IEEE P802.11  
Wireless LANs

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| Addressing Comment Resolutions | | | | |
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Abstract

These are proposed comment resolutions for Addressing related 802.11 GLK D1.0 comments.

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Ad-hoc Notes** |
| --- | --- | --- | --- | --- | --- |
| 206 | 6.07 | 4.3.23.1 | SYNRA is introduced to prevent bridge, and may have benefit of improving bandwidth usage in some cases | Change the wording to: "SYNRA is introduced to prevent bridge, and may have benefit of improving bandwidth usage in some cases" | Revise: "SYNRA is introduced to improve bandwidth usage in some cases of group-addressed frames to the GLK non-AP STAs" -> "SYNRA is introduced to improve bandwidth usage in cases of group-addressed frames when the 802.1Q bridge requires that they be forwarded to a subset of the GLK non-AP STAs" |
| 41 | 6.09 | 4.3.23.1 | "Thus SYNRA special Power Save handling need only consider the GLK AP case." - how can "a handling" consider anything? This is meaningless. | Strike quoted text. | Discuss: What was intended by the original text? Should text be replaced with other statement(s)? |
| 239 | 6.33 | 4.3.23.3 | "Reasons for such selective reception include the MAC service requirement that, when an MSDU is sent, it is not returned to and processed by the transmitting station."    It is not clear to me in what situation is assumed here. In the IEEE 802.11-2012 clause 9.3.6, the transmission procedure of group address frames is specified which is not consistent with the above text. | Please clarify what situation is assumed here. | Discuss: Propose rejection. Base spec has similar requirements, although I couldn't find the refernce. ***Anyone?*** We are not changing transmission requirements, rather receive filtering. It is not the intent of this spec to justify 802.1Q bridging requirements, but to support them. Reasons could also include multicast pruning, VLANs presence, and policy. |
| 258 | 6.33 | 4.3.23.3 | "Reasons for such selective reception include the MAC service requirement that, when an MSDU is sent, it is not returned to and processed by the transmitting station."    Its situation should be clarified. It is not clear if the transmission procedure of group address frames specified in the IEEE 802.11-2012 clause 9.3.6 is included in the above explanation. | Please explain clearly what situation is assumed here. | Reject: Dup CID239 |
| 295 | 8.19 | 4.3.23.4.3 | The subset of STAs to received a group addressed is not arbitrary, it's a specifc subset as defined in the SYNRA. | Change "an arbitrary" to "a specific". | Reject: "an arbitrary subset" is a mathematical statement. In that context the definition of arbitrary from the OED is " (Of a constant or other quantity) of unspecified value". The AP must be willing to accept an arbitrary subset of all associated STA as the receipients. It is not specified here, but in the MA-UNITDATA.request. ***Should we add a refernce?*** |
| 202 | 20.46 |  | How does the AP set up the AID bit maps in the SYNRA? For example, a multi-destination packet is for a subset of clients connected to the STAs that are associated with the AP. How does the AP know these clients are behind which STAs? | Clarify how the AP knows which STAs are supposed to receive the mulit-destination packet | Reject: That is the function of the 802.1Q bridge which will inform the MAC which STA need copies of an MSDU via the MA-UNITDATA.request. Selection between various encoding options is left to the implementation. |
| 244 | 38.08 | 8.3.2.1.2 | "NOTE--Because a SYNRA is not a valid DA, the use of the SYNRA as an RA is not ambiguous."    Since SYNRA has never discussed in this subclause before, the meaning of this note is not clear enough. | Please clarify. | Discuss: It is not clear to me either what was inteneded by the original text. |
| 112 | 38.21 | 8.3.2.1.2 | Requirements for DA or SA value for a frame sent by a GLK STA or non Data frame sent by a non-GLK STA is not clear. | Please clarify the requirements for DA or SA value for a frame sent by a GLK STA or non Data frame sent by a non-GLK STA. | Discuss: Propose rejection. Since this section is on Address fields in Data frames only, comment on non Data frames are not applicable. There is no restriction placed on GLK STA, as they may be bridging traffic for any DA/SA, and not just restricted to RA/TA. |
| 113 | 38.28 | 8.3.2.1.2 | "~ the RA may be a SYRA" is a normative text, which is not allowed in chapter 8. | Delete the text from "When a GLK AP data MPDU ~ the RA may be a SYNRA." | Dup: CID63 |
| 198 | 39.07 | 8.3.2.1.2 | It appears that SYNRA type behavior is defined for a reserved SYNRA type. This doesn't look right. | Change "for SYNRA types 2 and 3" to "for SYNRA type 2" | Revise: "2 and 3" -> "1 and 2". Turns out to be editorial. |
| 200 | 40.04 | 8.3.2.1.4 | Not exactly sure where the Extended AID list is included. | Specify where the AID is included in the frame more clearly. I couldn't find any reference to it. | Discuss: Agree this needs more clarification.  "present if the TA is a SYNRA" -> "present if the RA is a SYNRA"  Need to clearly call out correct order of fields in Frame body. Lets agree on order (Mesh Control Field, Security Header, Extened SYNRA cases, Either MSDU / MSDU fragment / AMSDU, Security trailer). If we agree, I can re-write paragraph(s) to list fields in order. |
| 219 | 40.26 | 8.3.2.1.4 | Many additions to the standard have increased the frame body, to diminishing returns with the advent of AMSDU. This requires supporting large frame buffers causing other impacts to the system. Increasing the frame body for SYNRA in particular does not provide practical usefulness from increasing the size, and might be rather large with variable extensions. | Recommend removal of this addition. | Discuss: Was my comment. I would accept, or Revise w/ Submission? |
| 67 | 41.11 | 8.3.2.2 | If SYNRA process is per MSDU, which I think it is, then the A-MSDU structure should include the Extended AID bit array etc... per MSDU in an A-MSDU. This should be described in 8.3.2.2 | Add the Extended AID array into the A-MSDU structure as appropriate. | Discuss: w/o that, AMSDU SYNRA are impractical to carry more than 1 MSDU, but such formatting is overly complex for Data Plane. Note: AMSDU are prohibitted in group addressed AMPDU, and many chipset vendors faught making it mandatory for the Unicast case, so making mandatory support is highly political. |
| 401 | 54.17 | 9.24.10.3 | "A-MSDUs with RA field set to the SYNRA": the RA field doesn't exist in the A-MSDUs. | Replace "A-MSDUs with RA field set to the SYNRA" with "A-MSDUs whose MPDU RA field values are the SYNRA". | Discuss: RA does not exist in AMSDU sub frames, but does exist in the AMSDU, unless we consider that to formally just be the MPDU payload. If we accept, we need to fix the base text too in REVmc or it will be making a distinction under the 2 cases that doesn't exist. |
| 224 | 54.23 | 9.42 | Needs clarification on format. | Any extension fields must be after the encryption headers, or this mechanism is insecure. We should also call out where the lost DA comes from, i.e., either A3 on 4addr frames, or basic AMSDU subframe headers. We should also re-iterate that a SYNRA is only valid as an RA, and not an SA/DA/TA. | Revise: Partially resolved by CID200. Recommend insertion of following text: "A SYNRA is only valid in Data frames, and can only be used as an RA (Address 1). It is not valid as an SA, DA, TA, or BSSID. When a SYNRA is used, either a 4 Address MPDU or an A-MSDU must be used to provide the missing DA. |
| 87 | 54.37 |  | "the SYNRA Control field consists of an E/I subfield, an AID offset subfield, and an AD bitmap subfield." -- figures are definitive. There is nothing to be gained from attempting to describe the format also in words. | Replace by "defined in figure 9-91". Move the figure to occur before the field descriptions. Make similar changes to the other SNRA Types. | Discuss: Sounded like direction has changed over time, and don't have the history |
| 257 | 54.41 | 9.42 | This sentence mixes requirements imposed on a GLK STA's behavior with fuzzy description of a condition. | Replace "If the bit in the E/I subfield is 1, the STAs not in the AID range covered by the AID bitmap shall pass the MPDU through the address 1 filter." with "If a GLK STA receives an MPDU in which the E/I subfield of the SYNRA field is 1 and the STA is not in the AID range covered by the AID bitmap the STA shall pass the MPDU through the address 1 filter." | Discuss: Propose Revise. There are 6 similar statements in this section, which should remain consistant unless we have a reason to make any different. Is the intention of the I/E bit to indicate if this is an inclusion vs exclusion list, or that the explicit list is always an inclusion list, and this indicates action for the AID ranges outside the bitmap? The later appears to be how the existing and offered replacement are worded, but can not be the interpretation for the AID list. Lets agree on intended function, and apply consistant wording in all 6 cases. |
| 106 | 55.05 | 9.42 | "The AID bitmap subfield is a bit array indicating which receivers in the bitmap are to accept or exclude the MPDU. B40 corresponds to the AID equal to the AID offset, the next bit B41 will correspond to the AID offset plus 1, and the remaining bits will correspond to the sequential AIDs, with B47 corresponding to the AID offset plus 7. The structure of SYNRA type 0 control subfield is shown in Figure 9-91 (SYNRA Control field for SYNRA Type 0)."  The behavior is not clear. I like to suggest the following changes even though I am not sure I correctly understand the proposed behaviors.    "If the first bit (B40) of the AID bitmap is equal to 1, the AID Offset (B27 - B39) plus 0 indicates the AID of the receiver to accept or exclude the MPDU. If the last bit (B47) of the AID bitmap is equal to 1, the AID Offset (B27 - B39) plus 7 indicates the AID of the receiver to accept or exclude the MPDU." | Replace "B40 corresponds to the AID equal to the AID offset, the next bit B41 will correspond to the AID offset plus 1, and the remaining bits will correspond to the sequential AIDs, with B47 corresponding to the AID offset plus 7." with  "If the first bit (B40) of the AID bitmap is equal to 1, the AID Offset (B27 - B39) plus 0 indicates the AID of the receiver to accept or exclude the MPDU. If the last bit (B47) of the AID bitmap is equal to 1, the AID Offset (B27 - B39) plus 7 indicates the AID of the receiver to accept or exclude the MPDU." | Revise: Not sure this is much clearer. We might rewrite to "B40 to B47 correspond to AID values of AID offset + 0 to AID offset + 7 respectively, where an AID value not covered by the bitmap are treated as 0." |
| 268 | 55.07 | 9.42 | Doesn't say whether bits corresponding to illegally high AID numbers are ignored or wrap around to AID 0. | Insert as the next to last sentence in the paragarph: "Bits corresponding to AID numbers larger than the maximum legal AID number are ignored." | Revise: "Bits corresponding to AID values out of range should be treated as reserved, and ignored." We might also consider adding clarification of AID offset to restrict values such that no bit in AID value correspond to an AID value out of range. We should update Type 1 & 2 accordingly. |
| 107 | 55.31 | 9.42 | What is an AID Vector? And, what is a format of the AID Vector?  I can not find any AID Vector information from Clause 8.3.2.1.4. | Please include the format of the AID Vector. | Revise: Problem looks to be inconsistant naming of a subfield through out the document. "The AID Vector is located in" -> "The AID Vector subfield is a variable length bit array indicating which receivers in the bitmap are to accept or exclude the MSDU. The subfield is located in" Also correct p40.04 "Extended AID bit array" -> "Extended AID Vector", and correct that naming in text + figures on p55-56. Also p39.06, so global search is warrented. |
| 269 | 55.34 | 9.42 | Doesn't say whether bits corresponding to illegally high AID numbers are ignored or wrap around to AID 0. | Insert as the next to last sentence in the paragarph: "Bits corresponding to AID numbers larger than the maximum legal AID number are ignored." | Revise: Repeat, as in CID268. |
| 108 | 56.17 | 9.42 | What is a format of the Extended SYNRA AID list?  What is an Extended SYNRA AID list? And, what is a format of the Extended SYNRA AID list?  I can not find any Extended SYNRA AID list information from Clause 8.3.2.1.4. | Please include the format of the Extended SYNRA AID list. | Revise: "Each pair of octets contains one AID" -> "Each pair of octets contains one AID, as described in 8.4.1.8" |
| 228 | 57.14 | 9.43 | Does not correctly represent when 4 Addr AMSDU are used. | Update lines 14-15, to add ", or BSSID for basic AMSDU". Also on line 17 correct as "The addressing of the 3 address frame containing an A-MSDU shall be as follows" | Accept |
| 110 | 57.18 | 9.43 | "Address 1 is the MAC address of the immediate destination STA (the receiver of the MPDU) or a SYNRA"  When the Address 1 is the SYNRA and the A-MSDU is present, the Ack Policy subfield in QoS Control field is No ACK or Block ACK?  Please specify the Ack Policy when the Address 1 is set to the SYNRA. | Please specify the Ack Policy when the Address 1 is set to the SYNRA. | Reject: No change to usage of Ack Policy by groupcast frames is being suggested in this section. Not clear why clarification is required/requested for AMSDU, but not 4Addr frames. *Maybe this is a GCR question?* |