**IEEE P802.19**

**Wireless Coexistence**

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| Project | IEEE P802.19.1 Rev | |
| Title | **Text Proposal for Annex B of IEEE 802.19.1 Rev** | |
| Date Submitted | September 13, 2017 | |
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| Re: | [] | |
| Abstract | Text Proposal for Annex A of IEEE 802.19.1 Rev | |
| Purpose | [] | |
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# **Executive Summary**

This submission provides the text proposal for Annex B of IEEE 802.19.1 Rev.

The proposal contains the followings:

* Merge ASN.1 codes of 802.19.1 and 802.19.1a so as not to conflict each other.
* Fix ASN.1 compiling error in the existing text of Annex B of 802.19.1
* Editorial changes for better readability

**------------------------------------------- Proposed Changes ---------------------------------------**

# **(normative) Primitives**

### **Transport SAP**

IEEE80219TRSAPPrimitive DEFINITIONS AUTOMATIC TAGS::= BEGIN

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

**--Imported data types**

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

--Imported data types

IMPORTS

--Coexistence protocol entity ID

CxID,

--Status

Status

FROM IEEE802191DataType;

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

**--Transport service configuration**

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

--Transport service configuration request

TrConfigurationRequest ::= SEQUENCE {

--Source ID

sourceID CxID OPTIONAL,

--Destination ID

destinationID CxID OPTIONAL,

--Destination IP address

destinationIPAddress OCTET STRING OPTIONAL,

--Destination port number

destinationPortNumber INTEGER OPTIONAL

}

--Transport service configuration response

TrConfigurationResponse ::= SEQUENCE {

--Destination ID

destinationID CxID OPTIONAL,

--Configuration status

status Status OPTIONAL

}

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

**--Connection establishment**

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

--Request for connection

TrConnectionRequest ::= SEQUENCE {

--Source ID

sourceID CxID OPTIONAL,

--Destination ID

destinationID CxID OPTIONAL,

--Keep alive interval

keepAliveInterval INTEGER OPTIONAL

}

--Indication of the received connection request

TrConnectionIndication ::= SEQUENCE {

--Source ID

sourceID CxID OPTIONAL

}

--Response to the received connection request

TrConnectionResponse ::= SEQUENCE {

--Destination ID

destinationID CxID OPTIONAL,

--Connection status

status Status OPTIONAL

}

--Confirmation to the connection request

TrConnectionConfirm ::= SEQUENCE {

--Source ID

sourceID CxID OPTIONAL,

--Connection status

status Status OPTIONAL

}

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

**--Connection termination**

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

--Connection termination request

TrDisconnectionRequest ::= SEQUENCE {

--Destination ID

destinationID CxID OPTIONAL

}

--Connection termination indication

TrDisconnectionIndication ::= SEQUENCE {

--Source ID

sourceID CxID OPTIONAL

}

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

**--Sending a coexistence protocol message**

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

--Request to send coexistence protocol message

TrSendRequest ::= SEQUENCE {

--Destination ID

destinationID CxID OPTIONAL,

--Encoded coexistence protocol message

cxMessage OCTET STRING OPTIONAL

}

--Confirmation of sending coexistence protocol message

TrSendConfirm ::= SEQUENCE {

--Destination ID

destinationID CxID OPTIONAL,

--Status of sending coexistence protocol message

status Status OPTIONAL

}

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

**--Receiving a coexistence protocol message**

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

--Indication of received coexistence protocol message

TrReceiveIndication ::= SEQUENCE {

--Source ID

sourceID CxID OPTIONAL,

--Encoded coexistence protocol message

cxMessage OCTET STRING OPTIONAL

}

END

### **Coexistence Media SAP**

IEEE80219MEDIASAPPrimitive DEFINITIONS AUTOMATIC TAGS::= BEGIN

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

**--Imported data types**

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

--Imported data types

IMPORTS

--Status

Status,

--CxMedia status

CxMediaStatus,

--Coexistence service

CoexistenceService,

--Subscribed service

SubscribedService,

--Network technology

NetworkTechnology,

--Network type

NetworkType,

--Geolocation

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,

--List of subject WSO available frequencies

ListOfSubjectWSOAvailableFrequencies,

--Transmission schedule

TxSchedule,

--Coexistence protocol entity ID

CxID,

--Frequency range

FrequencyRange,

--Coexistence report

CoexistenceReport,

--Channel priority

ChannelPriority,

--Measurement capability

MeasurementCapability,

-- Operation code

OperationCode,

--Failed parameters

FailedParameters,

--Channel classification information list

ChClassInfoList,

--Event parameters

EventParams,

--Measurement description

MeasurementDescription,

--Measurement result

MeasurementResult,

--Mobility Information

MobilityInformation,

--Entity profile

EntityProfile,

--Required information description

ReqInfoDescr,

--Required information value

ReqInfoValue,

--GCO Descriptor (Used in Profile 3)

GCODescriptor,

-- List Of Desired Performance

ListOfDesiredPerformances,

--Range

Range,

--Channel classification information

ChClassInfo,

--Spectrum Request Modification

SpecRequestModification,

--List of coexistence reports

ListOfCoexistenceReports

FROM IEEE802191DataType;

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

**--WSO/GCO subscription**

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

--Request for subscription information

CxMediaSubscriptionRequest ::= SEQUENCE {}

--Subscription information

CxMediaSubscriptionResponse ::= SEQUENCE {

--WSO subscription ID

clientID IA5String OPTIONAL,

--WSO subscription password

clientPassword IA5String OPTIONAL,

--List of serving CMs

listOfCMs SEQUENCE OF SEQUENCE {

--CM ID

cmID CxID OPTIONAL,

--CM IP address

cmIPAddress OCTET STRING OPTIONAL,

--CM port number

cmPortNumber INTEGER OPTIONAL,

--CM subscription ID

serverID IA5String OPTIONAL,

--CM subscription password

serverPassword IA5String OPTIONAL

} OPTIONAL,

--Coexistence service to which WSO is subscribed

coexistenceService CoexistenceService OPTIONAL,

--Coexistence service to which WSO is subscribed

subscribedService SubscribedService OPTIONAL,

--Status

status CxMediaStatus OPTIONAL

}

--Request to change subscription

CxMediaSubscriptionIndication ::= SEQUENCE {

--Coexistence service to which WSO/GCO is subscribed

coexistenceService CoexistenceService OPTIONAL,

--Coexistence service to which WSO/GCO is subscribed

subscribedService SubscribedService OPTIONAL

}

--Subscription status

CxMediaSubscriptionConfirm ::= SEQUENCE {

--Subscription status

--noError means subscription is confirmed

--rejected means subscription is not confirmed

status Status OPTIONAL,

--Status

cxMediaStatus CxMediaStatus OPTIONAL

}

--Request to change subscription

CxMediaChangeSubscriptionRequest ::= SEQUENCE {

--Coexistence service to which WSO is subscribed

subscribedService SubscribedService OPTIONAL,

coexistenceService CoexistenceService OPTIONAL

}

--Response for subscription change

CxMediaChangeSubscriptionResponse ::= SEQUENCE {

--Status

status CxMediaStatus OPTIONAL

}

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

**--WSO/GCO registration**

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

--Request for registration information

CxMediaRegistrationRequest ::= SEQUENCE {}

--Registration information

CxMediaRegistrationResponse ::= SEQUENCE OF SEQUENCE {

--WSO ID

wsoID OCTET STRING OPTIONAL,

--Network ID

networkID OCTET STRING OPTIONAL,

--Network technology

networkTechnology NetworkTechnology OPTIONAL,

--Network type

networkType NetworkType OPTIONAL,

--Geolocation

geolocation Geolocation OPTIONAL,

--Discovery information

discoveryInformation DiscoveryInformation OPTIONAL,

--Coverage area

coverageArea CoverageArea OPTIONAL,

--Installation parameters

installationParameters InstallationParameters OPTIONAL,

--List of available frequencies

listOfAvailableFrequencies ListOfAvailableFrequencies 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,

--Transmission schedule is supported or not

txScheduleSupported BOOLEAN OPTIONAL,

--Measurement capability

measurementCapability MeasurementCapability OPTIONAL,

--Required resource

requiredResource RequiredResource OPTIONAL,

--Mobility Information

mobilityInformation MobilityInformation OPTIONAL,

--GCO ID

gcoID OCTET STRING OPTIONAL,

--GCO descriptor

gcoDescriptor GCODescriptor OPTIONAL,

--List of desired performance

listOfDesiredPerformances ListOfDesiredPerformances OPTIONAL,

--Spectrum transition capability

spectrumTransitionCapability BOOLEAN OPTIONAL,

--Operation region

operationRegion Range OPTIONAL

}

--Updated registration information

CxMediaRegistrationIndication ::= SEQUENCE OF SEQUENCE {

--WSO ID

wsoID OCTET STRING OPTIONAL,

--Network ID

networkID OCTET STRING OPTIONAL,

--Network technology

networkTechnology NetworkTechnology OPTIONAL,

--Network type

networkType NetworkType OPTIONAL,

--Indication of WSO stop operation

wsoStopOperation BOOLEAN OPTIONAL,

--List of available frequencies

listOfAvailableFrequencies ListOfAvailableFrequencies OPTIONAL,

--List of operating frequencies

listOfOperatingFrequencies ListOfOperatingFrequencies OPTIONAL,

--Required resource

requiredResource RequiredResource OPTIONAL,

--Discovery information

discoveryInformation DiscoveryInformation OPTIONAL,

--Transmission schedule is supported or not

txScheduleSupported BOOLEAN 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,

--Measurement capability

measurementCapability MeasurementCapability OPTIONAL,

--Mobility information

mobilityInformation MobilityInformation OPTIONAL,

--GCO ID

gcoID OCTET STRING OPTIONAL,

--List of desired performance

listOfDesiredPerformances ListOfDesiredPerformances OPTIONAL,

--Spectrum transition capability

spectrumTransitionCapability BOOLEAN OPTIONAL,

--Operation region

operationRegion Range OPTIONAL

}

--Registration confirmation

CxMediaRegistrationConfirm ::= SEQUENCE {

--Registration status

status Status OPTIONAL,

--CxMedis status

cxMediastatus CxMediaStatus OPTIONAL

}

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

**--WSO/GCO reconfiguration**

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

--Reconfiguration request

CxMediaReconfigurationRequest ::= 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 [dBm]

txPowerLimit REAL OPTIONAL,

--Indication whether the channel is shared

channelIsShared BOOLEAN OPTIONAL,

--Transmission schedule

txSchedule TxSchedule OPTIONAL,

-- Channel classification information

chClassInfo ChClassInfo OPTIONAL,

--Additionally operable network technology

addNetworkTechnology NetworkTechnology OPTIONAL,

--GCO ID

gcoID OCTET STRING OPTIONAL,

--List of operating frequencies

listOfOperatingFrequencies ListOfOperatingFrequencies OPTIONAL,

--Network technology to be configured

newNetworkTechnology NetworkTechnology OPTIONAL,

--Spectrum request modification

specRequestModification SpecRequestModification OPTIONAL

}

--Reconfiguration response

CxMediaReconfigurationResponse ::= SEQUENCE OF SEQUENCE {

--WSO ID

wsoID OCTET STRING OPTIONAL,

--Reconfiguration status

status Status OPTIONAL,

--CxMedia status

cxMediaStatus CxMediaStatus OPTIONAL,

--Failed parameters

failedParameters FailedParameters OPTIONAL

}

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

**--CM stop operation**

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

--Stop operation indication

CxMediaStopOperationIndication ::= SEQUENCE {}

--Stop operation confirm

CxMediaStopOperationConfirm ::= SEQUENCE {

--Stop operation status

status Status OPTIONAL

}

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

**--Coexistence report**

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

-- Coexistence report indication

CxMediaCoexistenceReportAnnouncement ::= SEQUENCE OF SEQUENCE {

--WSO ID

wsoID OCTET STRING OPTIONAL,

--List of subject WSO available frequencies

listOfSubjectWSOAvailableFrequencies ListOfSubjectWSOAvailableFrequencies OPTIONAL

}

-- Coexistence report confirm

CxMediaCoexistenceReportConfirm ::= SEQUENCE {

--Coexistence report status

status Status OPTIONAL

}

--Request for coexistence report

CxMediaCoexistenceReportRequest ::= SEQUENCE {}

--Response for coexistence report

CxMediaCoexistenceReportResponse ::= SEQUENCE {

--Coexistence report information

coexistenceReport CoexistenceReport OPTIONAL,

--List of coexistence reports

listOfCoexistenceReports ListOfCoexistenceReports OPTIONAL

}

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

**--Channel classification requested by CE**

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

--Channel classification request

CxMediaChannelClassificationRequest ::= SEQUENCE {

-- List of network ID

listOfNetworkID SEQUENCE OF OCTET STRING OPTIONAL

}

-- Channel classification response

CxMediaChannelClassificationResponse ::= SEQUENCE {

--List of channel classification information

chClassInfoList ChClassInfoList OPTIONAL

}

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

**--Channel classification update**

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

--Channel classification update

CxMediaChannelClassificationIndication ::= SEQUENCE {

--List of channel classification information

chClassInfoList ChClassInfoList OPTIONAL

}

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

**--Available channel list from WSO**

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

-- Available channel List request

CxMediaAvailableChannelListRequest ::= SEQUENCE {}

-- Available channel list response

CxMediaAvailableChannelListResponse ::= SEQUENCE {

--Available channel list information

listOfAvailableChNumbers ListOfAvailableChNumbers OPTIONAL

}

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

**--Event indication**

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

-- Event indication

CxMediaEventIndication ::= SEQUENCE {

-- Event indication information

eventParams EventParams OPTIONAL

}

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

**--Information acquiring**

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

--Information acquiring request

CxMediaInfoAcquiringRequest ::= SEQUENCE {

--Information acquiring request list

listOfReqInfoDescr SEQUENCE OF ReqInfoDescr OPTIONAL

}

--Information acquiring response

CxMediaInfoAcquiringResponse ::= SEQUENCE {

--Information acquiring response

reqInfoValue ReqInfoValue OPTIONAL

}

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

**--Measurement Request**

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

-- Measurement request

CxMediaGetMeasurementRequest ::= SEQUENCE OF SEQUENCE {

-- Measurement request information

measurementDescription MeasurementDescription OPTIONAL

}

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

**-- Measurement results**

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

-- Measurement response

CxMediaGetMeasurementResponse ::= SEQUENCE OF SEQUENCE{

-- Measurement results

measurementResult MeasurementResult OPTIONAL

}

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

**-- WSO/GCO Deregistration**

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

--Deregistration request

CxMediaPerformDeregistrationRequest ::= SEQUENCE {

--List of operating channel number

wsoDeregistration BOOLEAN OPTIONAL

}

-- Deregistration response

CxMediaPerformReconfigurationResponse ::= SEQUENCE {

--CxMedia status

cxMediaStatus CxMediaStatus OPTIONAL

}

END

**------------------------------------------- End of Changes --------------------------------------------**

**------------------------------------------- Proposed Changes ---------------------------------------**

***Delete all the contents of B.2 in 802.19.1a (all the contents are included in above text)***

**------------------------------------------- End of Changes --------------------------------------------**