IEEE P802.11  
Wireless LANs

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| Miscellaneous Part 2 | | | | |
| Date: 2016-01-17 | | | | |
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Abstract

This submission proposes resolutions for multiple comments related to TGah D5.0 (28 CIDs):

* 8007, 8345, 8042, 8301, 8367, 8109, 8289,
* 8140, 8473, 8379, 8013, 8380, 8382, 8014, 8383,
* 8385, 8016, 8022, 8025, 8392, 8395, 8404, 8453,
* 8149, 8330, 8517,
* 8533, 8329

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Updated Figure 9.1 for CID 8473 removing blocks for HCCA, MCCA, and PCF.

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 “TGah 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.***

# Pars I

|  |  |  |  |  |  |
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| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 8007 | Seok, Yongho | 10.26 | "enable either reducing the energy consumption of an STA or increasing the achievable range between an S1G AP and an S1G non-AP STA.": reducing and increasing are not the sorts of things that can be enabled -- though reduction and increase can. Wouldn't it be more accurate to say "usable" rather than "achievable"? And, since the first half is just about a STA, why not make the rest about an AP and a non-AP STA (note that no claims are being made about every AP and STA, just some of them)? | "enable either reducing the energy consumption of a STA"or increasing the achievable range between an S1G AP and an S1G non-AP STA." with " work to either reduce a STA's energy consumption or increase the usable range between an AP and a non-AP STA. " | Revised –  Proposed resolution is the same as the proposed changes by CID 8343.  TGah editor: Replace "enable either reducing the energy consumption of an STA or increasing the achievable range between an S1G AP and an S1G non-AP STA." with " help either reduce a STA's energy consumption or increase the usable range between an AP and a non-AP STA." |
| 8345 | Hunter, David | 10.28 | "The S1G AP can provide either or both of sensor services and offloading services.": broken English, and this doesn't need "either or both of". In addition, neither of these terms has been introduced. | Either: First provide descriptions of what "sensor service" and "offloading service" are, andd then replace "provide either of both of sensor services and offloading services." with "provide sensor services and/or offloading services." Or: Delete "The S1G AP can provide either or both of sensor services and offloading services." | Revised –  Agree in principle with the comment. Since this Subclause’s purpose is to describe high level features the proposed change is to delete the sentence.  TGah editor: Remove "The S1G AP can provide either or both of sensor services and offloading services." |
| 8042 | Stephens, Adrian | 11.26 | "A relay AP is an AP which offers" -- that / which confusion. Which should generally be preceeded by a comma or a preposition. | Incorrect uses need to be replaced with ", which" or "that" as appropriate. The following uses are incorrect:  next STA which may be non-AP STA which is associated (2x)  a channel which is not the primary channel  in a manner which should approximate  AID and which started upon (2x)  allow STAs which don't listen  is an SID which contains (2X) bit fields which describe the NDP CMAC  3-bit value which identifies  BSS AIDs which are present Compressed SSID which is (2x) Duration field which depends  exchange sequences which can lead  S1G-MCS which indicate (2x)  RESPONSE\_INDICATION value which is defined  MAC address which don't have (and expand "don't" to do not) Negotiation Request which is either  Network Option which is defined (2x)  next STA which may be the  OBSS AP which observes (5x) of STAs which are allowed  4 page slices which appear in the DTIM integer which corresponds STA which most recently  STA which has (7x) frame which is (2x) scheduled TWT which is within RAW which may be  beam which covers  An SST STA which selected STA and which was transmitted PRAW which is specified  m which is located channels which are allowed (2x) STAs which are Sectorized  MCS which is (2x)  STAs which respond the AP which sector the AP which sends  non-TIM mode which also wants  element which contains group which contains  element which includes | Revised—  TGah editor: Replace:  “next STA which may be” with “next STA that may be”  “non-AP STA which is associated” with “non-AP STA that is associated” (2x)  “a channel which is not the primary channel” with “a channel that is not the primary channel”  “in a manner which should approximate” with “in a manner that should approximate”  “AID and which started upon” with “AID and that started upon” (2x)  “allow STAs which don't listen” with “allow STAs that do not listen”  “is an SID which contains” with “is an SID, which contains” (2X)  “bit fields which describe the NDP CMAC” with “bit fields, which describe the NDP CMAC”  “3-bit value which identifies” with “3-bit value, which identifies”  “BSS AIDs which are present” with “BSS AIDs, which are present”  “Compressed SSID which is” with “Compressed SSID, which is” (2x)  “Duration field which depends” with “Duration field that depends”  “exchange sequences which can lead” with “exchange sequences, which can lead”  “S1G-MCS which indicate” with “S1G-MCS, which indicate” (2x)  “RESPONSE\_INDICATION value which is defined” with ““RESPONSE\_INDICATION value, which is defined”  “MAC address which don't have” with “MAC address, which do not have”  “Negotiation Request which is either” with “Negotiation Request, which is either”  “Network Option which is defined” with “Network Option, which is defined” (2x)  “next STA which may be the” with “next STA that may be the”  “OBSS AP which observes” with “OBSS AP, which observes” (5x)  “of STAs which are allowed” with “of STAs, which are allowed”  “4 page slices which appear in the DTIM” with “4 page slices, which appear in the DTIM”  “integer which corresponds” with “integer, which corresponds”  “STA which most recently” with “STA, which most recently”  “STA which has” with “STA, which has” (7x)  “frame which is” with “frame, which is” (2x)  “scheduled TWT which is within” with “scheduled TWT, which is within”  “RAW which may be” with “RAW, which may be”  “beam which covers” with “beam, which covers”  “An SST STA which selected” with “An SST STA that selected”  “STA and which was transmitted” with “STA, which was transmitted”  “PRAW which is specified” with “PRAW, which is specified”  “m which is located” with “m, which is located”  “channels which are allowed” with “channels that are allowed” (2x)  “STAs which are Sectorized” with “STAs, which are sectorized”  “MCS which is” with “MCS that is” (2x)  “STAs which respond” with “STAs that respond”  “which sector is the best sector found” with “ the best sector found”  “the AP which sends” with “the AP that sends”  “non-TIM mode which also wants” with “non-TIM mode, which also wants”  “element which contains” with “element that contains”  “group which contains” with “group that contains”  “element which includes” with ““elements, which includes” |
| 8301 | Wang, Xiaofei | 13.38 | The definition of the paramter ReceiveTIMs is opposite of the literal meaning of the parameter name "ReceiveTIMs". Sugges thatt the parameter should be defined consistently with the literal meaning of the parameter name, similar to the definition of the parameter ReceiveDTIMs in the same request | Change the description of the parameter ReceiveTIMs into "For an S1G STA, this parameter is set to the boolean complement of dot11NonTIMModeActivated. When true, this parameter causes the S1G STA to awaken to receive Beacon frame as determined by the STA's ListenInterval and the ReceiveDTIMs parameter. When false, this parameter causes the S1G STA to transmit at least one frame every listen interval without receiving a Beacon frame as determined by the STA's ListenInterval parameter." | Accepted  Author’s note: A redline of the text with the proposed change is shown below:  For an S1G STA, this parameter is set to the boolean complement of dot11NonTIMModeActivated. When true, this parameter causes the S1G STA to awaken to receive Beacon frame as determined by the STA's ListenInterval and the ReceiveDTIMs parameter. When false, this parameter causes the S1G STA to transmit at least one frame every listen interval without receiving a Beacon frame as determined by the STA's ListenInterval parameter. |
| 8367 | Hunter, David | 41.45 | "primitive shall contain a ResultCode": normative requirement in a definition (and is not part of the meaning of the defined term). | Replace: "tuple, the MLME response in the resulting MLME-START.confirm primitive shall contain a ResultCode parameter whose value is not SUCCESS." with: ."tuple, the MLME responds by invoking the MLME-START.confirm primitive with a ResultCode parameter whose value is not SUCCESS." | Rejected –  Same terminology is used in several parts of clause 6 in REVmc. For example in 6.3.11.2.4:  … the MLME response in the resulting MLME-START.confirm primitive shall contain a ResultCode parameter that is not set to the value  SUCCESS.” |
| 8109 | Stephens, Adrian | 143.56 | TGmb and TGmc have moved away from "multicast" to "group", as this is closer to what is in the format of the MAC address field.  As 802.11ah has introduced the "multicast AID" terminology, it should follow the spirit of the usage in its baseline. | Change "Multicast AID" to "Group AID" throughout. | Revised—  Agree in principle with the comment.  TGah editor: Replace “Multicast AID” with “Group AID”, “multicast AID” with “group AID”, and “multicastAID” with “groupAID” throughout the draft. |
| 8289 | Hamilton, Mark | 170.1 | There are multiple "Reachable Address" subfields in this element, not a single "Reachable Addresses field" | Change "the Reachable Addresses field" to "the Reachable Address fields" (unless this line is deleted, per my other comment) | Revised –  Proposed resolution is inline with the suggested changes provided by CID 8103 i.e. defines a Reachable Addresses field that contains one or more Reachable Address fields.  TGah editor:  Replace all Reachable Address fields of Figure 8-577bq (Reachable Address field format” with a single field “Reachable Addresses field” with length “Variable”.  Insert “The Reachable Addresses field contains one or more Reachable Address subfields.” In P170L4. Replace “Reachable Address field[s]” with “Reachable Address subfield[s]” throughout. |

# Pars II

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| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 8140 | Stephens, Adrian | 213.28 | "STAs that encounter an element ID they do not recognize in the frame body of a received PV1 Management frame ignore that element and continue to parse the remainder of the PV1 Management frame body (if any) for additional elements with recognizable element IDs." -- this is not a description of frame format. | Move cited text into clause 9. | Revised –  This paragraph is the same as the paragraph that can be found in 8.3.3.1 (Format of Management frames) and provides description for PV1 Management frames. For consistency the proposed resolution is to merge the three paragraphs (this paragraph with the preceding one so that it clarifies the logical connection of the description with the frame body of the frames.  TGah editor: Merge paragraphs from P213L22 to P213L32 into one single paragraph. |
| 8473 | Asterjadhi, Alfred | 233.39 | The figure is not inline with REVmc D4.0 (for starters there are not two figures). Ensure consistency of the figure with the baseline figure. | As in comment. | Revised –  Agree in principle with the comment. Proposed resolution ensures consistency with the baseline for subclause 9.2.1.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8473. |
| 8379 | Hunter, David | 236.23 | Even though 11mc contains the term "MAC entity" in some locations, the "entity" part is superfluous. It is not needed here, either. Also, this compound sentence needs to be split up for clarity. | Replace "by all MAC entities, and an additonal second virtual CS mechanism shall be provided by an S1G MAC entity. The first" with "by all MACs. The second virtual CS mechanism is an additional capability that shall be provided by all S1G MACs. {New Paragraph} The first". | Revised –  Agree in principle with the comment. Proposed resolution is inline with the suggested change.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8379. |
| 8013 | Seok, Yongho | 236.23 | Even though 11mc has "MAC entity" in some locations, the "entity" part is superfluous. The compound sentence needs to be split up for clarity. | Replace "by all MAC entities, and an additonal second virtual CS mechanism shall be provided by an S1G MAC entity. The first" with "by all MACs. The second virtual CS mechanism is an additional capability that shall be provided by all S1G MACs. {New Paragraph} The first". | Revised –  (Duplicate CID)  Agree in principle with the comment. Proposed resolution ensures consistency with the baseline for subclause 9.2.1.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8013. |
| 8380 | Hunter, David | 236.33 | "For S1G STAs, " and, below, "For non-S1G STAs, ": this writing style is confusing because it emphasizes separate types of STAs when these DCF descriptions should be about the CS mechanisms. Emphasizing the mechanisms simplifies the sentences. | Replace "For S1G STAs, the duration information is" with "Duration information in S1G STAs is". On line 54 replace the first two sentences with: "The CS mechanism combines the NAV state and the STA's transmitter status (and in S1G STAs also the RID state) with physical CS to determine the busy/idle state of the medium.". On lne 60 replace "For S1G STAs, when both NAV and RID counters are 0, the virtual CS indication is that the medium is idle; when either the NAV counter or the RID counter is nonzero the indication is that the medium is busy." with "In S1G STAs, if both NAV and RID counters are 0, the virtual CS indication is that the medium is idle, but if either is nonzero, the indication is that the medium is busy.". | Revised –  Agree in principle with the commenter for most of the proposed changes. Some words are kept as they were for consistency throughtou the paragraphs.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8380. |
| 8382 | Hunter, David | 236.60 | The beginning of the paragraph about the CS mechanism (starting on line 54) mentions the combination of the NAV, transmitter status and RID. However, the sentence that begins on line 60, "For S1G STAs, when both NAV and RID counters are 0,..." loses the transmitter status. Is transmitter status omitted from the S1G combined mechanism? If so, then state directly that it is. If not, then include it in this sentence. | Include transmitter status in the sentence that begins on line 60. Or combine the S1G STA statement with the DMG-with-multiple-NAV-timers statement. | Rejected –  The statement “The medium shall be determined to be busy when the STA is transmitting” applies to any STA, including S1G STAs. |
| 8014 | Seok, Yongho | 236.33 | "For S1G STAs, " and, below, "For non-S1G STAs, ": this writing style is confusing because it emphasizes separate types of STAs when these DCF descriptions should be about the CS mechanisms. Emphasizing the mechanisms simplifies the sentences. | Replace "For S1G STAs, the duration information is" with "Duration information in S1G STAs is".  On line 54 replace the first two sentences with: "The CS mechanism combines the NAV state and the STA's transmitter status (and in S1G STAs also the RID state) with physical CS to determine the busy/idle state of the medium.".  On lne 60 replace "For S1G STAs, when both NAV and RID counters are 0, the virtual CS indication is that the medium is idle; when either the NAV counter or the RID counter is nonzero the indication is that the medium is busy." with "In S1G STAs, if both NAV and RID counters are 0, the virtual CS indication is that the medium is idle, but if either is nonzero, the indication is that the medium is busy.". | Revised –  (Duplicate CID)  Agree in principle with the commenter for most of the proposed changes. Some words are kept as they were for consistency throughtou the paragraphs.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8014. |
| 8383 | Hunter, David | 237.20 | SIFS application list: adding all of the different frame names to the number already there creates confusing and perhaps incorrect statements. For instance, does the fragment "that is an immediate response to an NDP Paging frame" apply to PPDU, BlockAck frame, NDP BlockAck frame and BAT frame? And does "that is a response to an NDP Paging frame" apply to A-MPDU, (NDP) PS-Poll frame, and uplink trigger frame? | Replace the first sentence with a list whose lead-in clause is: "The SIFS shall be used prior to transmission of each of the following frames:" and follow this with a bulleted list of the frame names, each including the appropriate qualifier for that name ("that is an ..."). | Revised –  Agree in principle with the comment. Proposed resolution is to provide the frames as an itemized list.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8383. |

***TGah editor: Replace 9.2.1 of the TGah draft with 9.2.1 listed below (#8473):***

* General

***Change the first paragraph of this subclause as follows:***

The MAC architecture is shown in Figure 9-1 (Non-DMG non-S1G STA MAC architecture), Figure 9.1a (S1G STA MAC architecture), and Figure 9-2 (DMG STA MAC architecture).

***Change the caption of Figure 9-1 as follows:***

**Figure 9-1—Non-DMG non-S1G STA MAC architecture**

***Change the 2nd paragraph of this subclause as follows:***

In a non-DMG and non-S1G STA(#3460):

* The MAC provides the PCF, HCF and MCF service using the services of the DCF.
* The PCF is optionally present in non-mesh STAs and absent otherwise.
* The HCF is present in QoS STAs and absent otherwise.
* The MCF is present in mesh STAs and absent otherwise.

***Insert a new paragraph and a new figure after the 2nd paragraph:***

In an S1G STA:

* The MAC provides EDCA service using the(#Ed) services of the DCF.
* The RAW is optionally present
* The TWT is optionally present

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| C:\Users\aasterja.NA\Desktop\Qgenesis\SFD_11ah_Spec_Text\IEEE_Editor\IEEE802.11ah_D5.0_to_D6.0\Figure-CL9-MAC-architecture.wmf |
| Figure 9-1a S1G STA MAC architecture |

**9.3.2.1 CS mechanism**

***TGah Editor: Change the 3rd paragraph of the subclause as follows (#8379, 8013):***

A first virtual CS mechanism shall be provided by all ~~the~~ MACs. A second virtual CS mechanism shall be provided by an S1G MAC.

~~This~~ The first mechanism is referred to as the NAV. The NAV maintains a prediction of future traffic on the medium based on duration information that is announced in RTS/CTS frames by non-DMG STAs and RTS/DMG CTS frames by DMG STAs prior to the actual exchange of data. The duration information is also available in the MAC headers of all frames sent during the CP other than PV1 MAC frames and PS-Poll frames and during the BTI, the A-BFT, the ATI, the CBAP, and the SP.

***TGah Editor: Change the paragraph below as follows (#8380):***

The duration information in S1G STAs is also available in PS-Poll+BDT frames, NDP CTS frames, in NDP Ack frames with Idle Indication field equal to 0, and in NDP\_2M PS-Poll-Ack frames with Idle Indication field equal to 0.

***TGah Editor: Change the paragraph below as follows (#8380, 8014):***

The CS mechanism combines the NAV state, in S1G STAs also the RID state, and the STA's transmitter status with physical CS to determine the busy/idle state of the medium. The NAV and RID may be thought of as ~~a~~ counters, which count~~s~~ down to 0 at a uniform rate. In non-S1G STAs, ~~W~~when the NAV counter is 0, the virtual CS indication is that the medium is idle; when the counter is nonzero, the indication is busy. In S1G STAs, when both NAV and RID counters are 0, the virtual CS indication is that the medium is idle; when either the NAV counter or the RID counter is nonzero the indication is that the medium is busy. If a DMG STA supports multiple NAV timers as defined in 9.36.10 (Updating multiple NAV timers) and all counters are 0, the virtual CS indication is that the medium is idle; when at least one of the counters is nonzero, the indication is busy. The medium shall be determined to be busy when the STA is transmitting.

**9.3.2.3.3 SIFS**

***TGah Editor: Change the paragraph below as follows (#8383):***

The SIFS shall be used prior to transmission of each of the following frames:

* An (NDP) Ack frame, a TACK frame, a STACK frame, NDP PS-Poll-Ack frame, a (NDP) CTS frame,
* A PPDU containing a BlockAck frame, NDP BlockAck frame or BAT frame that is an immediate response to either a BlockAckReq frame or an A-MPDU,
* An (NDP) PS-Poll frame or uplink trigger frame that is a response to an NDP Paging frame,
* A DMG CTS frame, a DMG DTS frame, an SSW-Ack frame, a Grant Ack frame,
* A response frame transmitted in the ATI, the second or subsequent MPDU of a fragment burst, and by a STA responding to any polling by the PCF.
* A frame within a series of NDP sector training frames transmitted by an S1G AP after a sector training announcement
* An RTS frame that is sent as an immediate response to a PS-Poll(+BDT)frame.

The SIFS may also be used by a PC for any types of frames during the CFP (see 9.4 (PCF)). The SIFS is the time from the end of the last symbol, or signal extension if present, of the previous frame to the beginning of the first symbol of the preamble of the subsequent frame as seen at the air interface.

# Pars III

|  |  |  |  |  |  |
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| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 8385 | Hunter, David | 239.29 | There are qualifiers on top of qualifiers in the paragraph that includes: "In addition to the NAV update rules", "if it is greater than", "information received from", and "except when". These overlapping rules need at least some simplification. | Replace "new NAV value if it is greater than the current NAV value, with the informaton received in the Duration field of frames of type: NDP CTS," with "new NAV value, if it receives information that the NAV is greater than the STA's current NAV value. This information shall be received in the Duration field of the following frames: NDP CTS," | Accepted |
| 8016 | Seok, Yongho | 239.29 | There are qualifiers on top of qualifiers in the paragraph that includes: "In addition to the NAV update rules", "if it is greater than", "information received from", and "except when". These overlapping rules need at least some simplification. | Replace "new NAV value if it is greater than the current NAV value, with the informaton received in the Duration field of frames of type: NDP CTS,"  with "new NAV value, if it receives information that the NAV is greater than the STA's current NAV value. This information shall be received in the Duration field of the following frames: NDP CTS," | Accepted |
| 8022 | Seok, Yongho | 241.21 | "except when the PPDU either contains a valid nonzero Duration field that uddates the NAV ... or it is intended to the S1G STA in which case": confusing. And what does "intended to the S1G STA" mean? | Replace "updates the NAV as described ... the NAV) or it is intended to the S1G STA in which case the RID" with "updates the NAV, as described ... the NAV), or it is intended to be received by the S1G STA, In both of these cases the RID". | Revised—  Agree in principle with the comment. Proposed resolution incorporates the proposed changes.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8022. |
| 8025 | Seok, Yongho | 241.41 | "The RID ... is omitted in the figure because it is 0 ... while the RID is reset for the STA to which the Data was addressed.: huh? One "RID" is the sort of thing that is in a figure; the other "RID" is reset for a STA. This is using one word to mean very different things -- and in the same sentence. | Replace "The RID for STAs that receive but not that of the Data frame is omitted ... in this example) while the RID is reset for the STA to which the Data was addressed." with "For STAs that receive ... but not that of the Data frame, the RID counter is omitted in the figure because it is 0 (i.e, ... in this example). But for the STA to which the Data was addressed, the RID is reset." [Somewhat better, but needs a better description than "is 0" as a contrast to "is reset". Or just show the RID counter in the figure...] | Revised –  Agree in principle with the comment. Proposed resolution clarifies this ambiguity.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8025. |
| 8392 | Hunter, David | 241.21 | "except when the PPDU either contains a valid nonzero Duration field that uddates the NAV ... or it is intended to the S1G STA in which case": confusing. And what does "intended to the S1G STA" mean? | Replace "updates the NAV as described ... the NAV) or it is intended to the S1G STA in which case the RID" with "updates the NAV, as described ... the NAV), or it is intended to be received by the S1G STA. In both of these cases the RID". | Revised –  (Duplicate CID with 8022)  Agree in principle with the comment. Proposed resolution incorporates the proposed changes.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8392. |
| 8395 | Hunter, David | 241.41 | "The RID ... is omitted in the figure because it is 0 ... while the RID is reset for the STA to which the Data was addressed.: huh? One "RID" is the sort of thing that is in a figure; the other "RID" is reset for a STA. This is using one word to mean very different things -- and in the same sentence. | Replace "The RID for STAs that receive but not that of the Data frame is omitted ... in this example) while the RID is reset for the STA to which the Data was addressed." with "For STAs that receive ... but not that of the Data frame, the RID counter is omitted in the figure because it is 0 (i.e, ... in this example). But for the STA to which the Data was addressed, the RID is reset." [Somewhat better, but needs a better description than "is 0" as a contrast to "is reset". Or just show the RID counter in the figure...] | Revised –  (Duplicate CID with 8025)  Agree in principle with the comment. Proposed resolution clarifies this ambiguity.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8395. |
| 8404 | Hunter, David | 250.34 | "the value in the Duration field of the NDP CTS frame shall protect the pending transmission plus possibly an (NDP) Ack frame." what does "possibly" mean inside a shall statement? | Replace "protect the pending transmisssion plus possibly and (NDP) Ack frame." with "protect the pending transmission and may protect a resulting (NDP) Ack frame." | Revised –  Agree in principle with the comment. Proposed resolution is to clarify that the duration protects any expected Ack (rather than possibly)  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8404. |
| 8453 | Wang, Xiaofei | 297.1 | The first and last sentence of the paragraph are on NDP paging. The remaining sentences are on implicit and explict TWT. It would be better to move the last sentence right after the first sentence; and breaks the remaining sentences into a new paragraph. | as in comment | Revised –  Agree with the comment. Proposed resolution incorporates the proposed changes.  TGah editor to make the changes shown in 11-15/0081r1 under all headings that include CID 8453. |

**9.3.2.4 Setting and resetting the NAV**

***TGah editor: Change the 2nd paragraph of the subclause as follows (#8385, 8016):***

In addition to the NAV update rules described in this subclause, an S1G STA shall also update its NAV to a new NAV value, if it receives information that the NAV is greater than the current NAV value. This information shall be received in the Duration field of the following frames: NDP CTS, NDP Ack, NDP\_2M PS-Poll-Ack, and S1G Beacon, except when the received frame is an:

—NDP CTS frame that is either addressed to the S1G STA as a response to an RTS frame, or that is an NDP CTS frame whose value of the Duration field can be disregarded as defined in 9.3.2.7 (CTS and DMG CTS procedure).

—NDP Ack frame that is either addressed to the S1G STA, or that has the Idle Indication field equal to 1 (see 9.3.2.9 (Ack procedure)).

—NDP\_2M PS-Poll-Ack frame that is either addressed to that S1G STA, or that has the Idle Indication field equal to 1 (see 9.3.2.9 (Ack procedure)).

—S1G Beacon frame that includes at least one TIM element in which there is an indication of available BUs for the receiving STA in at least one of the TIM elements.

—S1G Beacon frame that includes at least one TIM element and at least one RPS element that indicate:

•There is no indication of available BUs for the receiving STA in any of the TIM elements

•The receiving S1G STA is allowed to access the first RAW immediately following the S1G Bea­con frame as specified in at least one of the RPS elements.

**9.3.2.4a.1 General**

***TGah editor: Change the paragraph below as follows (#8022, 8392):***

The RID counter shall start at the end of the received S1G PPDU, except when the PPDU either contains a valid nonzero Duration field that updates the NAV, as described in 9.3.2.4 (Setting and resetting the NAV), or it is intended to the S1G STA. In both of these casesthe RID shall be reset.

***TGah editor: Change the paragraph below as follows (#8025, 8395):***

Figure 9-5a (Data/Ack with RID setting) indicates the RID for STAs that receive the PLCP Header of the Data frame whose MAC portion does not contain a valid Duration field that updates the NAV. The RID for STAs that receive the PLCP Header of the Ack frame but not that of the Data frame is 0 (i.e., no response is expected to the Ack frame in this example). The RID is reset for the STA to which the Data was addressed.

**9.3.2.13 NAV distribution**

***TGah editor: Change the paragraph below as follows (#8404):***

When the NDP CTS frame is a CTS-to-self, the value in the Duration field of the NDP CTS frame shall protect the pending transmission, plus any expected (NDP) Ack frame in response.

**9.44.1 TWT overview**

***TGah editor: Change the paragraph below as follows (#8453):***

If the NDP Paging field was not present in the TWT response corresponding to a TWT agreement, the TWT requesting STA shall be in the awake state following each TWT start time associated with each TWT agreement for at least the AdjustedMinimumTWTWakeDuration time associated with that TWT agreement even if no PS-Poll frame or U-APSD trigger frame has been transmitted by the STA. If the NDP Paging field was present in the TWT response, the TWT requesting STA shall follow the operational rules defined in 9.44.6 (NDP Paging Setup).

If the Implicit bit is equal to 1 in the TWT response for a TWT agreement, the TWT associated with that TWT agreement is an implicit TWT and the TWT SP associated with that TWT is an implicit TWT SP. A TWT SP that is not an implicit TWT is an explicit TWT SP.

# Pars IV

|  |  |  |  |  |  |
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| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 8149 | Stephens, Adrian | 322  .6 | "following the omniportion of the S1G\_LONG format" -- techies and secret societies love to create new terms, and hate to tell others what they mean. This is a new word, the term has not be defined, so you are following in these best traditions. Of course that doesn't help anybody who has not been through multiple years of 802.11ah understand what it is trying to say. | Given that the editor is undoubtedly paid by the word, I would encourage the word to be replaced by a self-defining phrase, such as "omnidirectional portion". Alternatively, create a definition for this term (not my preference).  Likewise "omnipreamble". | Revised –  Agree in principle with the comment. The proposed resolution is inline with CID 8179.  Replace “omniportion” with “omnidirectional portion”. Replace “omnipreamble” with “omnidirectional preamble”.  Replace “omnitransmission” with “omnidirectional transmission”.  Replace “omni beam” with omnidirectional beam”.  Replace “omni RTS” with “omnidirectional RTS”.  Replace “omni” with omnidirectional” when it is not part of the name of a frame, field, or element.  Replace “omni-directional” with “omnidirectional”. |
| 8330 | Rolfe, Benjamin | 421  .61 | "These tables" at the start of a new paragraph leaves context (slightly) unspecified. The reader is likely to guess that "these" re 24-38 through 24-57. Editorial convention in the base standard is to leave guessing to a minimum. | "Tables 24-38 through 24-57 give..." | Revised –  Agree with the comment. Proposed resolution is inline with the proposed change.  TGah editor: Replace “These tables give” with “Table 24-38 through Table 24-57 give”. |
| 8517 | Wang, Xiaofei | 426  .17 | N\_SS,u is the number os spatial streams for user u, but not space-time streams | Replace 'space-time streams' with 'spatial streams' | Accepted |

# Pars V

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 8533 | Wang, Xiaofei | 457  .26 | T\_LTF1 is used in the equation without definition | Add definition for T\_LTF1 | Rejected –  T\_LTF1 is already defined in Table 24-4. |
| 8329 | Rolfe, Benjamin | 461.  39 | 21.3.3.1 of the base standard states that "For all of the PHYs, all defined fields are transmitted bit 0 first in time." and so it is redundantly repeating normative information to repeat that "The bit 0 shall be transmitted first in time" as labeling it bit 0 is sufficient to specify it is transmitted first in time and saying it again and again is redundant. | Delete "The bit 0 shall be transmitted first in time" | Rejected –  Subclause 21.3.3.1 contains normative text for a DMG STA (i.e., operating in 60 GHz) as such does not apply to an S1G STA (i.e., operating in sub 1 GHz). |