IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Normative text for GAS configuration sequence number | | | | |
| Date: 2012-09-05 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Phillip Barber | BMT |  |  |  |
| George Calcev | Huawei  Technologies Co. Ltd. |  |  | George.Calcev@huawei.com |
| Eric Zhang | Huawei  Technologies Co. Ltd. |  |  |  |

Abstract

The submission provides normative text for GAS configuration sequence number as identified in subclause 6.3.3 of the SFD ([11-12-0151-12-00ai-proposed-specification-framework-for-tgai](https://mentor.ieee.org/802.11/dcn/12/11-12-0151-12-00ai-proposed-specification-framework-for-tgai.docx)) as:

*6.3.3 Configuration Change Element (11-12/0158r3)*

*AP may include a GAS configuration-change element in the Beacon and Probe Response to indicate changes in a set of static GAS parameters.*

**6.3.3.3.2 Semantics of the service primitive**

*Instructions to Editor: Append the following field to the BSSDescriptionSet parameter of the MLME-SCAN.confirm primitive as follows:*

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Type** | **Valid range** | **Description** |
| GAS configuration sequence number | Integer | N/A | The GAS configuration sequence number of the found BSS. |

**8.3.3.2 Beacon frame format**

*Instructions to Editor: Add new element to Table 8-20 as shown with track changes; editor to insert the appropriate value for* nn*TGai in the table for the new element*

The frame body of a management frame of subtype Beacon contains the information shown in Table 8-20.

**Table 8-20—Beacon frame body**

|  |  |  |
| --- | --- | --- |
| Order | Information | Notes |
| *nn*TGai | GAS configuration sequence number | The GAS configuration sequence number is present if dot11FILSActiveated is true |
| Last | Vendor Specific | One or more vendor-specific (#1684)elements are optionally present(#29). These (#1684)elements follow all other (#1684)elements(#1221). |

* + - 1. **Probe Response frame format**

*Instructions to Editor: Add new element to Table 8-27 as shown with track changes; editor to insert the appropriate value for* nn*TGai in the table for the new element.*

The frame body of a management frame of subtype Probe Response contains the information shown in Table 8-27. See additional details and procedures in 9.18.3 and 10.1.4, respectively.

**Table 8-27—Probe Response frame body**

|  |  |  |
| --- | --- | --- |
| Order | **Information** | **Notes** |
| *nn*TGai | GAS configuration sequence number | The GAS configuration sequence number is present if dot11FILSActivated is true |
| Last*–1* | Vendor Specific | One or more vendor-specific (#1684)elements are optionally present(#29). These (#1684)elements follow all other (#1684)elements(#1221), except the Requested (#1684)elements. |
| Last–*n* | Requested (#1684)elements | Elements requested by the Request (#1684)element of the Probe Request frame are present(#29) if dot11MultiDomainCapabilityActivated(#1005) is true. See 11.1.3.2.1 (Sending a probe response).(11k) |

**8.4.2.ai4 GAS configuration sequence number element**

*Instructions to Editor: Add new element type to the element type list.*

|  |  |  |
| --- | --- | --- |
| Element Id | Length | GAS configuration sequence number |
| Octets: 1 | 1 | 1 |

**Figure 8-ai7 —GAS configuration sequence number element**

The Element Id is equal to the GAS configuration sequence number element value in Table 8-ai7.

The value of the Length field is a 1-octet field whose value is set to 1.

The GAS configuration sequence number field contains an unsigned integer. It indicates the version number of AP’s GAS configuration information set[[1]](#footnote-1). The AP’s GAS configuration information set refers to part or whole network services' information over the IEEE 802.11 network, which can be acquired by GAS query.

The reporting STA shall monotonically increment the value of the GAS configuration sequence number field whenever there is a change to any information element or subelement encoded as part of reporting STA’s GAS configuration information as provided by the protocols in Table 8-175, excep

**Motion-1:** To authorize the Editor to incorporate the text changes proposed in contribution *11-12-1046-00-00ai-GAS-configuration-sequence-number* to the draft TGai Specification Document.

Yes: \_\_\_\_\_\_\_\_\_\_\_\_;  No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;  Abstain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[Result of Motion]

t a change to any dynamic operational reporting metric that may be incorporated as part of any value. The identification of dynamic operational reporting metrics for this purpose is implementation specific.

**10.1.4.3.7 Sending a response to probe request**

*Instructions to Editor: Add the new Clause 10.1.4.3.7*

If dot11FILSActivated is true and dot11InterworkingServiceActivated is true, the STA shall include in the Probe Response frame a GAS configuration sequence number element containing the current sequence number of the AP’s GAS configuration information. The current AP’s GAS configuration information can be acquired by GAS query mechanism as described in 10.24.3.

**10.24.3 Interworking procedures: generic advertisement service (GAS)**

*Instructions to Editor: Append the Clause 10.24.3 with the following text:*

STAs shall not transmit a GAS Query for any Advertisement Protocol unless that Advertisement Protocol ID is included in the Advertisement Protocol element in a Beacon or Probe response frame. The Advertisement Protocol element specifies the Advertisement Protocols that a STA may use to communicate with Advertisement Servers, which may be collocated with a STA or in an external network. The Advertisement Protocol identifies the query language used by the Advertisement Server. The GAS protocol, which is used to transport Queries and Query Responses, is transparent to the Advertisement Protocol.

If a STA acquires a GAS configuration sequence number from a current beacon or probe response, and if the STA retains GAS information previously acquired from a STA through a previous association attempt GAS message exchange including GAS configuration information and GAS configuration sequence number, and if the GAS configuration sequence number transmitted in the current beacon or probe response equals the value stored by the STA from the previous association attempt, then the STA attempting association shall not initiate a GAS query request to the discovered STA and instead shall use the previously acquired GAS information values as current values.

1. [↑](#footnote-ref-1)