**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 |
| Source | Sho Furuichi (Sony Corporation) | E-mail: Sho.Furuichi@sony.com |
| 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 --------------------------------------------**