IEEE P802.11  
Wireless LANs

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| GAS Version Control including Normative Text | | | | |
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Abstract

This document provides normative text for a technical proposal for TGai. In this proposal an optional method for GAS version control is provided to reduce FILS processing time by potentially eliminating unproductive/redundant GAS/ANQP Request/Response events.

**Problem:**

As previously discussed in [IEEE 11-11-1498-01-00ai](https://mentor.ieee.org/802.11/dcn/11/11-11-1498-01-00ai-gas-version-control.pptx), GAS/ANQP configuration information sets on both AP and AS will rarely change.

In many use case scenarios it is common for STA to frequent the same AP or set of AP, based on recurring geographic travel pattern.

Lacking determistic, a priori method to determine if the GAS/ANQP response information set may have changed, the STA that returns to the same AP at a later time may conduct a fresh GAS/ANQP Query event.

It is likely that the AP will return exactly the same response to a GAS/ANQP Query as during a previous event. This outcome should be common and results in unecessary, redundant GAS/ANQP exchange events.

For GAS/ANQP configuration information that is locally stored at the AP or for which the AP otherwise has knowledge of change events to the information set, the AP has timely knowledge of changes to the configuration information set.

**Remedy:**

Provide an optional version control method to present a GAS/ANQP information set change indicator sufficiently instructive to reduce or eliminate unproductive and redundant GAS/ANQP Query/Response exchanges, thus reducing processing time during recurring FILS event.

Beacon or Probe response may carry this information set change idicator IE.

Adopt the proposed text as:

**8.4 Management frame body components**

**8.4.2 Information elements**

*[Editor to insert an entry row in Table 8-54—Element IDs for the new 8.4.2.ai1 GAS/ANQP Configuration Set Identifier and Change Counter]*

**8.4.2.ai1 GAS/ANQP Configuration Set Identifier and Change Counter element**

*[Add subclause 8.4.2.ai1 as:]*

The GAS/ANQP Configuration Set Identifier and Change Counter both identifies an implementation specific set of GAS/ANQP information elements as a named grouping and provides a monotonically increasing change indicator for the identified grouping. See Figure 8-ai2.



**Figure 8-ai2—Configuration Set Identifier and Change Counter format**

The Length field for this element indicates the length of the variable length Configuration Set Identifier field plus the fixed length Change counter field, which is constrained as described below.

The length of the Configuration Set Identifier field is between 0 and 32 octets. Configuration Set Identifier field is encoded as a UTF-8 value.

Change Counter is encoded as a monotonically incrementing numeric value of value 0-255.

**References:**

[P802.11REVmb/D12.0](http://www.ieee802.org/11/private/Draft_Standards/11mb/Draft%20P802.11REVmb_D12.0.pdf)