IEEE P802.19  
Wireless Coexistence

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| Annex C Messages | | | | |
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Abstract

This document is a submission to IEEE 802.19 TG1 proposing update to Annex C Messages.

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# Proposed update

*It is proposed to substitute Annex C Messages with the text below.*

IEEE802191Message DEFINITIONS AUTOMATIC TAGS ::= BEGIN

**-----------------------------------------------------------**

**--Imported data types**

**-----------------------------------------------------------**

--Imported data types

IMPORTS

--Coexistence protocol entity ID

CxID,

--Status

Status,

--CxMedia status

CxMediaStatus,

--Coexistence service

CoexistenceService,

--Subscribed service

SubscribedService,

--Network technology

NetworkTechnology,

--Network type

NetworkType,

--Location

Geolocation,

--Discovery information

DiscoveryInformation,

--Coverage area

CoverageArea,

--Installation parameters

InstallationParameters,

--List of available frequencies

ListOfAvailableFrequencies,

--List of operating frequencies

ListOfOperatingFrequencies,

--List of available channel numbers

ListOfAvailableChNumbers,

--List of operating channel numbers

ListOfOperatingChNumbers,

--List of supported frequencies

ListOfSupportedFrequencies,

--Required resource

RequiredResource,

--Operation code for registration

OperationCode,

--List of available frequencies of the subject WSO

ListOfSubjectWSOAvailableFrequencies,

--Transmission schedule

TxSchedule,

--Frequency range

FrequencyRange,

--CM registration

CMRegistration,

--CE registration

CERegistration,

--List of subject CEs

ListOfSubjectCEs,

--List of neighbor CMs transport information

ListOfNeighborCMsTransport,

--List of neighbor CM WSOs

ListOfNeighborCMWSOs,

--List of CEs for reconfiguration

ReconfigListOfCEs

--Coexistence report

CoexistenceReport,

--Channel priority

ChannelPriority,

--Measurement capability

MeasurementCapability,

--List of neighbor CM

ListOfNeighborCM,

--Failed parameters

FailedParameters,

--Channel classification information

ChClassInfo,

--Required information description

ReqInfoDescr,

--Requested information value

ReqInfoValue,

--Event parameters

EventParams,

--Negotiation status

NegotiationStatus,

--Negotiation information

NegotiationInformation

--Winner CM ID list

ListOfWinnerCMID,

-- Slot time position list

ListOfSlotTimePosition

--Measurement description

MeasurementDescription,

--Measurement result

MeasurementResult,

--Mobility Information

MobilityInformation

FROM IEEE802191DataType;

**-----------------------------------------------------------**

**--Message structure, header structure, and payload types**

**-----------------------------------------------------------**

--Message structure

CxMessage ::= SEQUENCE {

-- Message header

header CxHeader,

-- Message payload

payload CxPayload}

--Header

CxHeader ::= CHOICE {

--For announcement

none NULL,

--For request or single response

requestID INTEGER (0..2147483647),

--For multiple responses

multipleResponse SEQUENCE {

--Original request ID

requestID INTEGER (0..2147483647),

--Response number

sequenceNumber INTEGER (0..2147483647),

--True is the response is last

isLastResponse BOOLEAN}}

--Payload types

CxPayload ::= CHOICE {

--WSO subscription request

subscriptionRequest SubscriptionRequest,

--WSO subscription response

subscriptionResponse SubscriptionResponse,

--WSO subscription change request

subscriptionChangeRequest SubscriptionChangeRequest,

--WSO subscription change response

subscriptionChangeResponse SubscriptionChangeResponse,

--CE registration request

ceRegistrationRequest CERegistrationRequest,

--Registration response

registrationResponse RegistrationResponse,

--Reconfiguration request

reconfigurationRequest ReconfigurationRequest,

--Reconfiguration response

reconfigurationResponse ReconfigurationResponse,

--Stop operation announcement

stopOperationAnnouncement StopOperationAnnouncement,

--Stop operation confirm

stopOperationConfirm StopOperationConfirm,

--Coexistence report announcement

coexistenceReportAnnouncement CoexistenceReportAnnouncement,

--Coexistence report confirm

coexistenceReportConfirm CoexistenceReportConfirm,

--Coexistence report request

coexistenceReportRequest CoexistenceReportRequest,

--Coexistence report response

coexistenceReportResponse CoexistenceReportResponse,

--CM registration request

cmRegistrationRequest CMRegistrationRequest,

--Coexistence set information announcement

coexistenceSetInformationAnnouncement CoexistenceSetInformationAnnouncement,

--Coexistence set information confirm

coexistenceSetInformationConfirm CoexistenceSetInformationAnnouncement,

--Coexistence set information request

coexistenceSetInformationRequest CoexistenceSetInformationRequest,

--Coexistence set information response

coexistenceSetInformationResponse CoexistenceSetInformationResponse,

--Coexistence set element information announcement

coexistenceSetElementInformationAnnouncement CoexistenceSetElementInformationAnnouncement,

--Coexistence set element information confirm

coexistenceSetElementInformationConfirm CoexistenceSetElementInformationConfirm,

--Coexistence set element information request

coexistenceSetElementInformationRequest CoexistenceSetElementInformationRequest,

--Coexistence set element information response

coexistenceSetElementInformationResponse CoexistenceSetElementInformationResponse,

--Coexistence set element reconfiguration request

coexistenceSetElementReconfigurationRequest CoexistenceSetElementReconfigurationRequest,

--Coexistence set element reconfiguration response

coexistenceSetElementReconfigurationResponse CoexistenceSetElementReconfigurationResponse,

--CM Reconfiguration request

cmReconfigurationRequest CMReconfigurationRequest,

--CM Reconfiguration response

cmReconfigurationResponse CMReconfigurationResponse,

--WSO channel classification request

channelClassificationRequest ChannelClassificationRequest,

-- WSO channel classification response

channelClassificationResponse ChannelClassificationResponse,

--CM channel classification request

cmChannelClassificationRequest CMChannelClassificationRequest,

-- CM channel classification response

cmChannelClassificationResponse CMChannelClassificationResponse,

-- WSO channel classification update

channelClassificationAnnouncement ChannelClassificationAnnouncement,

--Available channel list request from WSO

availableChannelsRequest AvailableChannelsRequest,

-- Available channel list response from WSO

availableChannelsResponse AvailableChannelsResponse,

--Information acquiring request

infoAcquiringRequest InforAcquiringRequest,

--Information acquiring response

infoAcquiringResponse InforAcquiringResponse,

-- Event indication

eventIndication EventIndication,

-- Event confirm

eventConfirm EventConfirm,

--WSO measurement request

measurementRequest MeasurementRequest,

--WSO measurement response

measurementResponse MeasurementResponse,

--WSO measurement confirm

measurementConfirm MeasurementConfirm,

--Master/Slave CM request

masterCMRequest MasterCMRequest,

--Master/Slave CM response

masterCMResponse MasterCMResponse,

--Master/Slave CM configuration request

masterSlaveCMconfigurationRequest MasterSlaveCMconfigurationRequest,

--Master/Slave CM configuration response

masterSlaveCMconfigurationResponse MasterSlaveCMconfigurationResponse,

--Negotiation request

negotiationRequest NegotiationRequest,

--Negotiation announcement

negotiationAnnouncement NegotiationAnnouncement,

--Deregistration request

wsoDeregistrationRequest WsoDeregistrationRequest,

-- Deregistration response

wsoDeregistrationResponse WsoDeregistrationResponse

}

**-----------------------------------------------------------**

**--WSO and CM subscription**

**-----------------------------------------------------------**

--WSO subscription request

SubscriptionRequest ::= SEQUENCE {

--WSO subscription ID

clientID IA5String OPTIONAL,

--WSO subscription password

clientPassword IA5String OPTIONAL,

--Coexistence service to which WSO is subscribed

coexistenceService CoexistenceService OPTIONAL,

--Coexistence service to which WSO is subscribed

subscribedService SubscribedService OPTIONAL}

--WSO subscription response

SubscriptionResponse ::= SEQUENCE {

--CM subscription ID

serverID IA5String OPTIONAL,

--CM subscription password

serverPassword IA5String OPTIONAL,

--Subscription status

--noError means subscription is confirmed

--rejected means subscription is not confirmed

status Status OPTIONAL,

--Status

status CxMediaStatus OPTIONAL}

**-----------------------------------------------------------**

**--WSO subscription change**

**-----------------------------------------------------------**

--Request to change subscription

SubscriptionChangeRequest ::= SEQUENCE {

--Coexistence service to which WSO is subscribed

subscribedService SubscribedService}

--Response for subscription change

SubscriptionChangeResponse :: = SEQUENCE {

--Status

status CxMediaStatus}

**-----------------------------------------------------------**

**--WSO registration**

**-----------------------------------------------------------**

CERegistrationRequest ::= SEQUENCE OF SEQUENCE {

--New registration, registration update or deregistration

operationCode OperationCode,

--WSO ID

wsoID OCTET STRING,

--Network ID

networkID OCTET STRING OPTIONAL,

--Network technology

networkTechnology NetworkTechnology OPTIONAL,

--Network type

networkType NetworkType OPTIONAL,

--Location

geolocation Geolocation OPTIONAL,

--Discovery information

discoveryInformation DiscoveryInformation OPTIONAL,

--Coverage area

coverageArea CoverageArea OPTIONAL,

-- Mobility information

mobilityInformation MobilityInformation OPTIONAL,

--Installation parameters

installationParameters InstallationParameters OPTIONAL,

--List of available frequencies

listOfAvailableFrequencies ListOfAvailableFrequencies OPTIONAL,

--Transmission schedule is supported or not

txScheduleSupported BOOLEAN OPTIONAL,

--List of operating frequencies

listOfOperatingFrequencies ListOfOperatingFrequencies OPTIONAL,

--List of available channel number

listOfAvailableChNumbers ListOfAvailableChNumbers OPTIONAL,

--List of supported channel number

listOfSupportedChNumbers SEQUENCE OF INTEGER OPTIONAL,

-- List of supported frequencies

listOfSuppFrequencies ListOfSupportedFrequencies OPTIONAL,

--List of operating channel number

listOfOperatingChNumbers ListOfOperatingChNumbers OPTIONAL,

--Required resource

requiredResource RequiredResource OPTIONAL,

--Measurement capability

measurementCapability MeasurementCapability OPTIONAL}

--Registration response

RegistrationResponse ::= SEQUENCE {

--Registration status

status Status OPTIONAL}

**-----------------------------------------------------------**

**--WSO reconfiguration**

**-----------------------------------------------------------**

--Reconfiguration request

ReconfigurationRequest ::= SEQUENCE OF SEQUENCE {

--WSO ID

wsoID OCTET STRING OPTIONAL,

--Operating frequency

operatingFrequency FrequencyRange OPTIONAL,

--List of operating channel number

listOfOperatingChNumber SEQUENCE OF INTEGER OPTIONAL,

--Transmission power limit

txPowerLimit REAL OPTIONAL,

--Indication whether the channel is shared

channelIsShared BOOLEAN OPTIONAL,

--Transmission schedule

txSchedule TxSchedule OPTIONAL,

-- Channel classification information

chClassInfo ChClassInfo OPTIONAL,

-- Mobility information

mobilityInformation MobilityInformation OPTIONAL

}

--Reconfiguration response

ReconfigurationResponse ::= SEQUENCE OF SEQUENCE {

--WSO ID

wsoID OCTET STRING OPTIONAL,

--Reconfiguration status

status Status OPTIONAL,

--Status

status BOOLEAN OPTIONAL,

--Failed parameters

failedParameters FailedParameters OPTIONAL}

**-----------------------------------------------------------**

**--Stop operation**

**-----------------------------------------------------------**

--Stop operation announcement

StopOperationAnnouncement ::= SEQUENCE {}

--Stop operation confirm

StopOperationConfirm ::= SEQUENCE {

--Stop operation status

status Status}

**-----------------------------------------------------------**

**--Coexistence report**

**-----------------------------------------------------------**

--Coexistence report announcement

CoexistenceReportAnnouncement ::= SEQUENCE OF SEQUENCE {

--Subject WSO ID

wsoID OCTET STRING,

--List of subject WSO available frequencies

listOfSubjectWSOAvailableFrequencies ListOfSubjectWSOAvailableFrequencies}

--Coexistence report confirm

CoexistenceReportConfirm ::= SEQUENCE {

--Coexistence report status

status Status}

--Request for coexistence report

CoexistenceReportRequest ::= SEQUENCE {}

--Response for coexistence report

CoexistenceReportResponse ::= SEQUENCE {

--Coexistence report information

coexistenceReport CoexistenceReport,

--Channel priority information

channelPriority ChannelPriority}

**-----------------------------------------------------------**

**--CM registration**

**-----------------------------------------------------------**

--CM registration request

CMRegistrationRequest ::= SEQUENCE {

--CM registration

cmRegistration CMRegistration OPTIONAL,

--CE registration

ceRegistration CERegistration OPTIONAL,

--Operationg code

operationCode OperationCode OPTIONAL,

--CE ID

ceID CxID OPTIONAL,

--Network ID

networkID OCTET STRING OPTIONAL,

--Network technology

networkTechnology NetworkTechnology OPTIONAL,

--Network type

networkType NetworkType OPTIONAL,

--Discovery information

discoveryInformation DiscoveryInformation OPTIONAL,

--List of supported channel number

listOfSupportedChNumbers SEQUENCE OF INTEGER OPTIONAL,

-- List of supported frequencies

listOfSuppFrequencies ListOfSupportedFrequencies OPTIONAL

}

**-----------------------------------------------------------**

**--Coexistence set information**

**-----------------------------------------------------------**

--Coexistence set information announcement

CoexistenceSetInformationAnnouncement ::= SEQUENCE {

--List of subject CEs

listOfSubjectCEs ListOfSubjectCEs,

--List of neighbor CMs transport information mentioned inside the list of subject CEs

listOfNeighborCMsTransport ListOfNeighborCMsTransport}

--Coexistence set information confirm

CoexistenceSetInformationConfirm ::= SEQUENCE {

--Coexistence set information status

status Status}

--Request for coexistence set information

CoexistenceSetInformationRequest ::= SEQUENCE {

listOfNetworkID SEQUENCE OF OCTET STRING}

--Response for coexistence set information

CoexistenceSetInformationResponse ::= SEQUENCE {

--Network ID

coexistenceReport CoexistenceReport,

--List of neighbor CM

listOfneighborCM ListOfneighborCM}

**-----------------------------------------------------------**

**--Coexistence set element information**

**-----------------------------------------------------------**

--Coexistence set element information announcement

CoexistenceSetElementInformationAnnouncement ::= SEQUENCE OF SEQUENCE{

--CE ID

ceID CxID,

--Coexistence service

coexistenceService CoexistenceService OPTIONAL,

--List of neighbor CM WSOs

listOfNeighborCMWSOs ListOfNeighborCMWSOs OPTIONAL

}

--Coexistence set element information confirm

CoexistenceSetElementInformationConfirm ::= SEQUENCE {

--Coexistence set element information status

status Status}

--Coexistence set element information request

CoexistenceSetElementInformationRequest ::= SEQUENCE OF SEQUENCE{

--CE ID

ceID CxID,

--List of neighbor CM WSOs

listOfNeighborCMWSOs ListOfNeighborCMWSOs

}

--Coexistence set element information response

CoexistenceSetElementInformationResponse ::= SEQUENCE OF SEQUENCE{

--CE ID

ceID CxID,

--Coexistence service

coexistenceService CoexistenceService,

--List of neighbor CM WSOs

listOfNeighborCMWSOs ListOfNeighborCMWSOs

}

**-----------------------------------------------------------**

**--Coexistence set element reconfiguration**

**-----------------------------------------------------------**

--Coexistence set element reconfiguration request

CoexistenceSetElementReconfigurationRequest ::= SEQUENCE{

--List of subject CEs

reconfigListOfSubjectCEs ReconfigListOfCEs,

--List of neighbor CEs

reconfigListOfNeighborCEs ReconfigListOfCEs

}

--Coexistence set element reconfiguration response

CoexistenceSetElementReconfigurationResponse ::= SEQUENCE{

--Indicates whether the suggested reconfiguration is accepted or not

requestIsAccepted BOOLEAN

}

**-----------------------------------------------------------**

**--WSO reconfiguration for another CM**

**-----------------------------------------------------------**

--Reconfiguration request

CMReconfigurationRequest ::= SEQUENCE {

--Indication for CE to be reconfigured

reconfigTarget CxID,

--List of operating channel number

listOfOperatingChNumber SEQUENCE OF INTEGER,

--Transmission power limitation

txPowerLimit REAL,

--Indication whether the channel is shared

channelIsShared BOOLEAN,

--Transmission schedule

txSchedule TxSchedule ,

-- Channel classification information

chClassInfo ChClassInfo}

--Reconfiguration response

ReconfigurationResponse ::= SEQUENCE {

--Indication for CE to be reconfigured

reconfigTarget CxID,

--Status

status BOOLEAN

--Failed parameters

failedParameters FailedParameters}

**-----------------------------------------------------------**

**--Channel classification**

**-----------------------------------------------------------**

--Channel classification request

ChannelClassificationRequest ::= SEQUENCE {

-- List of network ID

listOfNetworkID SEQUENCE OF OCTET STRING}

-- Channel classification response

ChannelClassificationResponse ::= SEQUENCE OF SEQUENCE{

-- Network ID

networkID OCTET STRING

--Channel classification information

chClassInfo ChClassInfo}

--CM Channel classification request

CMChannelClassificationRequest ::= SEQUENCE {

-- List of network ID

listOfNetworkID SEQUENCE OF OCTET STRING}

-- CM Channel classification response

CMChannelClassificationResponse ::= SEQUENCE OF SEQUENCE{

-- Network ID

networkID OCTET STRING

--Channel classification information

chClassInfo ChClassInfo}

**-----------------------------------------------------------**

**--Channel classification update**

**-----------------------------------------------------------**

--Channel classification update

ChannelClassificationAnnouncement ::= SEQUENCE OF SEQUENCE {

-- Network ID

networkID OCTET STRING

--Channel classification information

chClassInfo ChClassInfo}

**-----------------------------------------------------------**

**--Information acquiring from another CM**

**-----------------------------------------------------------**

-- Information acquiring request

InfoAcquringRequest ::= SEQUENCE {

ceID CxID,

listOfReqInfoDescr SEQUENCE OF ReqInfoDescr}

-- Information acquiring response

InfoAcquringResponse ::= SEQUENCE {

ceID CxID,

reqInfoValue ReqInfoValue}

**-----------------------------------------------------------**

**--Available channel list from WSO**

**-----------------------------------------------------------**

-- Available channel request

AvailableChannelsRequest ::= SEQUENCE {}

-- Available channel response

AvailableChannelsResponse ::= SEQUENCE {

--Available channel list information

listOfAvailableChNumbers ListOfAvailableChNumbers}

**-----------------------------------------------------------**

**--Event indication**

**-----------------------------------------------------------**

-- Event indication

EventIndication ::= SEQUENCE {

-- Event indication information

eventParams EventParams}

-- Event confirm

EventConfirm ::= SEQUENCE {}

**-----------------------------------------------------------**

**--Measurement Request**

**-----------------------------------------------------------**

-- Measurement request

MeasurementRequest ::= SEQUENCE {

-- Measurement request information

measurementDescription MeasurementDescription}

**-----------------------------------------------------------**

**-- Measurement results**

**-----------------------------------------------------------**

-- Measurement response

MeasurementResponse ::= SEQUENCE OF SEQUENCE{

-- Measurement results

measurementResult MeasurementResult}

**-----------------------------------------------------------**

**-- Negotiation**

**-----------------------------------------------------------**

-- Negotiation request

NegotiationRequest ::= SEQUENCE {

-- Negotiation status

negotiationStatus NegotiationStatus,

-- Negotiation information

negotiationInformation NegotiationInformation}

-- Negotiation announcement

NegotiationAnnouncement ::= SEQUENCE {

-- Winner CM ID list

listOfWinnerCMID ListOfWinnerCMID,

-- Slot time position list

listOfSlotTimePosition ListOfSlotTimePosition}

**-----------------------------------------------------------**

**--Master/Slave CM selection**

**-----------------------------------------------------------**

--Master/Slave CM selection request

MasterCMRequest ::= SEQUENCE {

--List of CEs managed by CM that intends to become slave CM

listOfCEs SEQUENCE OF CxID}

-- Master/Slave CM selection response

MasterCMResponse ::= SEQUENCE {

--Status

status CxMediaStatus}

**-----------------------------------------------------------**

**--Master/Slave CM configuration**

**-----------------------------------------------------------**

--Master/Slave CM configuration request

MasterSlaveCMconfigurationRequest ::= SEQUENCE {

-- List of CEs managed by CM

listOfCEs SEQUENCE OF CxID}

--Master/Slave CM configuration response

MasterSlaveCMconfigurationResponse ::= SEQUENCE {

--Operationg code

operationCode OperationCode,

--Slave CE ID

slaveCeID CxID,

--Network ID

networkID OCTET STRING,

--Network technology

networkTechnology NetworkTechnology,

--Network type

networkType NetworkType

--Discovery information

discoveryInformation DiscoveryInformation,

--Transmission schedule is supported or not

txScheduleSupported BOOLEAN,

--List of available channel number

listOfAvailableChNumbers ListOfAvailableChNumbers,

--List of supported channel number

listOfSupportedChNumbers SEQUENCE OF INTEGER,

--List of operating channel number

listOfOperatingChNumbers ListOfOperatingChNumbers,

--Required resource

requiredResource RequiredResource

--Measurement capability

measurementCapability MeasurementCapability}

**-----------------------------------------------------------**

**--WSO deregistration**

**-----------------------------------------------------------**

--Deregistration request

WsoDeregistrationRequest ::= SEQUENCE {

--Flag of wso deregistration

wsoDeregistration BOOLEAN}

--Deregistration response

WsoDeregistrationResponse ::= SEQUENCE {

--Status

status CxMediaStatus}

END