IEEE P802.11
Wireless LANs

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| Clause 10.25.3.4.4 Comment Resolutions |
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Abstract

This document provides proposed comment resolutions for follow comments:

CID #, 1193, 1194, 1195, 1224, 1225, 1065, 1327, 1354, 1398, 1445, 1446, 1448, 1449, , 1537,

***Instruction to editor:*  Please make changes to section 10.25.3.4.4 as indicated below.**

**10.25.3.4.4 Bloom filter Hash function operation**

The Bloom filter for a set of service hashes is created as follows:

Let *m* denote the number of bits in the Bloom filter and let *k-1* be the setting of the Number of Hash Functions field in the Bloom filter information field (c.f. *8.4.2.171*), i.e., *k* is the number of Bloom filter hash functions, (out of a maximum of 16) used by the Bloom filter. For example, 0001 means the first 2 hash functions are used (j =0x00,0x01).

To create the Bloom filter:

 Start with setting all m bits in Bloom fiter to zero

 For each service hash in the set of service hashes: compute the *k* bit positions by setting *j* = 0,….k-1, in the function H(j,X,m) shown below. Set the bits at the *k* computed bit positions to 1. Note that in some cases, different values of *j* may return the same bit postion.

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Let H(*j*,X,*m*) denote the Bloom filter hash function,
where
 *j* is the Bloom filter hash function pre-pend parameter used in the computation. *j is a single octet and* ranges from 0x00 to 0x0F, in hexadecimal notation.
 X is the service hash that is mapped into the the Bloom Filter Bit Array field.

 The *H*(*j*,X,*m*) is computed as follows:
 Step 1: Compute A(*j*,X) = [*j* || X] , where || denotes an append operation
 Step 2: "Compute B(j,X) = CRC32(A(j,X)) & 0x0000FFFF. i .e., obtain the last 2 bytes of the 32 bit CRC of A(j,X) , where CRC32() is the same 32-bit CRC as defined in 8.2.4.8 (FCS field) and." Step 3: H(*j*,X,*m*) = B(*j*,X) mod *m*