IEEE P802.11
Wireless LANs

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| LB 205 Comment Resolution for Annex O.2 |
| Date: 2014-11-12 |
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Abstract

This document provides resolutions for CID 5018, 5019, 5020, 5021, 5022.

The changes are in the following clause: Annex O.2.

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# 0 Revision Notes

R0: First draft

| **CID** | **Commenter** | **Page.Line** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 5018 | Rojan Chitrakar | 577.60 | O.2 | Partial Virtual Bitmap example #6 is already used in REVmcD3.2 | Figure title as well as all references need to be updated as per REVmcD3.2. This applies to the rest of the S1G examples as well. | Revised- Agree in principle. TGah editor to make changes shown in 11-14/1556r0 under the heading for CID 5018. |
| 5019 | Rojan Chitrakar | 578.27 | O.2 | The partial virtual bitmap shown in the third example (Figure O-10) is wrong. I believe that in OLB mode all consecutive subblocks need to be included but the example only includes Subblock 0 (AID 1 & 6) and Subblock 2 (AID 21 & 23) and skips Subblock 1 (AID 8 - AID 15); also the length should be 3 and not 2. Based on the current example, how does the receiver figure out that the second Subblock represent Subblock 2 (AID 21 & 23)?Actually, this is not the best example to use for the OLB mode as Block Bitmap mode would be more efficient for this example. OLB would be more efficient than Block Bitmap mode only if the number of consecutive subblocks to be encoded is greater than 8. | Please check and correct accordingly. If possible, provide an alternate example that better illustrates the efficiency of OLB encoding scheme. 12/388r2 contains a good example of OLB. | Revised- Agree in principle. TGah editor to make changes shown in 11-14/1556r0 under the heading for CID 5019. |
| 5020 | Rojan Chitrakar | 579.31 | O.2 | The fifth example mentions that all the STA with the AID value "smaller than 24 except AID 1, AID 6, AID 21 and AID 23" have data buffered in the AP. Is this correct? My understanding of the Inverse Bitmap mode is that if the Inverse Bitmap subfield is set to 1, all the bits of the entire block (AIDs 0 - 63) is inverted and not just part of the block. Should the sentence then be "all STAs smaller than 64 except AID 1, AID 6, AID 21 and AID 23" instead? | Please check and correct accordingly. Also, the referenced figure should be Figure O-12 instead of Figure O-13. | Revised- Agree in principle. TGah editor to make changes shown in 11-14/1556r0 under the heading for CID 5020. |
| 5021 | Rojan Chitrakar | 580.28 | O.2 | The sixth example mentions that all the STA with the AID value "smaller than 32 except AID 31" have data buffered in the AP. Is this correct? My understanding of the Inverse Bitmap mode is that if the Inverse Bitmap subfield is set to 1, all the bits of the entire block (AIDs 0 - 63) is inverted and not just part of it. Should sentence then be "all STAs smaller than 64 except AID 31" instead? | Please check and correct accordingly.  | Revised- Agree in principle. TGah editor to make changes shown in 11-14/1556r0 under the heading for CID 5021. |
| 5022 | Rojan Chitrakar | 580.60 | O.2 | The seventh example has same problems as the third and the sixth. Length should be 3 and not 2, Subblock 1 (AID 8 - AID 15) is missing and the AIDs to be encoded should be "all STAs smaller than 64 except AID 1, AID 6, AID 21 and AID 23" | Please check and correct accordingly. | Revised- Agree in principle. TGah editor to make changes shown in 11-14/1556r0 under the heading for CID 5022. |

***Proposed changes:***

***CID 5018, 5019, 5020, 5021,5022***

**Note to Editor: All the changes are based on Tgah D3.0.**

**Instruction to Editor: *Please make the following changes for L28P577:***

The first example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses the encoding mode of Block Bitmap. The DTIM Count field in the TIM ele­ment equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM ele­ment is 0 and the Page Index field is 0. The STAs with AID 1, AID 6, AID 21 and AID 23 have data buffered in the AP. Figure O-8 (Partial Virtual Bitmap example #~~6~~7 for S1G STAs, Block Bitmap mode) shows the val­ues of the Bitmap Control and Partial Virtual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field is 0 and the Block Offset field is 0. The Encoded Infor­mation Block field in the Partial Virtual Bitmap field consists of Block Bitmap field with the value of 3 and two Subblock fields with the value of 66 and 160 respectively.

**Instruction to Editor: *Please make the following changes for L60P577:***

**Figure O-8—Partial Virtual Bitmap example #~~6~~7 for S1G STAs, Block Bitmap mode**

**Instruction to Editor: *Please make the following changes for L62P577:***

The second example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses Single AID mode. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. Only the STA with AID 31 has data buffered in the AP. Figure O-9 (Partial Virtual Bitmap example #~~7~~8 for S1G STAs, Single AID mode) shows the values of the Bitmap Control and Partial Virtual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field is 1 and the Block Offset field is 0. The Encoded Information Block field in the Partial Virtual Bitmap field consists of one Single AID field with the value of 31.

**Instruction to Editor: *Please make the following changes for L25P578:***

**Figure O-9—Partial Virtual Bitmap example #~~7~~8 for S1G STAs, Single AID mode**

**Instruction to Editor: *Please make the following changes for L27P578:***

The third example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses OLB mode. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. The STAs with AID 1, AID 6, AID 13, AID 15, AID ~~21~~17, ~~and~~ AID 2~~3~~2, AID 29, AID 31, AID 38, AID 43, AID 50, AID 52, AID 59, AID 64, AID 71, AID 73, AID 80 and AID 85 have data buffered in the AP. Figure O-10 (Partial Virtual Bitmap example #~~6~~9 for S1G STAs, OLB mode) shows the values of the Bitmap Control and Partial Virtual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field is 2 and the Block Offset field is 0. The Encoded Information Block field in the Par­tial Virtual Bitmap field consists of one Length field with the value of ~~2~~9 and ~~two~~nine Subblock fields with the value of 66, 160, 66, 160, 66, 160, 66, 160, and ~~160~~66 respectively.

**Instruction to Editor: *Please delete Figure O-10 and make the following changes for L59P578:***

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**Figure O-10—Partial Virtual Bitmap example #~~6~~9 for S1G STAs, OLB mode**

The fourth example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses ADE mode. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. The STAs with AID 1, AID 6, AID 21 and AID 23 have data buffered in the AP. Figure O-11 (Partial Virtual Bitmap example #~~6~~7 for S1G STAs, ADE mode) shows the values of the Bitmap Control and Partial Virtual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field value is 3 and the Block Offset field value is 0. The Encoded Information Block field in the Partial Virtual Bitmap field consists of only one ADE Block in which the EWL field is 4 and the Length field is 2. Four differential AID values (ΔAID), i.e., 1,5,15 and 2 are encoded in the Encoded Information Block that has zero padding bits.

**Instruction to Editor: *Please make the following changes for L29P579:***

**Figure O-11—Partial Virtual Bitmap example #~~6~~7 for S1G STAs, ADE mode**

**Instruction to Editor: *Please make the following changes for L31P579:***

The fifth example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses the encoding mode of Inverse Bitmap + Block Bitmap. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. All the STAs with the AID value smaller than ~~24~~64 except AID 1, AID 6, AID 21 and AID 23 have data buffered in the AP. Figure O-1~~3~~2 (Partial Virtual Bitmap example #~~8~~10 for S1G STAs, Inverse Bitmap + ~~Single AID~~Block Bitmap mode) shows the values of the Bitmap Control and Partial Virtual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field is 4 and the Block Offset field is 0. The Encoded Information Block field in the Partial Virtual Bitmap field consists of Block Bitmap field with the value of 3 and two Subblock fields with the value of 66 and 160 respectively.

**Instruction to Editor: *Please make the following changes for L24P580:***

**Figure O-12—Partial Virtual Bitmap example #~~8~~10 for S1G STAs, Inverse Bitmap + Block Bitmap mode**

**Instruction to Editor: *Please make the following changes for L28P580:***

The sixth example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses the encoding mode of Inverse Bitmap + Single AID. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. All the STAs with the AID value smaller than ~~32~~64 except AID 31 have data buffered in the AP. Figure O-13 (Partial Virtual Bitmap example #~~8~~11 for S1G STAs, Inverse Bitmap + Single AID mode) shows the values of the Bitmap Control and Partial Virtual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field is 5 and the Block Offset field is 0. The Encoded Information Block field in the Partial Virtual Bitmap field consists of one Single AID field with the value of 31.

**Instruction to Editor: *Please make the following changes for L56P580:***

**Figure O-13—Partial Virtual Bitmap example #~~8~~11 for S1G STAs, Inverse Bitmap + Single AID mode**

**Instruction to Editor: *Please make the following changes for L60P580:***

The seventh example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses the encoding mode of Inverse Bitmap + OLB. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. All the STAs with the AID value smaller than ~~24~~128 except AID 1, AID 6, AID 13, AID 15, AID ~~21~~17, ~~and~~ AID 2~~3~~2, AID 29, AID 31, AID 38, AID 43, AID 50, AID 52, AID 59, AID 64, AID 71, AID 73, AID 80 and AID 85 have data buffered in the AP. Figure O-14 (Partial Virtual Bitmap example #~~8~~12 for S1G STAs, Inverse Bitmap + OLB mode) shows the values of the Bitmap Control and Partial Vir­tual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field is 6 and the Block Offset field is 0. The Encoded Information Block field in the Partial Virtual Bitmap field consists of one Length field with the value of ~~2~~9 and ~~two~~nine Subblock fields with the value of 66, 160, 66, 160, 66, 160, 66, 160, and ~~160~~66 respectively.

**Instruction to Editor: *Please delete Figure O-14 and make the following changes for L11P581:***



**Figure O-14—Partial Virtual Bitmap example #~~8~~12 for S1G STAs, Inverse Bitmap + OLB mode**

**Instruction to Editor: *Please make the following changes for L31P581:***

The eighth example is one in which group addressed MSDUs are buffered in the AP as well as traffic for S1G STAs. The TIM element uses the encoding mode of Inverse Bitmap + ADE. The DTIM Count field in the TIM element equals 0. The Group Addressed Traffic Indicator field is 1, the Page Slice Number field in the TIM element is 0 and the Page Index field is 0. All the STAs with the AID value smaller than ~~24~~64 except AID 1, AID 6, AID 21 and AID 23 have data buffered in the AP. Figure O-15 (Partial Virtual Bitmap exam­ple #~~8~~10 for S1G STAs, Inverse Bitmap + ADE mode) shows the values of the Bitmap Control and Partial Vir­tual Bitmap fields. The Partial Virtual Bitmap field consists of only one Encoded Block in which the Block Control field value is 7 and the Block Offset field value is 0. The Encoded Information Block field in the Partial Virtual Bitmap field consists of only one ADE Block in which the EWL field is 4 and the Length field is 2. Four differential AID values (ΔAID), i.e., 1, 5, 15 and 2 are encoded in the Encoded Information Block that has zero padding bits.

**Instruction to Editor: *Please make the following changes for L65P581:***

**Figure O-15—Partial Virtual Bitmap example #~~8~~10 for S1G STAs, Inverse Bitmap + ADE mode**