IEEE P802.19
Wireless Coexistence

Proposed update to entity operation

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Abstract

This document is a submission to IEEE 802.19 TG1 proposing update to entity operation.

Proposed update

It is proposed to update sections 7, 8, 9 as shown below.

1. Entity operation

This clause defines operation of the IEEE 802.19.1 entities: CDIS, CM, and CE. Different profiles are defined and entity operation is described for each profile.

To ensure interoperability between different profiles, the following principles have been used.

Any CDIS shall be able to provide coexistence discovery service to any type of CM.

Any CM shall be able to exchange information with any other type of CM. A CM shall support at least one profile. A profile determines which procedures, messages, and parameters are mandatory and which are optional. Any CM shall support both management service and information service.

Any CE shall support at least one profile. A CE shall support at least management service or information service or may support both.

1.1 Common operation

This subclause defines operation common to all entities.

1.1.1 Transport SAP operation

TBD

1.1.2 Processing CxMessage header

CxMessage header is choice of the following options (reference to message definition):

- none
- requestID.

Before sending a message, a sending entity shall set the values of the CxMessage header as described below.

If the sending entity is sending an announcement message, the sending entity shall set header=none.

If the sending entity is sending a request message, the sending entity shall set header=requestID, where the value of the requestID is set arbitrary (implementation dependent).

If the sending entity is sending a response message to a previously received request message, the sending entity shall set header=requestID and shall set the value of the requestID to the same value as in the received request message.

1.1.3 Processing status parameter

TBD

1.2 CDIS operation

TBD

1.3 CM operation

TBD

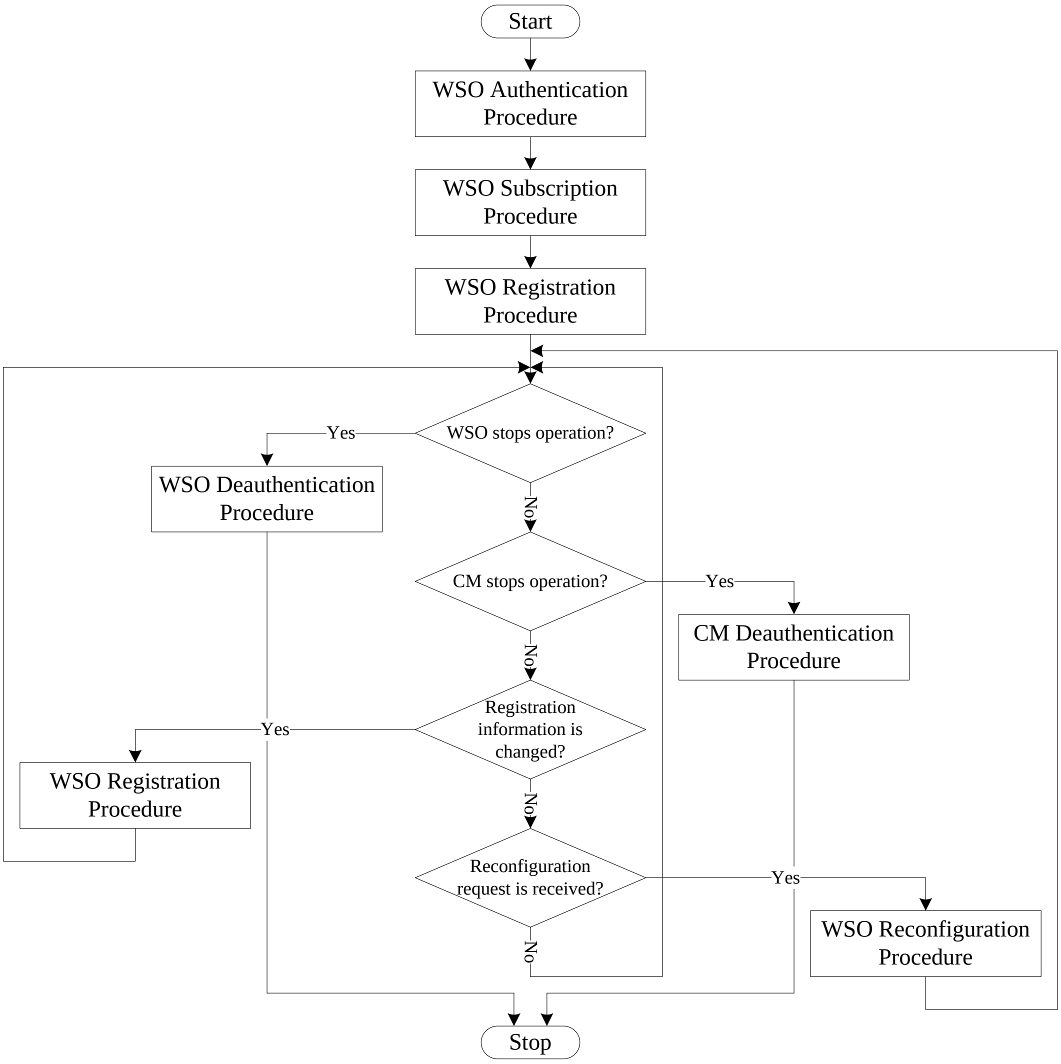
1.4 CE operation

The following CE operation profiles are defiend:

- Profile #N

1.4.1 CE operation according to profile #N

Figure below shows CE operation according to profile #N.


Start
WSO Authentication Procedure
WSO Subscription Procedure
WSO Registration Procedure
WSO stops operation?
Yes
WSO Deauthentication Procedure
No
CM stops operation?
Yes
CM Deauthentication Procedure
No
Registration information is changed?
Yes
WSO Registration Procedure
No
Reconfiguration request is received?
Yes
WSO Reconfiguration Procedure
No
Stop

During the **WSO authentication procedure**, described in REF, the CE shall do the following.

First the CE shall generate and send the CxMediaAuthenticationRequest primitive to the WSO it serves and shall wait for the CxMediaAuthenticationResponse primitive from the WSO.

Table below shows expected values of the parameters in the CxMediaAuthenticationResponse primitive.

Parameter	*Data type*	*Value*
clientID	IA5String	WSO ID from the CE configuration file
clientPassword	IA5String	WSO password from the CE configuration file
cmID	CxID	*This parameter is not used in this profile*
serverID	IA5String	CM ID from the CE configuration file
serverPassword	IA5String	CM password from the CE configuration file
serverIPAddress	IA5String	*This parameter is not used in this profile*
serverPortNum	INTEGER	*This parameter is not used in this profile*
status	Status	*This parameter is not used in this profile*

After the CE has received the CxMediaAuthenticationResponse primitive from the WSO, the CE shall generate and send the AuthenticationRequest message to the CM that serves this CE and wait for the AuthenticationResponse message from the CM.

When generating the AuthenticationRequest message, the CE shall set the parameters of the CxMessage as shown in the table below.

Parameter	*Data type*	*Value*
header	CxHeader	requestID
payload	CxPayload	authenticationRequest

The CE shall set the parameters of the authenticationRequest payload as shown in the table below.

Parameter	*Data type*	*Value*
clientID	IA5String	The value of the clientID parameter from the received CxMediaAuthenticationResponse primitive.
clientPassword	IA5String	The value of the clientPassword parameter from the received CxMediaAuthenticationResponse primitive.

Table below shows expected values of the parameters in the AuthenticationResponse message.

Parameter	*Data type*	*Value*
header	CxHeader	requestID
payload	CxPayload	authenticationResponse

Table below shows expected values of the parameters in the authenticationResponse payload.

Parameter	*Data type*	*Value*
serverID	IA5String	The value of the serverID parameter from the received CxMediaAuthenticationResponse primitive.
serverPassword	IA5String	The value of the serverPassword parameter from the received CxMediaAuthenticationResponse primitive.
status	Status	noError

After the CE has received the AuthenticationResponse message from the CM, the CE shall generate and send the CxMediaAuthenticationConfirm primitive to the WSO.

The CE shall set the parameters of the CxMediaAuthenticationConfirm primitive as shown in the table below.

Parameter	*Data type*	*Value*
status	Status	noError, if authentication is successful

During the **WSO subscription procedure**, described in REF, the CE shall do the following.

First the CE shall generate and send the CxMediaSubscriptionRequest primitive to the WSO it serves and shall wait for the CxMediaSubscriptionResponse primitive from the WSO.

Table below shows expected values of the parameters in the CxMediaSubscriptionResponse primitive.

Parameter	*Data type*	*Value*
subscribedService	SubscribedService	information or management
licenseType	LicenseType	*This parameter is not used in this profile*
status	Status	*This parameter is not used in this profile*

After the CE has received the CxMediaSubscriptionResponse primitive from the WSO, the CE shall generate and send the SubscriptionRequest message to the CM that serves this CE and wait for the SubscriptionResponse message from the CM.

When generating the SubscriptionRequest message, the CE shall set the parameters of the CxMessage as shown in the table below.

Parameter	*Data type*	*Value*
header	CxHeader	requestID
payload	CxPayload	subscriptionRequest

The CE shall set the parameters of the subscriptionRequest payload as shown in the table below.

Parameter	*Data type*	*Value*
subscribedService	SubscribedService	The value of the subscribedService parameter from the received CxMediaSubscriptionResponse primitive.

Table below shows expected values of the parameters in the SubscriptionResponse message.

Parameter	*Data type*	*Value*
header	CxHeader	requestID
payload	CxPayload	subscriptionResponse

Table below shows expected values of the parameters in the subscriptionResponse payload.

Parameter	*Data type*	*Value*
status	Status	noError

After the CE has received the SubscriptionResponse message from the CM, the CE shall generate and send the CxMediaSubscriptionConfirm primitive to the WSO.

The CE shall set the parameters of the CxMediaSubscriptionConfirm primitive as shown in the table below.

Parameter	*Data type*	*Value*
status	Status	noError, if subscription is confirmed

During the **WSO registration procedure**, described in REF, the CE shall do the following.