IEEE P802.11
Wireless LANs

|  |
| --- |
| REVme mesh profile vs mesh STA configuration  |
| Date: 2022-09-13 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Kazuyuki Sakoda | Sony |  |  | Kazuyuki.Sakoda (at) sony (dot) com |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission contains comments on REVme D1.0 assigned to Kazuyuki Sakoda for preparation of proposed resolutions.

R0 – initial version. Try to resolve CID1289 and 1771.

**Comment:**

|  |  |  |  |
| --- | --- | --- | --- |
| CID | Clause | Comment | Proposed Change |
| 1289 | 14.2.7 | Description in 14.2.4 (Mesh STA configuration) and 14.2.7 (Candidate peer mesh STA) are largely duplicated. It might be better to clean up 14.2.7 to refer to 14.2.4. | As in comment |
| 1771 | 14.2.7 | I don't really grok why we have a mesh profile and a mesh (STA) configuration. In an MBSS, when will the STAs' mesh profiles be different but their mesh configs be the same? | Delete the 14.2.4 Mesh STA configuration subclause heading |

**Discussion:**

14.2.4 (Mesh STA configuration) and 14.2.7 (Candidate peer mesh STA) have similar condition listing, however, there is no explanation how these two things (mesh STA configuration and candidate peer mesh STA) are relating each other.

14.2.4 (Mesh STA configuration) contains 5 conditions. 14.2.7 (Candidate peer mesh STA) contains 7 conditions. Out of these 7 conditions, 5 of them are essentially the same as mesh STA configuration.

To relax CID1771 commenter’s concern, it is suggested to spell out clear definition and usage of the mesh STA configuration. Mesh profile and mesh STA config are similar but indeed have different usage.

**Proposed resolution: REVISED**

*Apply the following changes:*

* Mesh STA configuration

The mesh STA configuration is a set of parameters that determines if two mesh STAs can communicate. The mesh STA configuration consists of the mesh profile (see 14.2.3 (Mesh profile)), the Supported Rates and BSS Membership Selectors element, the Extended Supported Rates and BSS Membership Selectors element, the HT Operations element (if present), the VHT Operations element (if present), and the HE Operation element (if present).(11ax)

Mesh STA configurations are identical if the following conditions hold:

* The mesh profiles are identical.
* The BSSBasicRateSet parameter of the MLME-START.request primitive is identical to the basic rate set indicated by the Supported Rates and BSS Membership Selectors element and Extended Supported Rates and BSS Membership Selectors element, if present, received in the MLME-MESHPEERINGMANAGEMENT.indication primitive.
* For HT mesh STAs, the Basic HT-MCS Set field of the HT Operation parameter of the MLME-START.request primitive is identical to the HT Operation element received in the MLME-MESHPEERINGMANAGEMENT.indication primitive.
* For VHT mesh STAs, the Basic VHT-MCS and NSS Set field in the VHT Operation element of the MLME-START.request primitive is identical to the Basic VHT-MCS and NSS Set field in the VHT Operation element received in the MLME-MESHPEERINGMANAGEMENT.indication primitive.
* For HE mesh STAs, the Basic HE-MCS And NSS Set field in the HE Operation element of the MLME-START.request primitive is identical to the Basic HE-MCS And NSS Set field in the HE Operation element received in the MLME-MESHPEERINGMANAGEMENT.indication primitive.(11ax)
* Candidate peer mesh STA

When a mesh STA discovers a neighbor mesh STA through the scanning process and the discovered mesh STA is considered a candidate peer mesh STA, it may become a member of the mesh BSS of which the discovered mesh STA is a member and establish a mesh peering with the neighbor mesh STA.

The discovered neighbor mesh STA shall be considered a candidate peer mesh STA if and only if all of the following conditions are met:

* The discovered neighbor mesh STA has the same mesh STA configuration as the scanning mesh STA (see 14.2.4 (Mesh STA configuration)).

NOTE—If the scanning mesh STA has not become a member of any MBSS yet, it might simply activate the same mesh profile as the discovered neighbor mesh STA’s profile to fulfill this condition.

* The Accepting Additional Mesh Peerings subfield in the Mesh Capability field in the received Beacon or Probe Response frame equals 1.
1. If the scanning mesh STA has dot11MeshSecurityActivated equal to true and the dot11MeshActiveAuthenticationProtocol is ieee8021x (2), either the scanning mesh STA has an active connection to an AS or the discovered mesh STA has the Connected to AS subfield in the Mesh Formation field in the Mesh Configuration element equal to 1 in the received Beacon or Probe Response frame.

**Reference:**

[1] Draft P802.11REVme\_D1.0

[2] 11-22/0064r1 “REVme Editor2 adhoc comments on working group letter ballots”