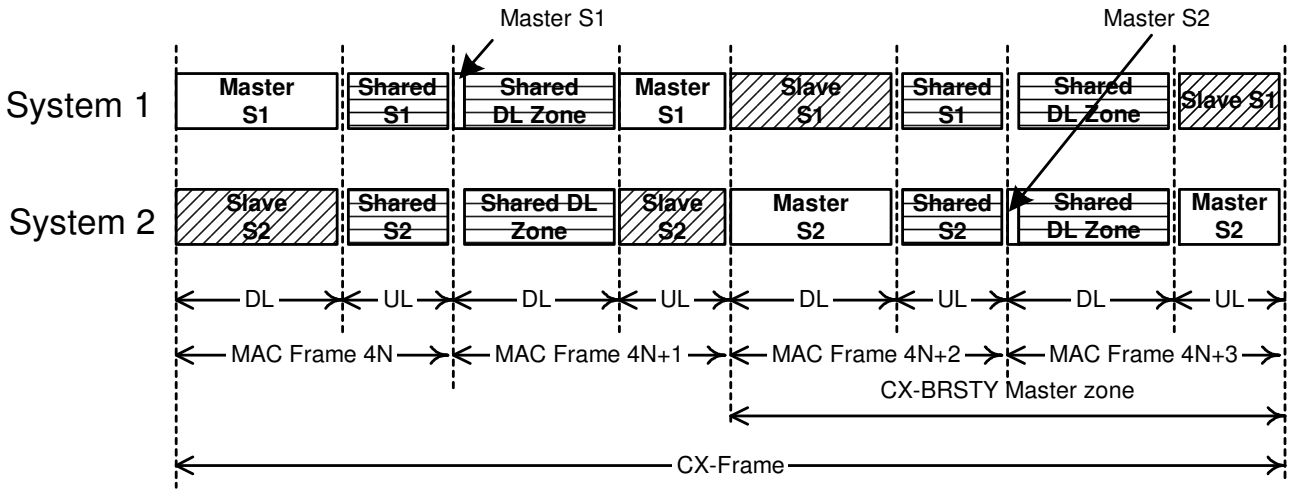

Fig. 1 Proposed CX Frame structure

The main scope was to keep the 4 Frames structure of the CX-Frame. Due to the fact that every OFDMA subscriber needs to be active during two frames, namely the one in which the MAP is transmitted and the one in which the UL activity takes place, it is possible to support only two systems on a channel. The second Frame

shall start in the legacy mode, using a preamble, FCH and MAP.

Downlink

System 1 uses the first two DL sub-frames in the cycle as follows:

- Frame 4N, DL is a full Master DL sub-frame
- Frame 4N+1 is used as DL Master only to transmit the legacy Preamble, FCH and MAPs. For this activity should be reserved four symbols. The Master sub-frame is followed by a Shared downlink sub-frame, to be scheduled as one of the existing Zones by the CX-DL-MAP having extended relevance.

System 2, working in parallel with system 1:

- Frame 4N, DL is a Slave Frame
- Frame 4N+1 starts the transmission as a Shared downlink sub-frame, to be scheduled as one of the existing Zones by the CX-DL-MAP having extended relevance.

If System 2 is an 802.16h system, its operation in the frames 4N=2 and 4N+3 is similar with the operation of System 1 described above.

If System 2 is an 802.11 system, its operation in the frames 4N=2 and 4N+3 is similar with the operation described for the CX Bursty systems.

Up-link

System 1 uses the first two UL sub-frames in the cycle as follows:

- Frame 4N, UL is a Shared sub-frame The UL activity during the Shared UL sub-frame is scheduled by using the CX-DL-MAP having extended relevance.
- Frame 4N+1 is used as UL Master.

System 2, working in parallel with system 1:

- Frame 4N, UL is a Shared sub-frame. The UL activity during the Shared UL sub-frame is scheduled by using the CX-DL-MAP having extended relevance.
- Frame 4N+1 is used as UL Master.

If System 2 is an 802.16h system, its operation in the frames 4N=2 and 4N+3 is similar with the operation of System 1 described above.

If System 2 is an 802.11 system, its operation in the frames 4N=2 and 4N+3 is similar with the operation described for the CX Bursty systems.

Requested Actions

If this approach is accepted, should be created an Ad-Hoc for providing text in all the affected parts of the draft, including the CXCC allocations.