IEEE P802.11
Wireless LANs

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| **Comment Resolution for Subclause 8.7** |
| **Date:** 2013-07-01 |
| **Author(s):** |
| **Name** | **Affiliation** | **Address** | **Phone** | **email** |
| Alfred Asterjadhi | Qualcomm Inc. | 5775 Morehouse Dr San Diego, CA 92109 | +1-858-658-5302 | aasterja@qti.qualcomm.com |
| Menzo Wentink | Qualcomm Inc. | Straatweg 66-S, Breukelen, The Netherlands | +31-85-876-8751 | mwentink@qti.qualcomm.com |
| Simone Merlin | Qualcomm Inc. |  |  | smerlin@qti.qualcomm.com |

Abstract

This document provides comment resolution for TGah Draft 0.1 Comment Collection 9 with these CIDs: 18, 119, 360, 532, 533, 660, 661, 662, and 869.

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 TGah Draft. This introduction is not part of the adopted material.

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

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

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| **CID** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 360 | 115.57 | 8.7 | nice try - but please! Do NOT do this: "In this subclause, STA means non-AP STA" - everywhere in the standard, everyone understands STA to mean both non-AP STA and AP. Do not try to suspend that common notion for one subclause - simply spell out non-AP STA everywhere. | replace all instances of STA in this subclause with non-AP STA | Revised – TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CID 360. |

**Discussion:***None.*

* **MAC frame format for short frames**

**Instruction to Editor: *Please remove the following line in clause 8.7:***

**Instruction to Editor: *Please modify Table 8-301b as follows:***

|  |
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| * **From DS values in short frames**
 |
|  **From DS field** | **Meaning** | **Use** |
| 0 | A1 contains the MAC address of the receiverA2 is an SID which contains the AID of the transmitter A3 (if present) contains the Destination AddressA4 (if present) contains the Source Address | For frames transmited by a Non-AP STA to an APFor frames transmitted from a Non-AP STA to Non-AP STA (direct link) |
| 1 | A1 is an SID which contains the AID of the receiverA2 is the MAC address of the transmitterA3 (if present) contains the Destination AddressA4 (if present) contains the Source Address | AP to Non-AP STA |

* **Address fields**

**Instruction to Editor: *Please make the following changes in clause 8.7.3.2:***

The recipient of the frame (A1) or the transmitter of the frame (A2) can be identified by the AID subfield located in the Short ID (SID) field depending on the value of the From DS subfield of the Frame Control field as described in 8.7.3.1 (Frame Control field). A group of receiving non-AP STAs of the frame can be identified by the AID subfield with a MID value, as described in 9.32q (Flexible Multicast), located in the Short ID (SID) field. The length of the SID field is 2 octets and is illustrated in Figure 8-532c (SID field).

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| **CID** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 532 | 116.22 | 8.7.2 | In Figure 8-532a Short frame format, the A3 field and A4 filed are optional. Their length shall be " 0 or 6". | Modify length of the A3 field and A4 filed to " 0 or 6". | Revised –TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 532, 660 and 869. |
| 660 | 115.63 | 8.7.1 | "In short frame, is Sequence Control actually an optional or mandatory field?Note that there are two conflict sentencs about this: line 63 page 115 and line 8 page 116." | fix the inconsistence between line 63 page 115 and line 8 page 116 for the Sequence Control field optional vs. mandatory issue in the short frame design. | Revised – TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 532, 660 and 869. |
| 869 | 116.22 | 8.7.2 | "In Figure 8-532a, A3 and A4 are optional fields in a short frame format.So, change the size of the field from ""6"" to ""0 or 6""." | In Figure 8-532a, change the size of the A3 and A4 fields from "6" to "0 or 6". | Revised –See comment resolution for CID 532. |

**Discussion:***CID 660:**Clarified that the Sequence Control field can be optionally present depending on the short frame type*

* **General short frame format**

**Instruction to Editor: *Please make the following changes in clause 8.7.2:***

Figure 8-532a (Short frame format) depicts the general short MAC frame format. The first three fields (Frame Control, A1 and A2) and the lastfield FCS are always present in short frames. The Sequence Control, A3, A4 and Frame body fields are optionally present. Each field is defined in 8.7.3 (Short frame fields).

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|  |  |  |  |  |
|  | Frame Control | A1 | A2  | Sequence Control | A3 | A4 | Frame Body | FCS |
| Octets:  | 2 | 2 or 6 | 6 or 2 | 0 or 2 | 0 or 6 | 0 or 6 | variable | 4 |
| * **Short frame format**
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| **CID** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 18 | 117.20 | 8.7.2 | short data frames with 2 full MAC headers are defined in the SFD but not in the draft | Add 2 Full mac header short data frames as in SFD | Revised – TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 18. |

**Discussion:** *The commenter is correct that short data frames with 2 full MAC headers are defined in the TGah SFD but are missing in the D0.1 proposed comment resolution is to add the short data type in D0.1. In addition some minor clarification text and missing references in the text.*

* **General short frame format**

**Instruction to Editor: *Please make the following changes to Table 8-301a:***

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| * **Short frame types**
 |
| Type  | Type description |
| 0 | Data* Either A1 or A2 is an SID (defined in 8.7.3.2), as determined by the From DS field in the FC field
 |
| 1 | Management* Either A1 or A2 is an SID (defined in 8.7.3.2), as determined by the From DS field in the FC field
* Management subtypes are encoded in the TID subfield in the FC field
 |
| <ANA> | Data* Both A1 and A2 fields contain MAC addresses
 |
| <ANA>-14 | Reserved |
| 15 | Extension (currently reserved) |

**Instruction to Editor: *Please make the following changes to the paragraph immediately after Table 8-301a:***

Short frames with type value set to 0 define a short data frame where either A1 or A2 field is an SID as indicated in Table 8-301b (From DS values in short frames). Short frames with type value set to 1 define a short management frame where either A1 or A2 field is an SID as indicated in Table 8-301b (From DS values in short frames). Short frames with type value set to <ANA> define a short data frame where both A1 and A2 fields contain MAC addresses.

The From DS field is 1 bit in length and defines the addressing of short frames with values of the type field less than 2, as defined in Table 8-301b (From DS values in short frames).

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| **CID** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 119 | 118.1 | 8.7.3.1 | How is it signaled that the Implicit ACK is used? | Indicate the appropriate signaling | Revised –TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 119. |

**Discussion:** *The commenter is correct that signaling for implicit ACK is missing while signaling for explicit ACK is included in the description. Given that signaling for both mechanisms is defined in subclause 9.32n.3 the proposed resolution is to add a link to that subclause.*

* **Frame Control field**

**Instruction to Editor: *Please make the following change in the following paragrapsh of clause 8.7.3.1:***

The Relayed Frame field is 1 bit in length and indicates that the current TXOP is shared with the Relay STA using the TXOP sharing procedures for relays described in 9.32n.3 (Procedures of TXOP sharing).

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| **CID** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 533 | 116.51 | 8.7.3.1 | Components of Frame Control field are subfields. | Replace term "field" by "subfield" if appropriate throughout subclause 8.7.3.1. | Revised – TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 533. |

**Discussion:** *Actually in current standard they are called fields when described. Proposed comment resolution is to make it clearer.*

* **Frame Control field**

**Instruction to Editor: *Please make the following changes in clause 8.7.3.1:***

The Protocol Version field is 2 bits in length and is defined in 8.2.4.1.2 (Protocol Version field). For Short frames the value of the protocol version is 1.

The Type field is 4 bits in length and identifies the type of the frame, as defined in Table 8-301a (Short frame types).

All other values of the type field are reserved.

The From DS field is 1 bit in length and defines the addressing of short frames, as defined in Table 8-301b (From DS values in short frames).

The More Fragments field is 1 bit in length and is described in 8.2.4.1.5 (More Fragments field).

The Power Management field is 1 bit in length and is described in 8.2.4.1.7 (Power Management field).

The EOSP field is 1 bit in length and is described in 8.2.4.5.3 (EOSP (end of service period) subfield).

The Protected Frame field is 1 bit in length and is described in 8.2.4.1.9 (Protected Frame field).

The More Data field is 1 bit in length and is described in 8.2.4.1.8 (More Data field).

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| **CID** | **P.L** | **SC** | **Comment** | **Proposed Change** | **Resolution** |
| 661 | 118.10 | 8.7.3.1 | """TBD"" link in the text:""The TID field for short management frames (type value set to 1) is used to indicate short management frame subtypes as described in TBD.""" | Correct the link. | Revised –TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 661 and 662. |
| 662 | 118.7 | 8.7.3.1 | "The TID in the 11ah short frame is not exactly the same TID in QoS control field in exsiting 802.11 standards, e.g.,1). Not the same size, 3-bit vs. 4-bit2). Used as a subtype field for management short frame.Therefore, a different field name should be used, e.g., Short Frame TID (SF-TID), or short frame TID / management subtype.In addition, since the the 3-bit TID is used as a subtype field for management short frame. It would be better to put TID field right after the Type field." | "Make the following changes:1. Rename the TID in short frame to Short Frame TID / Subtype, i.e., (SF-TID / Subtype).2. in Figure 8-532b and related description text, relocate the 3-bit SF-TID/Subtype field right after the Type field and before the ""From DS"" field." | Revised– TGah editor to make changes shown in 11-13-0816-01-00ah under the heading for CIDs 661 and 662. |

**Discussion:**

*CID 661 - The commenter is correct that the link to the subsection for short management frames is missing. Proposed resolution is to add a link to a new subclause 8.7.3a which defines Short Management frames. The content of that subclause is included as a comment resolution for CID #27.*

*CID 662 – Agree in principle with the commenter. Proposed comment resolution is to switch order of the fields and clarify the interpretation of the field for different types of short frames.*

* **Frame Control field**

**Instruction to Editor: *Please make the following changes in clause 8.7.3.1:***

The format of the Frame Control field of the short MAC header is illustrated in Figure 8-532b (Frame Control field).

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|  | B0  B1 | B2 B5 | B6 B8 | B9 | B10 | B11 | B12 | B13 | B14 | B15 |  |
|  | Protocol Version | Type | PTID/Subtype | From DS | More Fragments | Power Management | MoreData | ProtectedFrame | End ofServicePeriod | Relayed Frame |  |
| Bits: | 2 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
|  | * **Frame Control field**
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| * **Short frame types**
 |
| Type  | Type description |
| 0 | Data* A1 or A2 is an SID (defined in 8.7.3.2), as determined by the From DS subfield in the FC field
 |
| 1 | Management* A1 or A2 is an SID (defined in 8.7.3.2), as determined by the From DS subfield in the FC field
 |
| 2-14 | Reserved |
| 15 | Extension (currently reserved) |

Short frames with type value set to 0 define a short data frame. Short frames with type value set to 1 define a short management frame. All other values of the type field are reserved.The PTID/Subtype field is 3 bits in length and for short data frames (type field set to 0 and <ANA>) it contains the 3 LSBs of the TID subfield defined in 8.2.4.5.2 (TID subfield).

The PTID/Subtype field for short management frames (type field set to 1) is used to indicate short management frame subtypes as described in 8.7.3a (Short Management frames).