IEEE P802.11
Wireless LANs

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| Provide Neighbor Info to non-AP-STA when Auth/Assoc Denied |
| Date: 2013-07-08 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Dan Harkins | Aruba Networks | 1322 Crossman AveSunnyvale, CA 94089 | +1 408 227 4500 | dharkins at aruba networks dot com |
| Partha Narasimhan | Aruba Networks | 1322 Crossman AveSunnyvale, CA 94089 | +1 408 227 4500 | partha at arubanetworks dot com |
| Sachin Ganu | Aruba Networks | 1322 Crossman AveSunnyvale, CA 94089 | +1 408 227 4500 | sganu at arubanetworks dot com |

Abstract

This document contains a proposal for an AP to provide neighbour information as part of an
Authentication or (Re)Association Response frame, providing information for the non-AP STAto consider for subsequent Authentication/Association Request frames.

1. Background

The BSS transition Management Capability (10.24.7) “….enables improved throughput, effective data rate and/or QoS for the aggregate of STAs in a network by shifting (via transition) individual STA traffic loads to more appropriate points of association within the ESS.”

The BSS Transition Management capability currently applies after association. It is also advantageous for an AP to indicate an alternate AP(s) to a non-AP STA requesting Authentication or Association. This eliminates the need for a non-AP STA to Authenticate/Associate, only to be disconnected, and provided transition candidate BSSs.

Propose to Leverage the existing status code #82 at 510.58 (TGmc D1.0)

|  |  |  |
| --- | --- | --- |
| Status Code | Name  | Meaning |
| 82  | REJECTED\_WITH\_SUGGESTED\_BSS\_TRANSITION | Rejected with Suggested BSS Transition. |

1. Proposed Changes

***In 8.3.3.6, “Table 8-24 - Association Response frame body”, and 8.3.3.8 “Table 8-26—Reassociation Response frame body” and In 8.3.3.11, “Table 8-29 –Authentication Frame Body” insert a new entry immediately preceeding the “Last Vendor Specific” entry as shown below:***

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| ANA | Neighbor Report Element | One or more Neighbot Report Elements is present ifthe Reason Code is “REJECTED\_WITH\_SUGGESTED\_BSS\_TRANSITION” |

***In 8.3.3.11, “Table 8-30—Presence of fields and elements in Authentication frames, insert new rows as shown:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Authentication Algorithm** | **Authentication Transaction Sequence Number** | **Status Code** | **Presence of Fields 4-15** |
| Open System | 1 | Reserved | Not Present |
| Open System | 2 | Status | Not Present |
| Open System | 2 | 82 | One or more Neighbor Report Element(s) is present. |
|  |  |  |  |
| FT | 2 | Status | The Mobility Domain element is present if Status is0.The Fast BSS Transition and RSNEs are present ifStatus is 0 and dot11RSNAActivated is true. |
| FT | 2 | 82 | One or more Neighbor Report Element(s) is present. |
|  |  |  |  |
| SAE | 2 | Status | Send-Confirm is present. Confirm is present. |
| SAE | 2 | 82 | One or more Neighbor Report Element(s) is present. |

Potentially insert the following text: 10.3.4.3 “Authentication – destination STA” and 10.3.5.3 “AP Association Receipt procedures” May not be needed.

An AP may provide neighbor report information to a STA that requests authentication or association by responding with an Authentication or (Re)Association Response frame that includes a Reason Code of “REJECTED\_WITH\_SUGGESTED\_BSS\_TRANSITION” and one or more Neighbor Report Elements.

**References:**