IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CIDs 2004 & 2007 | | | | |
| Date: June 10, 2019 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Abhishek Patil | Qualcomm Inc. |  |  | appatil@qti.qualcomm.com |
| Jouni Marlinen |  |  |  |
| Menzo Wentink |  |  |  |
| Ali Raissinia |  |  |  |
| Alfred Asterjadhi |  |  |  |
| George Cherian |  |  |  |

Abstract

This submission proposes resolutions for CIDs 2004 and 2007 received for TGm LB236

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Resolutions updated based on feedback received when the doc was presented 5/16/19 (AM2) and offline via email
  + CID 2004: Change the subfield name to ‘Common Antenna BSSID List’
  + CID 2007: Clarify that the Measurement Report sub-element in Neighbor Report element carries the Common Antenna BSSID List sub-element
* Rev 2: Based on extensive offline discussion, it was decided to not change the name of the subelement. Instead the Co-located BSSID List subelement is used to indicate BSSIDs that share the same antenna connectors when referred in the context of FTM frames. The same subelement is used to refer to BSSIDs that are co-located with reporting BSS when referred in context of a neighbour report.
* Rev 3: Tagged an editorial change as CID 2004

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGm Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGm Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGm Editor: Editing instructions preceded by “TGm Editor” are instructions to the TGm editor to modify existing material in the TGm draft. As a result of adopting the changes, the TGm editor will execute the instructions rather than copy them to the TGm Draft.***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Pg** | **Line** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| 2004 | Abhishek Patil | 1061 | 29 | 9.4.2.21.10 | Co-Located BSSID List subelement was added by REVmc to cover the case when more than one BSSID shares the same antenna connectors [see doc 11-14/1024r1]. In such case, a non-AP STA may perform FTM with only one of the BSSIDs in the list. However, the term co-located in the subelement name is misleading and creates an ambiguity - i.e., co-located in the physical location sense or co-located from FTM result point of view. It is possible to have BSSIDs on different bands (e.g., 5GHz and 60GHz) operating from the same physical device and using different antenna connectors. In such case, the BSSIDs are at the same physical location (co-located) but FTM procedure may yield a different result since the antenna connectors are different. Change the subelement name to use a term other than co-located so that the purpose of the subelement is clear. | Change the name to 'Common Antenna-Connector BSSID List' or 'Co-Antenna BSSID List' so that it is self-explanatory and clearly captures the intended meaning from FTM point of view. | **Revised**  The subelement name is not changed. After extensive offline discussion, the spec text is update to clarify that the term co-located BSSID applies to FTM context when carried in FTM frame and refers to BSSs that are co-located within the same physical device as the reporting STA when carried in Neighbor Report. In addition, the resolution provides instructions to the editor to have a consistent name (co-located) across the spec.  **TGm editor, please apply the changes as described in doc 11-19/0405r3 tagged with CID 2004** |
| 2007 | Abhishek Patil | 1460 | 63 | 9.4.5.19 | It is not clear who carries the Co-located BSSID list sub-element - is it Neighbor Report IE (9.4.2.36)? If it so, then it should be listed in Table 9-173. Also, what does co-located mean (see my other comment for clause 9.4.2.21.10) - is it physically co-located or co-located from FTM result point of view? | As in comment. | **Revised**  Agree with the comment. It is not clear that the Measurement Report element carries the Co-Located BSSID List subelement. The text in clause 9.4.5.19 is updated to clarify that the subelement is carried in measurement Report (sub)element of the Neighbor Report element.  **TGm editor, please apply the changes as described in doc 11-19/0405r3 tagged with CID 2007** |

* LCI report (Location configuration information report)[CID 2004]

***TGm Editor: Please make the following change to the paragraph shown below in this sub-clause:***

The Co-Located BSSID List subelement is used to report the list of BSSIDs of the BSSs sharing the same antenna connector with the reporting STA if the subelement is contained within a Fine Time Measurement frame, otherwise the BSSs that are co-located within the same physical device as the reporting STA.

* Location Civic report[CID 2004]

***TGm Editor: Please make the following change to the paragraph shown below in this sub-clause:***

The Co-Located BSSID List subelement is used to report the list of BSSIDs of the BSSs sharing the same antenna connector with the reporting STA if the subelement is contained within a Fine Time Measurement frame, otherwise the BSSs that are co-located within the same physical device as the reporting STA. The Co-Located BSSID List subelement is described in 9.4.2.21.10 (LCI report (Location configuration information report)).

* Neighbor Report element[CID 2004]

***TGm Editor: Please make the following changes to the paragraphs shown below in this sub-clause:***

A Measurement Report subelement with the Measurement Type field equal to LCI (see Table 9-125 (Measurement Type field definitions for measurement reports)) is optionally present. If present, the subelement has the same format as the Measurement Report element with Measurement Type field equal to LCI.The subelement indicates the LCI of the neighbor STA and further includes the Z subelement, or the subelement indicates an unknown LCI (see 11.22.6.7 (LCI and Location Civic retrieval using FTM procedure)). The Late, Incapable and Refused bits in the Measurement Report Mode field are set to 0. The Co-Located BSSID List subelement is present in the Measurement Report subelement of the Neighbor Report element, when there is at least one other BSS that is co-located within the same physical device as the reporting BSS.

A Measurement Report subelement with the Measurement Type field equal to Location Civic (see Table 9-125 (Measurement Type field definitions for measurement reports)) is optionally present. If present, the subelement has the same format as the Measurement Report element with Measurement Type field equal to Location Civic, and the subelement indicates the civic address of the transmitting STA or an unknown civic address (see 11.22.6.7 (LCI and Location Civic retrieval using FTM procedure)). The Late, Incapable and Refused bits in the Measurement Report Mode field are set to 0. The Co-Located BSSID List subelement is present in the Measurement Report subelement of the Neighbor Report element, when there is at least one other BSS that is co-located within the same physical device as the reporting BSS. When a Measurement Report subelement with Measurement Type field equal to LCI that includes a Co-Located BSSID List subelement is present, the Co-Located BSSID List subelement is not present in the Measurement Report subelement with Measurement Type field equal to Location Civic.

* **AP Geospatial Location ANQP-element**

***TGm Editor: Please make the following change to the paragraph shown below in this sub-clause:***

The AP Geospatial Location ANQP-element provides the AP’s location in LCI format; see 9.4.2.21.10 (LCI report (Location configuration information report)). This information is taken from dot11APLCITable. [CID 2004]

***TGm Editor: Please make the following change to the paragraph shown below in this sub-clause:***

The Location Configuration Report field is of variable length and defined in 9.4.2.21.10 (LCI report (Location configuration information report)). The Z and Usage Rules/Policy subelements are optionally present in the Location Configuration Report field, when it is used in the AP Geospatial Location ANQP element. The Co-Located BSSID List subelement is present when there is at least one other BSS that is co-located within the same physical device as [CID 2004]the reporting BSS.

* **AP Civic Location ANQP-element**

***TGm Editor: Please make the following change to the paragraph shown below in this sub-clause:***

The Location Civic Report is a variable length field and the format is provided in 9.4.2.21.13 (Location Civic report). This information is taken from dot11APCivicLocationTable. The Co-Located BSSID List subelement is present when there is at least one other BSS that is co-located within the same physical device as [CID 2004]the reporting BSS and the Co-Located BSSID List subelement is not present in the Geospatial Location ANQP-element; this subelement is not present otherwise.

* **Neighbor Report ANQP-element**

***TGm Editor: Please make the following change to the paragraph shown below in this sub-clause:***

The format of the Neighbor Report element is shown in Figure 9-333 (Neighbor Report element format) defined in 9.4.2.36 (Neighbor Report element). The Co-Located BSSID List subelement is present in the Measurement Report subelement[CID 2007] when there is at least one other BSS that [CID 2004]is co-located within the same physical device as the reporting BSS.

* Fine Timing Measurement frame format[CID 2004]

***TGm Editor: Please make the following changes to the paragraphs shown below in this sub-clause:***

The LCI Report field is optionally present. If present, it contains a Measurement Report element with Measurement Type field equal to LCI (see Table 9-125 (Measurement Type field definitions for measurement reports)), which either indicates the LCI of the transmitting STA and includes the Z and Usage Rules/Policy subelement or indicates an unknown LCI (see 11.22.6.7 (LCI and Location Civic retrieval using FTM procedure)). The Late, Incapable and Refused bits in the Measurement Report Mode field are set to 0. The Co-Located BSSID List subelement is present in the Measurement Report element with Measurement Type field equal to LCI, when there is at least one other BSS that shares the same antenna connector with the reporting BSS.

The Location Civic Report field is optionally present. If present, it contains a Measurement Report element with Measurement Type field equal to Location Civic (see Table 9-125 (Measurement Type field definitions for measurement reports)), which either indicates the Civic address of the transmitting STA or an unknown Civic address (see 11.22.6.7 (LCI and Location Civic retrieval using FTM procedure)). The Late, Incapable and Refused bits in the Measurement Report Mode field are set to 0. The Co-Located BSSID List subelement is present in the Measurement Report element with Measurement Type field equal to LCI, when there is at least one other BSS that shares the same antenna connector with the reporting BSS. When the LCI Report field contains a Co-Located BSSID List subelement, the Co-Located BSSID List subelement is not present in the Location Civic Report field.

CID 2004

***TGm Editor: Please replace all usage of the term ‘collocated BSSID’ with ‘co-located BSSID’ , searching case-insensitively and preserving case***

CID 2004

***TGm Editor: Please replace all usage of the term ‘colocated BSSID’ with ‘co-located BSSID’ , searching case-insensitively and preserving case***