IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Adding GAS Extensions to MLME-GAS.confirm | | | | |
| Date: 2016-08-18 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Michael Montemurro | BlackBerry | 4701 Tahoe Blvd, Mississauga, ON. Canada L4W0B4 | +1 289-261-4183 | [mmontemurro@blackberry.com](mailto:mfischer@broadcom.com) |
|  |  |  |  |  |

Abstract

This document addresses CID 9002 on P802.11aq D10.0, which identifies that GAS Extensions are required so that a STA that receives an GAS Initial Response frame can determine whether the transmitter supports GAS Extensions. This enables the receiving STA to request a specific fragment of the GAS response, if required.

**6.3.73 Network discovery and selection support**

**6.3.73.2 MLME-GAS.request**

**6.3.73.2.2 Semantics of the service primitive**

***In the table entry for GASExtension, change the first sentence of the Description from***

***“***Specifies the GAS extension for a transmitting STA that supports group address GAS frames.”

***to***

***“***Specifies GAS extensions information in the GAS frame to be transmitted.”

***Replace the sub-clause with the following:***

**6.3.73.3 MLME-GAS.confirm**

***Update the primitive parameter definition and table in 6.3.73.3.2 as follows:***

**6.3.73.3.2 Semantics of the service primitive**

The primitive parameters are as follows:

MLME-GAS.confirm(

PeerSTAAddress,

DialogToken,

ResultCode,

ResponseInfo,

Protected,

Multi-band,

GASExtension,

VendorSpecificInfo

)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| PeerSTAAddress | Mac Address | Any valid individual MacAddress | Specifies the address of the peer MAC entity from~~to~~ which Q~~q~~uery Response is received ~~transmitted~~. |
| DialogToken | Integer | 0–255 | The dialog token to identify the GAS transaction. |
| ResultCode | Enumeration | SUCCESS, NO\_OUTSTANDING\_GAS\_REQUEST, GAS\_ADVERTISEMENT\_PROTOCOL\_ NOT\_SUPPORTED, GAS\_QUERY\_RESPONSE\_ OUTSTANDING, GAS\_QUERY\_RESPONSE\_TOO\_LARGE  , SERVER\_UNREACHABLE, GAS\_QUERY\_TIMEOUT,  GAS\_RESPONSE\_NOT\_RECEIVED\_ FROM\_SERVER, SUCCESS\_CAG\_VERSIONS\_MATCH | Indicates the result response to the GAS request from the peer MAC entity. |
| ResponseInfo | String | N/A | Query Response string formatted using protocol identified in AdvertisementProtocolID. E.g., if the AdvertisementProtocolID value is 1, then Query is formatted as defined in IEEE Std 802.21-2008. |
| Protected | Boolean | true, false | Specifies whether the response was received in a robust Management frame.  If true, the response was received using a Protected Dual of Public Action frame. Otherwise, the response was received using a Public Action frame. |
| Multi-band | Multi-band element | As defined in 9.4.2.138 | Specifies the frequency band and channel number to which the GAS transaction applies. The parameter is absent if the GAS transaction applies to the same frequency band and channel where the frame is transmitted. |
| GASExtension | GAS Extension element | As defined in 9.4.2.219 | Specifies GAS extensions information in the GAS frame received. The values from the GAS Extension element in the GAS response received, if present, else null. |
| VendorSpecificInfo | A set of elements | As defined in 9.4.2.26 | Zero or more elements. |

***Change 6.3.73.3.3 as follows:***

**6.3.73.3.3 When generated**

This primitive is generated by the MLME as a response to the MLME-GAS.request primitive indicating the result of that request.

The primitive is generated when the requesting STA receives a query response in a (Protected) GAS Initial Response frame or one or more (Protected) GAS Comeback Response frames or a Group Addressed GAS Response frame.

***Change 6.3.73.3.4 as follows:***

**6.3.73.3.4 Effect of receipt**

The STA operates according to the procedures defined in 11.25.3 and 11.25a.

**6.3.73.4 MLME-GAS.indication**

**6.3.73.4.2 Semantics of the service primitive**

***In the table entry for GASExtension, change the first sentence of the Description from***

***“***Specifies the GAS extension for a transmitting STA that supports group address GAS frames.”

***to***

***“***Specifies GAS extensions information in the GAS frame received.”

**6.3.73.5 MLME-GAS.response**

**6.3.73.5.2 Semantics of the service primitive**

***In the table entry for GASExtension, change the first sentence of the Description from***

***“***Specifies the GAS extensions for one or more receiving STAs that support group address GAS frames. The parameter is present if GAMode is true, else null.”

***to***

***“***Specifies GAS extensions information in the GAS frame to be transmitted. The parameter is present if GAMode is true, or if the STA is capable of retransmitting a GAS Query Response fragment upon request and the query response’s length is larger than the maximum MMPDU size, else the parameter is null.”