IEEE P802.19
Wireless Coexistence

|  |
| --- |
| Annex B Primitives |
| Date: 2013-07-16 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Stanislav Filin | NICT |  |  | sfilin@nict.go.jp |
| Hiroshi Harada | NICT |  |  |  |
| Hyunduk Kang | ETRI |  |  |  |

Abstract

This document is a submission to IEEE 802.19 TG1 proposing update to Annex B Primitives.

**Notice:** This document has been prepared to assist IEEE 802.19. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

# Proposed update

*It is proposed to substitute Annex B Primitives with the text below.*

## 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,

 --Destination ID

 destinationID CxID,

 --Destination IP address

 destinationIPAddress OCTET STRING,

 --Destination port number

 destinationPortNumber INTEGER}

--Transport service configuration response

TrConfigurationResponse ::= SEQUENCE {

 --Destination ID

 destinationID CxID,

 --Configuration status

 status Status}

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

**--Connection establishment**

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

--Request for connection

TrConnectionRequest ::= SEQUENCE {

 --Source ID

 sourceID CxID,

 --Destination ID

 destinationID CxID}

--Indication of the received connection request

TrConnectionIndication ::= SEQUENCE {

 --Source ID

 sourceID CxID}

--Response to the received connection request

TrConnectionResponse ::= SEQUENCE {

 --Destination ID

 destinationID CxID,

 --Connection status

 status Status}

--Confirmation to the connection request

TrConnectionConfirm ::= SEQUENCE {

 --Source ID

 sourceID CxID,

 --Connection status

 status Status}

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

**--Connection termination**

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

--Connection termination request

TrDisconnectionRequest ::= SEQUENCE {

 --Destination ID

 destinationID CxID}

--Connection termination indication

TrDisconnectionIndication ::= SEQUENCE {

 --Source ID

 sourceID CxID}

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

**--Sending a coexistence protocol message**

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

--Request to send coexistence protocol message

TrSendRequest ::= SEQUENCE {

 --Destination ID

 destinationID CxID,

 --Encoded coexistence protocol message

 cxMessage OCTET STRING}

--Confirmation of sending coexistence protocol message

TrSendConfirm ::= SEQUENCE {

 --Destination ID

 destinationID CxID,

 --Status of sending coexistence protocol message

 status Status}

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

**--Receiving a coexistence protocol message**

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

--Indication of received coexistence protocol message

TrReceiveIndication ::= SEQUENCE {

 --Source ID

 sourceID CxID,

 --Encoded coexistence protocol message

 cxMessage OCTET STRING}

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

FROM IEEE802191DataType;

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

**--WSO 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,

 --CM IP address

 cmIPAddress OCTET STRING,

 --CM port number

 cmPortNumber INTEGER,

 --CM subscription ID

 serverID IA5String,

 --CM subscription password

 serverPassword IA5String} 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 is subscribed

 coexistenceService CoexistenceService OPTIONAL,

 --Coexistence service to which WSO 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}

--Response for subscription change

CxMediaChangeSubscriptionResponse :: = SEQUENCE {

 --Status

 Status CxMediaStatus}

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

**--WSO registration**

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

--Request for registration information

CxMediaRegistrationRequest ::= SEQUENCE {}

--Registration information

CxMediaRegistrationResponse ::= SEQUENCE OF SEQUENCE {

 --WSO ID

 wsoID OCTET STRING OPTIONAL,

 --Network ID

 networkID OCTET STRING,

 --Network technology

 networkTechnology NetworkTechnology,

 --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,

 --Mobility Information

 mobilityInformation MobilityInformation 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

}

--Registration confirmation

CxMediaRegistrationConfirm ::= SEQUENCE {

 --Registration status

 status Status OPTIONAL,

 --CxMedis status

 cxMediastatus CxMediaStatus OPTIONAL}

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

**--WSO 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

 txPowerLimit REAL OPTIONAL,

 --Indication whether the channel is shared

 channelIsShared BOOLEAN,

 --Transmission schedule

 txSchedule TxSchedule OPTIONAL,

 -- Channel classification information

 chClassInfo ChClassInfo 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}

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

**--Coexistence report**

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

-- Coexistence report indication

CxMediaCoexistenceReportAnnouncement ::= SEQUENCE OF SEQUENCE {

 --WSO ID

 wsoID OCTET STRING,

 --List of subject WSO available frequencies

 listOfSubjectWSOAvailableFrequencies ListOfSubjectWSOAvailableFrequencies}

-- Coexistence report confirm

CxMediaCoexistenceReportConfirm ::= SEQUENCE {

 --Coexistence report status

 status Status}

--Request for coexistence report

CxMediaCoexistenceReportRequest ::= SEQUENCE {}

--Response for coexistence report

CxMediaCoexistenceReportResponse ::= SEQUENCE {

--Coexistence report information

 coexistenceReport CoexistenceReport,

 --Channel priority information

 channelPriority ChannelPriority}

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

**--Channel classification requested by CE**

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

--Channel classification request

CxMediaChannelClassificationRequest ::= SEQUENCE {

 -- List of network ID

 listOfNetworkID SEQUENCE OF OCTET STRING}

-- Channel classification response

CxMediaChannelClassificationResponse ::= SEQUENCE {

 --List of channel classification information

 chClassInfoList ChClassInfoList}

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

**--Channel classification update**

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

--Channel classification update

CxMediaChannelClassificationIndication ::= SEQUENCE {

 --List of channel classification information

 chClassInfoList ChClassInfoList}

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

**--Available channel list from WSO**

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

-- Available channel List request

CxMediaAvailableChannelListRequest ::= SEQUENCE {}

-- Available channel list response

CxMediaAvailableChannelListResponse ::= SEQUENCE {

 --Available channel list information

 listOfAvailableChNumbers ListOfAvailableChNumbers}

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

**--Event indication**

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

-- Event indication

CxMediaEventIndication ::= SEQUENCE {

 -- Event indication information

 eventParams EventParams}

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

**--Measurement Request**

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

-- Measurement request

CxMediaGetMeasurementRequest ::= SEQUENCE {

 -- Measurement request information

 measurementDescription MeasurementDescription}

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

**-- Measurement results**

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

-- Measurement response

CxMediaGetMeasurementResponse ::= SEQUENCE OF SEQUENCE{

 -- Measurement results

 measurementResult MeasurementResult}

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

**-- WSO Deregistration**

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

--Deregistration request

CxMediaPerformDeregistrationRequest ::= SEQUENCE {

 --List of operating channel number

 wsoDeregistration BOOLEAN}

-- Deregistration response

CxMediaPerformReconfigurationResponse ::= SEQUENCE {

 --CxMedia status

 cxMediaStatus CxMediaStatus}

END