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, multiple channels. A CM may allocate efficiently frequency resource based on the supported configuration of WSOs. The supported configuration should be specified.

In NetworkCapabilities data type there is a part, which shows the frequency information that a WSO supports:

 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.

# Propose

Revise the definition of “ListOfSupportedFrequencies” as follows,

ListOfSupportedFrequencies ::= SEQUENCE OF SEQUENCE {

 *--the frequency borders of each possible sub band*

 supportedFreqSB FrequencyRange,

 *--bandwidth related information. Optional because in CM to CDIS link this is not sent*

 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