IEEE P802.19  
Wireless Coexistence

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| Proposal to modify message (section 6.4) and data type (section 6.5) definitions for radio environment type information | | | | |
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Abstract

This document contains a proposal what information to exchange between CMs about the coexistence set elements. CoexistenceSetElementInformationAnnouncement is as an example.

Basicly the old information in CoexistenceSetElementInformationAnnouncement is included in data type OwnNetwork.

Other data types are CoexSetNetworks, OtherNetworks, UnusedFrequencies and UnknownFrequencyUsage. These include information about the environment seen by the CE which OwnNetwork information is presented in CoexistenceSetElementInformationAnnouncement.

The proposal relates to comments with CID138 and CID139.

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**SECTION 6.4**

OLD

CoexistenceSetElementInformationAnnouncement ::= SEQUENCE {

-- CE ID of the WSO served by source CM

sourceWSOId OCTET STRING,

-- Network technology, e.g., 802.11af, 802.22

sourceNetwTech NetworkTechnology,

-- WSO type, e.g., fixed, mode 2

networkType NetworkType,

-- List of supported resources: channel numbers or frequencies

listOfSupportedResources CHOICE {

-- List of supported channel numbers

listOfSuppChNumber ListOfSupportedChNumber,

-- List of supported frequencies

listOfSuppFreq ListOfSupportedFrequencies

},

-- List of operating resources: channel numbers or frequencies

listOfOperatingResources CHOICE {

-- List of operating channel numbers

listOfOperChNum ListOfOperatingChNumber,

-- List of operating frequencies including occupancy information

listOfOperFreq ListOfOperatingFrequencies

},

-- WSO capabilities that have an effect on coexistence decisions

sourceNetworkCapabilities NetworkCapabilities,

-- Coexistence service subscription

sourceSubscribedService SubscribedService,

-- Indicates whether this WSO shall be managed by source CM or

-- destination CM

managingCM BOOLEAN,

-- Channel classification information

chClassInfo ChClassInfo OPTIONAL,

-- Indicates whether this WSO finished scheduled time when channel

-- is shared

scheduledTimeEnd BOOLEAN OPTIONAL,

-- Indicates whether the coexistence set element releases resources

-- temporarily or reclaims them

temporaryResource ENUMERATED {release, reclaim} OPTIONAL

}

NEW

-- From CM to CM

CoexistenceSetElementInformationAnnouncement ::= SEQUENCE {

--Identifier of the CE for which information is given

ceID CX\_ID,

--information of the own network

ownNet OwnNetwork,

--802.19.1 type networks

coexNets CoexSetNetworks,

--Other networks outside 802.19.1

otherNets OtherNetworks,

--unused frequency locations

unusedFreqs UnusedFrequencies,

--Unknown frequency usage

unknownUsage UnknownFrequencyUsage

}

**SECTION 6.5**

FrequencyRange ::= SEQUENCE {

startFreq INTEGER,

stopFreq INTEGER

}

OwnNetwork ::= SEQUENCE {

-- CM identifier for a source CE

cMID CxID,

-- CM IP address

cMIPAddress OCTET STRING,

-- CM port number

cMPortNum OCTET STRING,

-- Network identifier, e.g., BSS ID

networkID OCTET STRING,

-- Network technology, e.g., 802.11af, 802.22

networkTechnology NetworkTechnology,

-- Coexistence service subscription

subscribedServ SubscribedService,

-- List of supported resources: channel numbers or frequencies

-- List of allowed channels for the source CE

listOfAllowedTVWSChNum ListOfAllowedTVWSChNumber,

--Frequencies supported by the source CE

listOfSupportedResources CHOICE {

-- List of supported channel numbers

listOfSuppChNumber ListOfSupportedChNumber,

-- List of supported frequencies

listOfSuppFreq ListOfSupportedFrequencies

},

-- WSO capabilities that have an effect on coexistence decisions

sourceNetworkCapabilities NetworkCapabilities,

-- Indicates whether this WSO shall be managed by source CM or

-- destination CM

managingCM BOOLEAN OPTIONAL,

-- Channel classification information

chClassInfo ChClassInfo OPTIONAL,

-- Indicates whether this WSO finished scheduled time when

-- channel is shared

scheduledTimeEnd BOOLEAN OPTIONAL,

-- Indicates whether the coexistence set element releases resources

-- temporarily or reclaims them

temporaryResource ENUMERATED {release, reclaim} OPTIONAL

--Coexistence value of the network

coexistenceValue REAL,

listOfOperatingResourceValues SEQUENCE OF SEQUENCE {

CHOICE {

-- Operating channel number

operChNumber INTEGER,

-- Operating frequency location

operFreq FrequencyRange },

occupancy REAL OPTIONAL,

txSch TxSchedule OPTIONAL,

totalOccupancy REAL OPTIONAL,

channelIsShared BOOLEAN OPTIONAL,

txPowerLimit REAL OPTIONAL

}

}

CoexSetNetworks ::= SEQUENCE OF SEQUENCE {

-- CE identifier of the related WSO

ceID CxID,

-- CM identifier for CE

cMID CxID,

-- CM IP address

cMIPAddress OCTET STRING,

-- CM port number

cMPortNum OCTET STRING,

-- Network identifier, e.g., BSS ID

networkID OCTET STRING,

-- Network technology, e.g., 802.11af, 802.22

networkTechnology NetworkTechnology,

listOfOperatingResourceValues SEQUENCE OF SEQUENCE {

CHOICE {

-- Operating channel number

operChNumber INTEGER,

-- Operating frequency location

operFreq FrequencyRange },

occupancy REAL OPTIONAL,

txSch TxSchedule OPTIONAL,

totalOccupancy REAL OPTIONAL,

channelIsShared BOOLEAN OPTIONAL,

txPowerLimit REAL OPTIONAL

}

}

OtherNetworks ::= SEQUENCE OF SEQUENCE {

-- Network identifier, e.g., BSS ID

networkID OCTET STRING OPTIONAL,

-- Network technology, e.g., 802.11af, 802.22

networkTechnology NetworkTechnology OPTIONAL,

CHOICE {

-- Operating channel number

operChNumber INTEGER,

-- Operating frequency location

operFreq FrequencyRange },

occupancy REAL OPTIONAL

}

UnusedFrequencies ::= SEQUENCE OF SEQUENCE {

CHOICE {

-- Operating channel number

operChNumber INTEGER,

-- Operating frequency location

operFreq FrequencyRange }

}

UnknownFrequencyUsage ::= SEQUENCE OF SEQUENCE {

CHOICE {

-- Operating channel number

operChNumber INTEGER,

-- Operating frequency location

operFreq FrequencyRange }

}