IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Resolution CID 10002 10039 10040 | | | | |
| Date: 2015-12-01 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Santosh Abraham | Qualcomm | 5775 Morehouse Dr.  San Diego, CA 92129 | +1-858 651 6107 | [sabraham@qti.qualcomm.com](mailto:sabraham@qti.qualcomm.com) |
| Abhishek Patil | Qualcomm | 5775 Morehouse Dr.  San Diego, CA 92129 | +1-858-845-4434 | [appatil@qti.qualcomm.com](mailto:appatil@qti.qualcomm.com) |
| Jouni Malinen | Qualcomm |  |  | jouni@qca.qualcomm.com |

Abstract

This submission addresses CIDs 10002. TGai had previously discussed number of related comments (e.g., CID 10039 and 10040) and approved 1244r3 as a resolution for them. However, as part of the discussion on that contribution, it was noted that the ANQP-element part should be addressed differently and as such, they were left for separate contribution. This is that contribution. CID 10002 is the only comment that is still open (others were resolved by 1244r3). The previously approved comments do not need to be updated, so only the CID 10002 comment is to be resolved as proposed in this contribution.

*Note: This document assumes changes proposed in 11-15/1244r3*

|  |  |  |  |
| --- | --- | --- | --- |
| CID | Comment | Proposed Change | Proposed Resolution |
| 10002 | What is the definition of the "IP Address Type"? Is this the same as the IP Address Data in 8.4.2.180.1? If not, it's not clear how the "IP Address Type " is used within the document and this needs to be defined. | Change "IP Address Type" to "IP Address Data" and add a forward reference to 8.4.2.180.1 (see below) | Revised: Adopt changes proposed in 11-15/1440r1 |
| 10039 | Get rid of the hash domain name stuff | Remove step 7 | NO CHANGES – ALREADY APPROVED |
| 10040 | These are not “Domain Identifiers”, they indicate supported “realms” for EAP-RP. | Reword the “Domain Identifier” portions of this section to indicate supported “realms” for EAP-RP. Don’t indicate “Hashed Domain Names”, indicate hashed realms. | NO CHANGES – ALREADY APPROVED (this contribution does additional changes for ANQP) |

***Instruct the editor to modify section 8.4.2.178 as indicated:***

**8.4.2.178 FILS Indication element**

***Modify Figure 8-577m as follows***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | B0 B2 | B3 B5 | B6 | B7 | B8 | B9-B15 |
|  | Number of  Public Key  Identifiers | Number of  ~~Domain~~ Realm Identifiers | FILS IP  Address  Configuration | Cache Supported | More Realms Field | Reserved |
| Bits | 3 | 3 | 1 | 1 | 1 | 7 |

**Figure 8-577m—** **FILS Information field definition**

***Add the following after line 59 on page 71 of 11ai Draft 6.0***

The More Realms Field when set indicates that information on more Realms can be obtained using ANQP.

***Modify 8.4.5.22 as follows***

8.4.5.22 FILS ~~Domain~~ Realm Information ANQP-element

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  | Info ID | Length | ~~Domain~~ Realm Identifer #1 | …. | ~~Domain~~ Realm Identifer #n |
| Octets | 2 | 2 | 2 |  | 2 |

Figure 8-607d—FILS Domain Information ANQP-element format

The FILS ~~Domain~~ Realm Information ANQP-element provides a list of realm identifiers ~~about the domains and the corresponding IP address types.~~The Info ID field and Length fields are defined in 8.4.4.1 (General).  
The ~~Domain~~ Realm Identifier field is defined in Figure 8-577n (Domain Identifier field).

**10.47.4 FILS authentication and higher layer setup capability indications**

*Modify the clause (after updates from 15/1244r3)* *as shown in the yellow highlight below (the changes that do not have yellow highlighting are from 1244r3 and have already been approved).*

A FILS AP shall include a FILS Indication element in Beacon and Probe Response frames, and may include a FILS Indication element in FILS Discovery frames. The FILS Indication element indicates properties of the FILS authentication protocol used, whether the AP performs IP address assignment~~, and the IP address type.~~  The FILS indication element also indicates if realm information may be obtained using ANQP.

An AP can indicate up to 7 realms that indicate the domain name of the server that the AP is capable of participating in an EAP-RP exchange with (see RFC 6696). . When more than 7 realms are available, the FILS Realm Information ANQP-element (8.4.5.22) can be requested to get the full list of realm hash values. The realm of an EAP-RP server is the realm portion of the keyName-NAIas defined in IETF RFC 6696. For each of the realms, the FILS Indication element carries a 2-octet hash of the network realm~~and the IP address type of the corresponding domain.~~ The hash of the realm (IETF RFC 1035 compliant) is computed as follows:

NOTE— Internationalized domain names are first converted to an IETF RFC 1035 compliant ASCII form using the

operations defined in IETF RFC 3490.