IEEE 802.19.1a  
Wireless Coexistence

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| Text proposal on Annex C | | | | |
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Abstract

This document provides text proposal on Annex C.

Text in this submission is made by 19-16/0016r1, 19-16/0020r1, 19-16/0022r1, 19-16/0051r1, 19-16/0053r1, 19-16/0055r1, 19-16/0058r0, 19-16/0060r2, 19-16/0083r0, 19-16/0084r0, 19-16/0086r0 and 19-16/0088r0 with some changes.

Each message format is based on the other text proposal for section 6 (19-16/0090r0).

# **Annex C (normative)** Messages for IEEE 802.19.1a

IEEE802191aMessage DEFINITIONS AUTOMATIC TAGS ::= BEGIN

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

**--Imported data types**

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

--Imported data types

IMPORTS

--Coexistence protocol entity ID

CxID,

--Status

Status,

--CxMedia status

CxMediaStatus,

--Coexistence service

CoexistenceService,

--Network technology

NetworkTechnology,

--Network type

NetworkType,

--Location

Geolocation,

--Region

Region,

--Coverage area

CoverageArea,

--Installation parameters

InstallationParameters,

--List of available frequencies

ListOfAvailableFrequencies,

--List of operating frequencies

ListOfOperatingFrequencies,

--List of supported frequencies

ListOfSupportedFrequencies,

--Required resource

RequiredResource,

--Operation code for registration

OperationCode,

--Frequency range

FrequencyRange,

--CM registration

CMRegistration,

--CE registration

CERegistration,

--Coexistence report

CoexistenceReport,

--List of coexistence reports

ListOfCoexistenceReports,

--Measurement capability

MeasurementCapability,

--List of neighbor CMs

ListOfNeighborCMs,

--Mobility Information

MobilityInformation,

--Entity profile

EntityProfile,

--List of master CM candidate

ListOfMasterCMCandidates,

--List of desired performance

ListOfDesiredPerformances,

SpecRequestModification

FROM IEEE802191aDataType;

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

**--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 {

--CM association request

cmAssociationRequest CMAssociationRequest,

--CM association response

cmAssociationResponse CMAssociationResponse,

--GCO subscription request

subscriptionRequest SubscriptionRequest,

--GCO subscription response

subscriptionResponse SubscriptionResponse,

--GCO subscription change request

subscriptionChangeRequest SubscriptionChangeRequest,

--GCO subscription change response

subscriptionChangeResponse SubscriptionChangeResponse,

--CE registration request

ceRegistrationRequest CERegistrationRequest,

--Registration response

registrationResponse RegistrationResponse,

--Reconfiguration request

reconfigurationRequest ReconfigurationRequest,

--Reconfiguration response

reconfigurationResponse ReconfigurationResponse,

--Coexistence report request

coexistenceReportRequest CoexistenceReportRequest,

--Coexistence report response

coexistenceReportResponse CoexistenceReportResponse,

--CM registration request

cmRegistrationRequest CMRegistrationRequest,

--Coexistence set information request

coexistenceSetInformationRequest CoexistenceSetInformationRequest,

--Coexistence set information response

coexistenceSetInformationResponse CoexistenceSetInformationResponse,

--CM Reconfiguration request

cmReconfigurationRequest CMReconfigurationRequest,

--CM Reconfiguration response

cmReconfigurationResponse CMReconfigurationResponse,

--Master/Slave CM configuration request

masterSlaveCMconfigurationRequest MasterSlaveCMconfigurationRequest,

--Master/Slave CM configuration response

masterSlaveCMconfigurationResponse MasterSlaveCMconfigurationResponse,

-- CE Proxy Coexistence Service Request

ceProxyCoexistenceServiceRequest CEProxyCoexistenceServiceRequest,

-- CM Proxy Coexistence Service Request

cmProxyCoexistenceServiceRequest CMProxyCoexistenceServiceRequest,

--Inter-CM association request

interCMAssociationRequest InterCMAssociationRequest,

--Inter-CM association response

interCMAssociationResponse InterCMAssociationResponse,

--Inter-COE association request

interCOEAssociationRequest InterCOEAssociationRequest,

--Inter-COE association response

interCOEAssociationResponse InterCOEAssociationResponse,

--Operating frequency information request

operatingFreqInformationRequest OperatingFreqInformationRequest,

--Operating frequency information response

operatingFreqInformationResponse OperatingFreqInformationResponse,

-- Inter-COE operating frequency information request

interCOEOperatingFreqInformationRequest InterCOEOperatingFreqInformationRequest,

-- Inter-COE operating frequency information request

interCOEOperatingFreqInformationResponse InterCOEOperatingFreqInformationResponse,

...

}

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

**--CM Association**

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

CMAssociationRequest ::= SEQUENCE {

--GCO subscription ID

clientID IA5String OPTIONAL,

...

}

CMAssociationResponse ::= SEQUENCE {

--Status

status Status OPTIONAL,

...

}

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

**--GCO and CM subscription**

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

--GCO subscription request

SubscriptionRequest ::= SEQUENCE {

--GCO subscription ID

clientID IA5String OPTIONAL,

--GCO subscription password

clientPassword IA5String OPTIONAL,

--Coexistence service to which GCO is subscribed

coexistenceService CoexistenceService OPTIONAL

}

--GCO subscription response

SubscriptionResponse ::= SEQUENCE {

--CM subscription ID

serverID IA5String OPTIONAL,

--CM subscription password

serverPassword IA5String OPTIONAL,

--Subscription status

status Status OPTIONAL

}

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

**--GCO subscription change**

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

--Request to change subscription

SubscriptionChangeRequest ::= SEQUENCE {

--Coexistence service to which GCO is subscribed

coexistenceService CoexistenceService OPTIONAL

}

--Response for subscription change

SubscriptionChangeResponse :: = SEQUENCE {

--Status

cxMediaStatus CxMediaStatus OPTIONAL

}

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

**--GCO registration**

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

CERegistrationRequest ::= SEQUENCE OF SEQUENCE {

--New registration, registration update or deregistration

operationCode OperationCode OPTIONAL,

--GCO ID

gcoID OCTET STRING OPTIONAL,

--Network ID

networkID OCTET STRING OPTIONAL,

--GCO Descriptor (Profile 3)

gcoDescriptor GCODescriptor 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 supported frequencies

listOfSuppFrequencies ListOfSupportedFrequencies OPTIONAL,

--Required resource

requiredResource RequiredResource OPTIONAL,

--Measurement capability

measurementCapability MeasurementCapability OPTIONAL,

--List of desired performance

listOfDesiredPerformances ListOfDesiredPerformances OPTIONAL,

--Spectrum transition capability

spectrumTransitionCapability BOOLEAN OPTIONAL,

--Operation region

operationRegion Range OPTIONAL

}

--Registration response

RegistrationResponse ::= SEQUENCE {

--Registration status

status Status OPTIONAL,

--Registration update duration [s]

registrationUpdateDuration REAL OPTIONAL

}

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

**--GCO reconfiguration**

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

--Reconfiguration request

ReconfigurationRequest ::= SEQUENCE OF SEQUENCE {

--GCO ID

gcoID OCTET STRING OPTIONAL,

--List of operating frequencies and operation parameters to be configured

listOfOperatingFrequencies ListOfOperatingFrequencies OPTIONAL,

--Network technology to be configured

newNetworkTechnology NetworkTechnology OPTIONAL,

specRequestModification SpecRequestModification OPTIONAL

}

--Reconfiguration response

ReconfigurationResponse ::= SEQUENCE OF SEQUENCE {

--GCO ID

gcoID OCTET STRING OPTIONAL,

--Reconfiguration status

status Status OPTIONAL,

--list of available frequencies

listOfAvailableFrequencies ListOfAvailableFrequencies OPTIONAL

}

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

**--Coexistence report**

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

--Response for coexistence report

CoexistenceReportResponse ::= SEQUENCE {

--Coexistence report information

coexistenceReport CoexistenceReport OPTIONAL,

--List of coexistence report

listOfCoexistenceReports ListOfCoexistenceReports OPTIONAL

}

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

**--CM registration**

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

--CM registration request

CMRegistrationRequest ::= SEQUENCE {

--CM profile

cmProfile EntityProfile OPTIONAL,

--CM registration

cmRegistration CMRegistration OPTIONAL,

--CE registration

ceRegistration CERegistration OPTIONAL,

--Operation code

operationCode OperationCode OPTIONAL,

--CM ID

cmID CxID OPTIONAL,

--Maximum number of controllable GCO

maximumNumberOfControllableGCO INTEGER OPTIONAL

}

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

**--Coexistence set information**

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

--Request for coexistence set information

CoexistenceSetInformationRequest ::= SEQUENCE {

--List of network IDs

listOfNetworkIDs SEQUENCE OF OCTET STRING OPTIONAL,

--Operation code

operationCode OperationCode OPTIONAL

}

--Response for coexistence set information

CoexistenceSetInformationResponse ::= SEQUENCE {

--Network ID

networkID OCTET STRING OPTIONAL,

--List of neighbor CMs

listOfNeighborCMs listOfNeighborCMs OPTIONAL,

--List of master CM candidates

listOfMasterCMCandidates ListOfMasterCMCandidates OPTIONAL

}

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

**--GCO reconfiguration for another CM**

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

--CM Reconfiguration request

CMReconfigurationRequest ::= SEQUENCE {

--Network technology to be configured

newNetworkTechnology NetworkTechnology OPTIONAL,

--GCO ID

gcoID OCTET STRING OPTIONAL,

--Target CE ID

ceID CxID OPTIONAL,

--List of operating frequencies and operation parameters to be configured

listOfOperatingFrequencies ListOfOperatingFrequencies OPTIONAL

}

--CM Reconfiguration response

CMReconfigurationResponse ::= SEQUENCE {

--Status

status Status OPTIONAL

}

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

**--Master/Slave CM configuration**

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

--Master/Slave CM configuration request

MasterSlaveCMConfigurationRequest ::= SEQUENCE {

--CM ID

cmID CxID OPTIONAL,

--Operation code

operationCode OperationCode OPTIONAL,

--CM profile

cmProfile EntityProfile OPTIONAL,

--CE registration information

ceRegistration CERegistration OPTIONAL

}

--Master/Slave CM configuration response

MasterSlaveCMConfigurationResponse ::= SEQUENCE {

--Status

status Status OPTIONAL

}

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

**--Proxy coexistence service**

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

--CEProxyCoexistenceServiceRequest

CEProxyCoexistenceServiceRequest ::= SEQUENCE {

--CE ID

ceID CxID OPTIONAL,

--List of GCOs

listOfGCOs ListOfGCOs OPTIONAL,

...

}

--CMProxyCoexistenceServiceRequest

CMProxyCoexistenceServiceRequest ::= SEQUENCE {

--CM ID

cmID CxID OPTIONAL,

--List of CEs

listOfCEs ListOfCEs OPTIONAL,

...

}

--InterCMAssociationRequest

InterCMAssociationRequest ::= SEQUENCE {

--CM ID

cmID CxID,

--Management region of the CM

managementRegion Region OPTIONAL

}

--InterCMAssociationResponse

InterCMAssociationResponse ::= SEQUENCE {

--status of request processing

status Status,

--List of accessible CMs

listOfAccessibleCMs ListOfAccessibleCMs OPTIONAL

}

-- OperatingFreqInformationRequest

OperatingFreqInformationRequest ::= SEQUENCE {

--CM ID

cmID CxID,

--region information

region Region

}

-- OperatingFreqInformationResponse

OperatingFreqInformationResponse ::= SEQUENCE {

--Status of request processing

status Status,

--List of coexistence reports

listOfCoexistenceReports ListOfCoexistenceReports

}

-- InterCOEAssociationRequest

InterCOEAssociationRequest ::= SEQUENCE {

--COE ID

coeID CxID,

--InterCMAssociationRequest

interCMAssociationRequest InterCMAssociationRequest

}

-- InterCOEOperatingFreqInformationRequest

InterCOEOperatingFreqInformationRequest ::= SEQUENCE {

--COE ID

coeID CxID,

--OperatingFreqInformationRequest

operatingFreqInformationRequest OperatingFreqInformationRequest

}

-- InterCOEOperatingFreqInformationResponse

InterCOEOperatingFreqInformationResponse ::= SEQUENCE {

--COE ID

coeID CxID,

--OperatingFreqInformationResponse

operatingFreqInformationResponse OperatingFreqInformationResponse

}

END