IEEE P802.11  
Wireless LANs

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| Clause 8.4.2.172 Comment Resolutions 2 | | | | |
| Date: 2015-08-24 | | | | |
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| Name | Affiliation | Address | Phone | email |
| SK Yong | Apple Inc |  |  |  |
|  |  |  |  |  |

Abstract

This document provides proposed comment resolutions for follow comments:

CID #

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| **CID** | **Commenter** | **Clause Number(C)** | **Page (C)** | **Line (C)** | **Type of Comment** | **Assignee** | **Comment** | **Proposed Change** |
| 1343 | Lei Wang | 8.4.2.172 | 10 | 23 | T | SK Yong | What's the usage of the Advertisement ID? Searched the entire 11aq/D1.0 doc, did not find any descriptions about it, except for the line 23 on page 10. In addition, within one AP, do we really need a 4-byte Advertisement ID? | Please specify how the Advertisement ID is used. Also, please check if it really needs to be of 4 bytes long. |
| 1121 | Filip Mestanov | 8.4.2.172 | 10 | 10 | E | SK Yong | "The Service Advertisement element is included in the Probe Response returned by the AP in response to a Probe Request from a non-AP STA" | Change to "The Service Advertisement element is included in a Probe Response frame returned by the AP in response to a Probe Request frame from a non-AP STA" |
| 1122 | Filip Mestanov | 8.4.2.172 | 10 | 23 | T | SK Yong | Why is the "Advertisement ID" a 4 octed value? Do we need so many octets? | Reduce the size of the Advertisement ID to 2 octets. |
| 1265 | Stephen McCann | 8.4.2.172 | 10 | 23 | T | SK Yong | What is the "Advertisement ID" as it is not defined anywhere. It appears to be similar to a service name. | Create some text to define "Advertisment ID" |
| 1471 | Jing-Rong Hsieh | 8.4.2.172 | 10 | 23 | T | SK Yong | "The Advertisement ID field is a 4-octet unsigned integer assigned by the AP." 4-octet seems to be too many for the services advertised by the AP. | 2 octets for 65536 services should be enough. |
| 1560 | Xiaofei Wang | 8.4.2.172 | 10 | 23 | T | SK Yong | The Advertisement ID field usage is not described. Is it meant to be random or each value has certain meaning? | Please clarify the meanings of the values in the Advertisement ID field. |
| 1027 | MARC EMMELMANN | 8.4.2.172 | 10 | 9 | T | SK Yong | The description when to send a Service Advertisement element in a Probe Responses looks as if a Probe Response is sent for every Probe Request received and that contains a matching Service Hash. TGai is trying to reduce the number of probe responses is is likely to be used in conjuction with the features that TGaq introduces. Sending accumulated Probe Responses in case a requesting STA is a FILS-STA would result in better performance. | Change    "The Service Advertisement element is included in the Probe Response returned by the AP in response to a  10 Probe Request from a non-AP STA that has one or more matching Service Hashes."    to    The Service Advertisement element is included in a Probe Response returned by the AP in response to   Probe Requests from one or several non-AP STA that have one or more matching Service Hashes.    Note "the" --> "a" & plurals    Also, enhance TGai changes made to Cls. 10.1.4.3.5 to allow for "culmulative" Probe Responses containing culmulative information in one Service Advertisement element if the  requesting STAs are FILS-STAs. |
| 1268 | Stephen McCann | 8.4.2.172 | 10 | 27 | T | SK Yong | Why is the current status of the service useful? It's telling the STA that the network supports a service which is unavailable. As this is for network selection, I don't think this is necessary. | Remove or change the Service Status behaviour |
| 1438 | Yunsong Yang | 8.4.2.172 | 10 | 9 | T | SK Yong | This paragraph seems to describe procedural bahaviors and is not related to the element content or format. | Delete the first sentence (for duplication) and move the second sentence to the end of the second paragraph in 10.25.3.4.3 (Solicited PAD procedure). |
| 1583 | Joseph Levy | 8.4.2.172 | 10 | 9 | T | SK Yong | The sentences: "The Service Advertisement element is included in the Probe Response returned by the AP in response to a Probe Request from a non-AP STA that has one or more matching Service Hashes. For each matching Service Hash, the AP includes a corresponding Basic Service Information Descriptor." is confusing and not necessary to define the element. It is describing when the element is used and behavior should not be described in section 8. | Delete the sentences and move this information to section 10 if not already adequately captured there. |
| 1511 | Richard Roy | 8.4.2.172 | 10 | 19 | T | SK Yong | Service status is not a useful concept in the context of this standard. Either the service is available or it is not. Inclusion of the Service Hash in any information exchange means the service is available; a field repeating this obvious fact is not useful. This brings up the question of "when does a service cease to become available?" The document is silent on this point, and should not be. | Eliminate Service status from the document. Add necessary text describing how service become "unavailable". |
| 1512 | Richard Roy | 8.4.2.172 | 11 |  | E | SK Yong | Change: "The Service Hash Value is formed from the value of a service name by using the first 6 octets of the SHA-256 hashing algorithm of the service name value." | to: "The Service Hash Value is comprised of the first 6 octets of the SHA-256 hash of the service name value." |
| 1267 | Stephen McCann | 8.4.2.172 | 10 | 27 | T | SK Yong | Where is the current status of the service taken from. Is this in the STA, the proxy or the access network? | The current status of the service needs to be tied to a logical device. For example, a service may be availble within an access network, but is temporarily unavailable at an access point. |
| 1510 | Richard Roy | 8.4.2.172 | 10 | 9 | E | SK Yong | Change "The Service Advertisement element is included in the Probe Response returned by the AP in response to a Probe Request from a non-AP STA that has one or more matching Service Hashes. For each matching Service Hash, the AP includes a corresponding Basic Service Information Descriptor." | to: "A Service Advertisement element is included in Probe Responses returned by an AP in response to Probe Requests from non-AP STAs that have one or more matching Service Hashes. The AP scans the Service Hash list for user services it supports, and for each matching Service Hash, the AP includes a corresponding Basic Service Information Descriptor in a Service Advertisement element." |

Proposed resolution:

Replace Section 8.4.2.214, 8.4.2.2145, 8.4.2.216 (as in D1.3) with the following

#### 8.4.2.214 Service Advertisement element

The format of the Service Advertisement element is shown in Figure 8-577cm.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | | Length | Basic Service Information Descriptors |
| Octets | 1 | 1 | | Variable |

Figure 8-577cm – Service Advertisement element format

The Element ID and Length fields are defined in [8.4.2.1](#Section_8_4_2_1) (General).

The Basic Service Information Descriptors field contains one or more Basic Service Information Descriptor subfields. The format of the Basic Service Information Descriptor subfield is shown in Figure 8-577cn.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Service Name Length | Service Name | Instance Name length | Instance Names |
| Octets | 1 | variable | 1 | variable |

**Figure 8-577cn – Basic Service Information Descriptor subfield format**

The Service Name Length field contains the length of the Service Name field.

The Service Name field contains a UTF-8 encoded string with a maximum length of 21 octets. An example of Service Name for printing is “\_ipp.\_tcp”. It may be an official IANA registered name, as defined in RFC 6335, or a developer-specified name.

The Instance Name length fleld contains the length of the Instance Name field. The Instance Name is an instance of service associated with the Service Name. The Instance Name field contains a UTF-8 encoded string with a maximum length of 63 octets as defined in RFC 6763. An example of Instance Name is “John Home Printer”.

#### 8.4.2.215 Service Hash element

The Service Hash element consists of one or more Service Hashes. The format of the Service Hash element is shown in Figure 8-577co.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | | Length | Service Hash |
| Octets | 1 | 1 | | Multiple 6-octet service hash values |

Figure 8-577co – Service Hash element format

The Element ID and Length fields are defined in [8.4.2.1](#Section_8_4_2_1) (General).

The Service Hash field contains one or more 6-octet service hash values. (see 10.26.6 for procedures for generating a service hash used in the Service Hash element).

#### ~~8.4.2.216 Service Name element~~

~~The Service Name element consists of one or more Service Names. The format of the Service Name element is shown in Figure 8-577cp.~~

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | | Length | Service Name Descriptors |
| Octets | 1 | 1 | | Variable |

Figure 8-577cp – Service Advertisement element format

The Element ID and Length fields are defined in [8.4.2.1](#Section_8_4_2_1) (General).

The Service Name Descriptors field contains one or more Service Name Descriptor subfields. The format of the Service Name Descriptor subfield is shown in Figure 8-577cq.

|  |  |  |
| --- | --- | --- |
|  | Service Name Length | Service Name |
| Octets | 1 | variable |

The Service Name Length field and Service Name are defined in 8.4.2.214.

**10.26.6 Service hash procedures**

A service hash contained in the Service Hash field of the Service Hash element is generated as follows:

service hash = L(SHA-256(service name), 0, 48).