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Re:	LE TG Call for Contributions
Abstract	
Purpose	Approval
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Text improvements in Clause 15

Mariana Goldhamer Alvarion

Introduction

This contribution proposes a number of text improvements.

Specific changes

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— Light Interference, which still does not impact the receiver as it is capable to operate with the same level of performance even as in case that the if-interference were was not present. This is due to the fact that the signal to noise plus interference (SINR) is high enough. See Annex A for a deeper description and an example. It should be noted that for modern systems, such as OFDMA, which can use sub-channelization, even a small noise rise can lead to some loss of performance.

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Interference Victim BS/SS: a BS/SS in an interference victim system is an interference victim BS/SS when the BS/SS is interfered by at least one SS/BS transmitting in this the system's neighborhood-system, and the interference is higher than light interference threshold. The interference victim system could be at the same time an interference source BS/SS to the SS/BS in its neighbor hoodsystem at the same time (e.g. BS in system A/B/C and the interference victim SSs in system A/B/C/D in Error! Reference source not found.), or only an interference victim BS/SS of the interference source SS/BS in its neighbor system (e.g. interference victim BS/SS in System F in Error! Reference source not found.).

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Interference-free sub-frames are initially created based on the selection of one of two possible synchronization rules and control of system power. The Coexistence Protocol includes procedures, which allow interference-free radio resource re-allocation. Some of these procedures use credit tokens and negotiations, such that the interference-free resources may be dynamically apportioned to support the changing character of the traffic.

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Alternatively, if the such a database is not available in this stage, the initializing BS will use the <u>CXCCinitialization coexistence</u> signaling interval (ICSI)_to broadcast its contact information to its coverage area using its maximum capable and allowed operating EIRP.

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In order to isolate interference, repetitive MAC frame structures grouped in a CX Frame are provided in the time domain, which The CX Frame includes Master and Slave sub-frames. During a Master subframe, the data transmission will use the maximum capable and allowed operating EIRP.

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The system specific Master sub-frames can be scheduled during consecutive MAC Frames (*Error! Reference source not found.*). They should start with a <u>preamble and a private MAP</u>, scheduling the traffic for the users that are affected by *harmful interference*, like those in overlapping areas such as the zones A, B, C and D in *Error! Reference source not found.*. The isolation of interference is achieved by the allocation of different transmission/reception times for the traffic in the overlapping areas, such that each system will have its own interference-free "Master" subframe.

However, the diagram of *Error! Reference source not found.* is conceptual and does not necessarily refer to specific geographical layout. Being adaptive, the WirelessMAN BS can control the working conditions of each SS using power control, sub-frame allocation, sectorization and beamforming. Power and interference can also be traded off for working transmission data rate, thus a SS of system 1, for example, can be considered to be interfered by system 2 for a given rate, while the same level of interference could be considered acceptable for a lower operation rate. This particular SS can operate in a setting where it does not interfere with other systems, while for another frame it can be operated with such parameters that it does interfere with other systems and then it will be allocated time in the zone where system 1 is the master. In the latter case it will probably be able to operate at a higher data rate than the first.

The examples in *Error! Reference source not found.* show three systems having the Master sub-frames scheduled in one long MAC Frame or in three consecutive short MAC Frames.during the CX Frame.

The initial frame allocation is defined by a set of possible rules (see *Error! Reference source not found.*). The change of the rules is supported by the Coexistence Protocol (see *Error! Reference source not found.*) and the token protocol (see *Error! Reference source not found.*). See more details in 15.4.2.1.2.

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4) A community should be addressed by a system, during its operational phase, within one or two hops of neighbor relationship, respectively for each system.