IEEE P802.11
Wireless LANs

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| Resolution to 11ad CIDs |
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Abstract

Proposes resolution to CIDs 3232, 3499, 3692.

The proposed changes are in reference to Draft P802.11REVmc\_D3.2.

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| --- | --- | --- | --- | --- |
| 3232 | 1009.01 | 8.4.2.136 | It is not stated anywhere which frame(s) are used to carry the Awake Window element. | Add AwakeWindow to DMG Beacon and Announce frame body (Table 8-49 and Table 8-401), or state in 8.4.2.136 that the element can be carried in DMG Beacon and Announce frames, or other solution. |

**Proposed resolution:** Revised

**Discussion**: Make changes to indicated frames. In addition, the Request element is included in Information Request and Information Response frames, but that is not indicated in 8.4.2.10 – hence, need to fix that too.

**Proposed changes:**

**8.3.4.1 DMG Beacon**

*Insert the following row in (****Table 8-49—DMG Beacon frame body****), renumbering as appropriate*

|  |  |  |
| --- | --- | --- |
| 15 | Awake Window | The Awake Window element is optionally present. |

**8.4.2.10 Request element**

*Change the first paragraph as follows*

This element is placed in a Probe Request frame or Information Request frame to request that the responding STA include the requested information in the Probe Response frame or Information Response frame, respectively. The format of the element is as shown in Figure 8-132 (Request element).

*Change the third paragraph as follows*

The Requested Element IDs are the list of elements that are requested to be included in the Probe Response frame or Information Response frame. The Requested Element IDs are listed in order of increasing element ID.

**8.6.22.2 Announce frame format**

*Change (***Table 8-401—Announce frame Action field format***) as follows*

|  |  |
| --- | --- |
| Order | Information |
| 1 | Category |
| 2 | Unprotected DMG Action |
| 3 | Timestamp |
| 4 | Beacon Interval |
| 5 | SSID (optional) |
| 6 | Extended Schedule (optional) |
| 7 | DMG Capabilities (optional) |
| 8 | RSN (optional) |
| 9 | Multiple BSSID (optional) |
| 10 | DMG Operation (optional) |
| 11 | Next DMG ATI (optional) |
| 12 | Multi-band (optional) |
| 13 | Awake Window (optional) |
| 14 | DMG BSS Parameter Change (optional) |
| 15 | Vendor Specific (optional) |
| 16 | BeamLink Maintenance (optional) |
| 17 | Multiple MAC Sublayers (optional) |
| 18 | ECAPC Policy (optional) |
| 19 | Cluster Report (optional) |
| 20 | Next PCP List (optional) |
| 21 | PCP Handover (optional) |
| 22 | STA Availability element (optional) |
|  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3692 | 1525.13 | 10.1.4.3.3 | "perform the basic access procedure defined ... prior to the transmission": as if we didn't know the definition was prior to the transmission. It also is unclear whether this procedure is to be followed just once or each time a Probe Request frame is to be transmitted, and exactly why there may be more than one transmission of a Probe Request frame. | Since "prior to the transmission" is not part of the procedure defined in 9.3.4.2, this really is a run-on sentence. Replace "9.3.4.2 (Basic access) prior to the transmission of each of one or more Probe Request frames, each with an SSID indicated in the SSID List and the BSSID from the MLME-SCAN.request primitive." with "9.3.4.2 (Basic access). Perform this procedure prior to each transmission of a Probe Request frame. Each of these transmitted Probe Request frames shall contain an SSID that was included in the SSID List parameter and the BSSID from the BSSID parameter of the received MLME-SCAN.request primitive. One Probe Request frame shall be transmitted for each SSID included in the received SSID List parameter.". |

**Proposed resolution:** Revised

**Discussion**: Language can be improved in certain places. Also, need to align the language for both DMG and non-DMG. Finally, note that the last sentence in the proposed change “One Probe Request frame shall be transmitted for each SSID included in the received SSID List parameter” is not a mandatory requirement and hence should not be added.

**10.1.4.3.2 Active scanning procedure for a non-DMG STA**

*Change the noted paragraph under item (c) as follows*

Send a probe request to the broadcast destination address. The probe request is sent with the SSID and BSSID from the received(#3680) MLME-SCAN.request primitive. When the SSID List is present in the MLME-SCAN.request primitive, perform the basic access procedure defined in 9.3.4.2 (Basic access) prior to each transmission of a Probe Request frame. Each of the transmitted Probe Request frames contains an SSID indicated in the SSID List and the BSSID from the MLME-SCAN.request primitive.

**10.1.4.3.3 Active scanning procedure for a DMG STA**

*Change the noted paragraph under item (f) as follows*

In all these cases, the probe request is sent with the SSID and BSSID from the received(#3680) MLME-SCAN.request primitive. The probe request includes the DMG Capabilities element. When the SSID List is present in the MLME-SCAN.request primitive, perform the basic access procedure defined in 9.3.4.2 (Basic access) prior to each transmission of a Probe Request frame. Each of the transmitted Probe Request frames contains an SSID indicated in the SSID List and the BSSID from the received(#3680) MLME-SCAN.request primitive.

*Change the noted paragraph under item (g) as follows*

If an SSW-Feedback frame is neither transmitted nor received in (#3408)step d), optionally send a probe request to the broadcast destination address. The probe request is sent with the SSID and BSSID from the received(#3680) MLME-SCAN.request primitive. The probe request includes the DMG Capabilities element. When the SSID List is present in the MLME-SCAN.request primitive, perform the basic access procedure defined in 9.3.4.2 (Basic access) prior to each transmission of a Probe Request frame. Each of the transmitted Probe Request frames contains an SSID indicated in the SSID List and the BSSID from the MLME-SCAN.request primitive.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3499 | 1211.28 | 8.6.22.2 | "Multiple elements can appear in this frame." Like what? Anything? This is underconstrained. List what can, and makes sense, to put here; or something | Clarify what elements are sensible or expected in this frame. |

**Proposed resolution:** Revised

**Discussion**: resolved as part of CID3232