IEEE P802.19
Wireless Coexistence

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| Frequency range notation |
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Abstract

This document contains proposed midifications to frequency range notation in section 6.5.

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# Discussion

 WSOs may use frequency in various configurations, such like a single TV channel, a channel which is a part of a TV channel, and multiple channels. Using the information of detailed configuration which WSOs support, a CM may allocate frequency resource more efficiently. This information can be included in the data type of “ListOfSupportedFrequencies” which is used as follows,

 listOfSupportedResources CHOICE {

 -- List of supported channel numbers

 listOfSuppChNumber ListOfSupportedChNumber,

 -- List of supported frequencies

 listOfSuppFrequencies ListOfSupportedFrequencies },

ListOfSupportedFrequencies informs

* Each frequency range the WSO is supporting. Usually this is a list of all non-contiguous bands
* Each bandwidth the WSO is supporting in a given frequency range. There are two possibilities in bandwidth information: the true signal BW or the minimum space the signal requires to operate (channel bandwidth). At least the channel bandwidth has to be given.
* By minimum channel raster the devices in the WSO are able to fine tune the location in the spectrum. This step can be e.g. the min resolution of the synthesizer in the device or min specified step size defined in the radio standard used by the WSO.

# Proposal

Revise the definition of “ListOfSupportedFrequencies” as follows,

ListOfSupportedFrequencies ::= SEQUENCE OF SEQUENCE {

 *-- The frequency borders of each possible sub band or channel*

 *-- Both the sub band and the channel notation are available in CE-CM and CM-CM communication*

 *-- Only the channel notation is available in CM-CDIS communication*

 supportedFreqSBOrChannel FrequencyRange,

 *-- The following two parameters need to be present when supported frequencies are notified per sub channel*

 *-- Bandwidth related information*

 wSOSBWs WSOSupportedBandwidths OPTIONAL,

 *--Min channel raster for fine tuning of frequency*

 *minChRaster INTEGER --Hz, OPTIONAL*

}

FrequencyRange ::= SEQUENCE {

 startFreq INTEGER --Hz,

 stopFreq INTEGER --Hz

}

WSOSupportedBandwidths ::= SEQUENCE of SEQUENCE {

 *-- Maximum number of supported channels at the same time*

 maxNuCH INTEGER,

 *-- True max signal bandwidth*

 maxBWSignal INTEGER --Hz OPTIONAL,

 *-- Maximum supported bandwidth per channel*

 maxCHBW INTEGER –Hz,

 *-- True min signal bandwidth*

 minBWSignal INTEGER --Hz OPTIONAL,

 *-- Minimum supported bandwidth per channel*

 minCHBW INTEGER --Hz,

 *-- Resolution between minCHBW and maxCHBW*

 resolutionSBW INTEGER --Hz

}

END