IEEE P802.11
Wireless LANs

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| Comment Resolution for Subclauses 9.32.n |
| Date: 2013-09-11 |
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Abstract

This document provides resolution for CIDs 323, 266, 416, 431, 430, 91, 794, 16, 517, 697, 698, 795, 699

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| **CID** | **P** | **L** | **Sub C.** | **Comment** | **Propose Change** | **Resolution** |
| 323 | 158 | 16 | 9.32n | Relay operation can use 3-address MPDU and 3-address A-MSDU. However to implement such short frame, negotiation procedure is missing. |   | Reject: comment is not clear where it refers to a subclause where there is no frame defined. |
| 266 | 158.00 | 17 | 9.32n | How to transmit relay beacons is not defined in current spec draft | Accept the proposed text as in "Relay Beacon Transmission" |  Reject: transmission of beacons is well defined since relay AP is an AP. |
| 416 | 158.00 | 19 | 9.32n | Each relay establishes its own Relay BSS. Since Root AP BSS and Relay BSSs are overlapped, there will be more contention/collision in the extended BSS using Relays than single BSS even though they form the single Extended BSS. Coordinated transmission among Root AP and Relays are necessary. | Add coordinated transmission mechanism for Relays in the draft | withdrawn by the commenter |
| 431 | 158.00 | 19 | 9.32n | It may be needed to define how to determine the duration dedicated for specific relay when we use the relay as a leveled approach in the 802.11ah | as in the comment |  withdrawn by the commenter |
| 430 | 158.00 | 19 | 9.32n | It may be needed to define how to determine the spatial seperation when we use the relay in the 802.11ah | as in the comment | withdrawn by the commenter |
| 91 | 158.00 | 27 | 9.32n | Need to define how relay AP is activated based on the operating status of the relay STA | as in comment | Revised: The concept is adopted.TGah editor to make changes shown in 11-13-1139-00-00ahDiscussion: The Relay Enable/Disbale flag is defined in the Relay Element and Reachable Address, there are also corresponding MIB variables defined to address this CID. Please see the proposed resolution for more details |
| 794 | 158.00 | 27 | 9.32n | No architectural description can be found. | Add architectural description of Relay. |  Reject: it is defined in 4.11a |
| 16 | 158.00 | 33 | 9.32n | Sentence is not clear. Rephrase as: A Relay AP that is also a Relay STA shall set the value of the relay control field in the Relay element to a value that is greater than zero. | As in comment | Revised: The concept is adopted.TGah editor to make changes shown in 11-13-1139-00-00ahDiscussion: Relay AP shall not set the Relay control field to zero. |
| 517 | 158.00 | 33 | 9.32n | (If Relay function is not removed)A Relay is defined as a logical entity that consists of an Relay AP and a Relay STA. With this definition, the Relay AP and the Relay STA in the Relay may not be co-located. The Relay AP and the Relay STA may be located separately. | Change term "co-located" in the sixth paragraph of 9.32n to "corresponding". |  Revised: the sentence is removedTGah editor to make changes shown in 11-13-1139-00-00ah |
| 697 | 158.00 | 36 | 9.32n | The sentence in line 36 page 158 needs some clarification, as a Root AP should be an AP that does not have a co-located Relay STA that has associated with another AP. | Change the sentence in line 36 page 158 to the following:A Root AP is an AP that does not have a co-located logical Relay STA that has associated with another AP. A Root AP shall set the Relay Control field of transmitted Relay elements to 0. |  Revised: The sentence is removed. There are some additions to reflect the change.TGah editor to make changes shown in 11-13-1139-00-00ah |
| 698 | 158.00 | 39 | 9.32n | There seem an conceputal issue with the sentence in line 39 page 158, i.e., How does an AP associate with another AP? Note that, based on the current 11ah draft spec, a Relay has two logical components, Relay STA and Relay AP, where Relay STA associates with another AP.Plus, a Relay may associate with a Root AP, i.e., not always associate with another Relay AP. | Change the sentence in line 39 page 158 to the following:A Relay AP that is not a Root AP shall use same SSID as the AP to which its co-located Relay STA is associated. |  Revised: The comment is accepted with a minor change of calling co-located Relay STA the corresponding Relay STA.TGah editor to make changes shown in 11-13-1139-00-00ah |
| 795 | 158.00 | 44 | 9.32n | No detail of layered structure can be found. | Current draft is premature to specific comments. |  Reject: the comment does not clearly identify the issue (what is a layered structure) and fails to identify proposed changes  |
| 699 | 158.00 | 50 | 9.32n | which frame will carry the Reachable Address element?If it isthen Reachable Address Update frame, then what's the difference between the sentence in line 50 and the setence in line 44 on page 158? | provide clarification regarding which frame is used in the sentence in line 50 page 158. | Reject: It is defined in 8.5.23b.2. |
| 695 | 158.00 |   | 9.32n | The sentence "A Relay STA shall send a Reachable Address Update frame to the AP to which it is associated the currentlist of reachable addresses when one of the following conditions occurs:1) A new STA associates with the Relay AP2) A STA is disassociated or deautheticated from the Relay AP" is not clear. | Change"1) A new STA associates with the Relay AP2) A STA is disassociated or deautheticated from the Relay AP"to"1) A new STA associates with the Relay AP that is co-located with the Relay STA2) A STA is disassociated or deautheticated from the Relay AP that is co-located with the Relay STA" |  Revised: the comment is basically accepted with a minor replacement of “co-located” to “the Relay AP in the same Relay entity as Relay STA”TGah editor to make changes shown in 11-13-1139-00-00ah |

* Relay operation

*Instruction to editor: Please change this subclause as follows:*

In thqis subclause, STA means non-AP STA.

Relay STA is an STA with dot11RelaySTAOperation is set to true. The dot11RelaySTAOperation is set as defined below.

Relay AP is an AP with dot11RelayAPOperation is true.

The dot11RelayAPOperation of an AP in a Relay may be set to true only if dot11RelaySTAOperation of a non-AP STA in the Relay is true, otherwise it shall set dot11RelayAPOperation to false.

Note: A Relay AP is an AP, that follows the rules described in this subclause.

A non-AP STA with dot11RelaySTACapable set to true shall include the Relay element in Association or Probe Requests.

A Relay AP shall include a Relay element in transmitted Beacon and Probe Response frames.

A non-AP STA with dot11RelaySTACapable set to true which receives a Relay element from the AP which it is associated to may set dot11RelaySTAOperation to true, otherwise it shall set dot11RelaySTAOperation to false.

An AP with dot11RelaySupport set to true shall include the Relay element in its Beacons.An AP with dot11RelaySupport may include the Relay element in its Probe/ Association and Reassociation Responses.

A Root AP is defined as an AP with dot11RelaySupport set to true that sets the Relay Control field of transmitted Relay elements to 0.

A Relay AP shall not set the Relay Control field of transmitted Relay elements to 0.

A Relay AP of a Relay shall use same SSID as the AP to which the Relay STA of the Relay is associated.

A Relay STA of a Relay shall send a Reachable Address Update frame to the parent AP to which it is associated indicating the current list of reachable addresses, when one of the following conditions occurs:

1. A new STA associates with the Relay AP of the Relay
2. A STA is disassociated or deautheticated from the Relay AP of the Relay
3. A Reachable Address Update frame is received at the Relay AP of the Relay

A Relay STA may send a Reachable Address IE to the Relay AP to which it is associated indicating the current list of reachable addresses when associating.