IEEE P802.19
Wireless Coexistence

|  |
| --- |
| Comment Resolution CID 42, 43 |
| Date: 2011-11-09 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Yunjung Yi | LG Electronics |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This document provides proposed resolutions for comments 43, 43 received in the 2nd TG review of Draft P802.19.1/DF0.1.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Subclause** | **Page** | **Comment** | **Suggested Remedy** | **Response** |
| 42 |  | 5.2.1.2 | 41 | Not clear how deauthentication and de-registration works (or de-registrationw orks) | Add the following after the first sentence:Deauthentication procedure includes both deauthentication and de-registration. Once CM receives Deauthentication\_Request from a CE, it initiates de-registration process to remove the registration information from CDIS. Change “CM\_Registration\_Request” to “CM\_DeRegistration\_Request”.Change “CM\_Registration\_Response” to CM\_DeRegistration\_Response”.  |  |
| 43 |  | 5.3 | 56 | Messages are missing a few important fields such as packet type, etc | Revise message format (5.3) to be completed |  |

**Discussion**

**Propose**

Following changes are proposed to make message formats more clear and readable.

***Editor -- Add the following after the first sentence of subclause 5.2.1.1:***

NOTE- It is recommended that each TVBD network or device has a dedicated CE serving it. Authentication uses ID/password pairs to log on to CM (by a CE) or CDIS (by a CM). ID/password distribution is out of the scope of this specification.

***Editor -- Add the following after the first sentence of subclause 5.2.1.2:***

Deauthentication procedure includes both deauthentication and de-registration. Once CM receives Deauthentication\_Request from a CE, it initiates de-registration process to remove the registration information from CDIS.

**Propose**

Introduce CM\_DeRegistration\_Request message to deauthenticate TVBD network or device or CM as it is very confusing CM\_Registration\_Request is used to deauthenticate/disassociate.

***Editor – Change “CM\_Registration\_Request” to “CM\_DeRegistration\_Request” in Figure 10***

***Editor – Change “CM\_Registration\_Response” to “CM\_DeRegistration\_Response” in Figure 10***

 **Propose**

Improve each message format to be more readable and communication-feasible.

***Editor – Replace Table 32 with the following:***

|  |  |  |
| --- | --- | --- |
| Information Element | Data Type | Description/Value |
| MsgType | Char | Message type |
| sourceType | CX\_ID | Source type |
| sourceIdentifier | IA5String | Source identifier |
| destType | CX\_ID | Destination type |
| destinationIdentifier | IA5String | Destination identifier |
| ACKPolicy | Boolean | Request to send an acknowledgement of reception by setting this field to 1 |
| Length | Integer | The total length of payload |

***Editor – Add the following to the end of clause 5.3***

MsgType is 1 Octet in length. MsgType field represents the message type of this message. The value is defined in Table xxx. sourceType and destType represent type of sender and receiver. sourceIdentifier/destinationIdentifier represent identifier of sender and receiver. Length field represent the total length of payload.

The MsgType is defined in Table xxx.

|  |  |
| --- | --- |
| Value | Description |
| 0 | ACK |
| 1 | Authentication\_Request |
| 2 | Authentication\_Response |
| 3 | Deauthentication\_Request |
| 4 | StopOperation\_Announcement |
| 5-255 | Reserved (to be filled later) |
|  |  |

Table xxx. MsgType Values

Acknowledgement (ACK) packet has zero message payload.

***Editor – Remove serverID & serverPW from Table 34.***

**Discussion*:*** When the authentication is done, it may not be needed server ID/passwd as it’s just a reponse.

***Editor -- Replace Table 35 with the following table.***

|  |  |  |
| --- | --- | --- |
| Information element | Data Type | Description |
| CID | Integer | CoexistenceDeviceID (A unique ID allocated by the CDIS which the TVBD network or device has registered) |

 **Discussion*:*** Once TVBD network or device has registered to a CDIS through a CM, CDIS will assign a unique ID for the entity which can be used for successive communications between TVBD network or device and CM/CDIS.

***Editor -- Replace Table 36 with the following table.***

|  |  |  |
| --- | --- | --- |
| Information element | Data Type | Description |
| CID | Integer | CoexistenceDeviceID  |
| Status | Boolean | Status: successful or not |

**Discussion*:*** it is not needed serverID and serverPW for a reponse. CID can be used as an ID.

***Editor -- Change the table 41 as the following****:*

|  |  |  |
| --- | --- | --- |
| Information element | Data type | Descripton |
| discoveryInformation | DiscoveryInformation | List of information required to calculate neighborhood by CDIS. For example, location, maxTxPower, rxSensitivity, antennaGain, minimum required SNR, Tolerable Interference Level, etc. CDIS using this information may compute the inter-CM neighbors and intra-CM neighbors. Information for discovery |
| ~~ACLR~~ | ~~Real~~ | ~~Adjacent channel leakage~~~~ratio of the TVBD device~~ |
| ~~ACS~~ | ~~Real~~ | ~~Adjacent channel selectivity of the~~~~Receiver~~ |
| listOfSupportedChNumber | ListOfSupportedCh-Number optional | List of supported channel number. Supported channel information includes operating class, channel bandwidth and channel number. |
| listOfOperatingChNumber | ListOfOperatingCh-Number optional | List of operating channel number. Operating channel information includes operating class, channel bandwidth and channel number.  |
| listOfSupportedFrequencies | ListOfSupportedFrequenciesoptional | List of supported frequencies. Supported frequency includes start frequency, stop frequency, occupany and totalOccupancy.  |
| listOfOperatingFrequencies | ListOfOperatingFrequenciesoptional | List of operatingfrequencies. Operating frequency includes start frequency and stop frequency.  |
|  |  |  |

**Discussion*:*** Add a bit more description in description field. I don’t think ACLR and ACS field are used throughout the spec. So, delete them.

***Editor – change subclause 5.3.3.2 as the following****:*

This message is sent from a CM to a CE to confirm the registration. ~~Also, this message is sent from CDIS to~~

~~CM to confirm the registration.~~

The sourceIdentifier shall be set to CM\_ID ~~or CDIS\_ID~~. The destinationIdentifier shall be set to CE\_ID ~~or~~

~~CM\_ID~~. The message has no payload.

***Editor – add a new subclause 5.2.3.5 & 5.2.3.6 as the following****:*

5.2.3.5 CM\_DeRegistration\_Request

This message is sent from a CM to a CDIS to remove registration information of a TVBD network or device served by this CM to the CDIS.

The sourceIdentifier shall be set to CM\_ID. The destinationIdentifier shall be set to CDIS\_ID. The message payload is defined in Table xxx.

|  |  |  |
| --- | --- | --- |
| Information element | Data type | Description |
| CID | Integer | Unique ID per registered TVBD network or device allocated by CDIS |
| Reason | Char | Reasons of de-registration. 0: Deauthentication request by CE 1-255 Reserved |

Table xxx. Message payload format of CM\_DeRegistration\_Request

5.2.3.6 CM\_DeRegistration\_Response

This message is sent from a CDIS to CM to confirm the de-registration. The sourceIdentifier shall be set to CDIS\_ID, and the destinationIdentifier shall be set to CM\_ID.

The payload of this message is defined as in Table xxx.

|  |  |  |
| --- | --- | --- |
| Information element | Data type | Description |
| CID | Integer | Unique ID per registered TVBD network or device allocated by CDIS |
| Status | Boolean | Status of deregistration request0: successful1: failed |

Table xxx. Message payload format of CM\_DeRegistration\_Response

5.3.3.4 CM\_Registration\_Response

This message is sent from a CDIS to a CM to confirm the registration.

The SourceIdentifier shall be set to CDIS\_ID. The destinationIdentifier shall be set to CM\_ID. The message has the following payload defined in Table xxx.

|  |  |  |
| --- | --- | --- |
| Information element | Data type | Description |
| NumberOfRegisteredTVBD | Integer | Number of responding TVBD networks or devices in this message |
| CIDa | Integer | CDIS allocated unique identifier (CoexistenceDeviceID) for the registered TVBD networks or devices |
| Statusa | Boolean | Status: registration is successful or failed |

aThis information elements are repeated for each TVBD network or device.