IEEE P802.11
Wireless LANs

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| Proposed Resolution for CID 4028 |
| Date: 2023-05-15 |
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Abstract

##### This submission presents proposed resolutions for CID 4028.

##### The proposed changes are based on REVme D3.0.

##### Revision history:

##### R0 – initial version (based on doc 23/0313r1).

| **CID** | **Page** | **Clause** | **Resn Status** | **Comment** | **Proposed Change** |
| --- | --- | --- | --- | --- | --- |
| 4028 | 2604.00 | 11.21.15 |  | A non-AP STA may experience bad interference in the current operating channel and would like to notify another STA that is operating in the same Noninfrastructure IEEE 802.11 network that a channel switch is needed and suggest preferred channels (if available). Another possibility is that a non-AP STA may not be able to operate on the current operating channel any more due to off-channel operations and would like to suggest an alternative operating channel. The standard should allow non-AP STA to indicate that a channel switch is needed and preferred channels. The channel switch information provided by the non-AP STA is a recommendation. It is up to the other peer STA to make the final decision on whether the channel switch should be made and where to switch. | Adopt the resolution in doc 11-23-0313. |

**Background**

A non-AP STA may experience bad interference in the current operating channel and would like to notify another STA that is operating in the same Noninfrastructure IEEE 802.11 network that a channel switch is needed and suggest preferred channels (if available). Another possibility is that a non-AP STA may not be able to operate on the current operating channel any more due to off-channel operations and would like to suggest an alternative operating channel.

The standard should allow non-AP STA to indicate that a channel switch is needed and preferred channels. The channel switch information provided by the non-AP STA is a recommendation. It is up to the other peer STA to make the final decision on whether the channel switch should be made and where to switch.

**Proposed Changes:**

**9.4.2.85 Channel Usage element**

***TGm editor: Please update Table 9-266 in this subclause as shown below:***

Table 9-266—Usage Mode definitions

|  |  |
| --- | --- |
| **Value** | **Usage Mode** |
| 0 | Noninfrastructure IEEE 802.11 network |
| 1 | Off-channel TDLS direct link |
| 2 | Noninfrastructure IEEE 802.11 network in which none of the APs belonging to the same ESS operate on the channels identified by the Channel Entry field |
| 3 | Peer-to-peer link indication |
| <TBD> | Noninfrastructure BSS channel switch request |
| <TBD> +1 ~~3~~-255 | Reserved |

**11.21.15 Channel usage procedures**

***TGm editor: at 2607.53, please insert the following paragraphs:***

A non-AP STA that is operating in a noninfrastructure BSS may send a Channel Usage Request frame with a Channel Usage element that carries a Usage Mode field with a value equal to <TBD> to a peer STA to indicate that it prefers to switch the operating channel of the noninfrastructure BSS to another channel. A non-AP STA may indicate the preferred operating channels by including one or more Operating class and Channel fields in the Channel Entry field of the Channel Usage element carried in the corresponding Channel Usage Request frame.

Upon receiving a Channel Usage Request frame with a Channel Usage element that carries a Usage Mode field with a value equal to <TBD>, a STA that is operating in a noninfrastructure BSS should consider switching the operating channel of the noninfrastructure BSS to a new channel that is one of the preferred channels indicated in the received Channel Entry field of the Channel Usage element, if present. The STA shall transmit a Channel Usage Response frame in response to the reception of a Channel Usage Request frame with the Usage Mode field equal to <TBD> by including a Channel Usage element with the Usage mode field set to <TBD>. If the channel switch request is accepted, the STA shall include the target operating class and channel in the Channel Entry field of the the Channel Usage element in the Channel Usage Response frame. Otherwise, no Channel Entry field is included. To switch the operating channel, the STA shall use the channel switch procedures defined in 11.8.8 and 11.9.

When the Channel Usage element is carried in a Probe Request or Probe Response frame, the Usage Mode field shall not be set to <TBD>.