IEEE P802.11
Wireless LANs

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| Dwell Time In Probe Request Text |
| Date: 2016-01-18 |
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Abstract

This document proposes the addition of a new information element called dwell time to the probe request frame. This information element indicates to the receiving AP the length of time that the client may remain listening for probe responses, MaxChannelTime.

This document uses 802.11-REVmc/D5.0, Jan 2016 as a baseline.

***Modify the table in the following clause:***

* + - 1. Probe Request frame format

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| --- |
| Table 9-33 Probe Request frame body |
| Order | Information | Notes |
| 1 | SSID | If dot11MeshActivated is true, the SSID element is the wildcard value as described in 8.4.2.2. |
| … | ... | … |
| 19 | Extended Request | The Extended Request element is optionally present if dot11RadioMeasurementActivated is true. |
| **20** | **Dwell Time** |  |
| Last | Vendor Specific | One or more vendor-specific elements are optionally present. These elements follow all other elements. |

***Modify the table in the following clause:***

**9.4.2 Elements**

**9.4.2.1 General**

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| --- |
| Table 9-76 Element IDs |
| Element | Element ID | Element ID Extension | Extensible |
| SSID (see 9.4.2.2 (SSID element)) | 0 | N/A |  |
| … | ... |  | … |
| Fine Timing Measurement Parameters (see 9.4.2.167 (Fine Timing Measurement Parameters element)) | 206 | N/A | Yes |
| UPSIM (see 9.4.2.174 (UPSIM element)) | **<ANA>** | N/A | Yes |
| **Dwell Time** | **207** | **N/A** |  |
| Reserved | **208-220** |  |  |
| Vendor Specific (see 9.4.2.26 (Vendor Specific element)) | 221 | N/A |  |
| … | … | … | … |

***Add the following new subclause***

**9.4.2 Elements**

**9.4.2.175 Dwell Time element**

The Dwell Time element is used in the Probe Request frame. It indicates a tight upper bound on the length of time that the client will be on channel listening for a Probe Response. The MaxChannelTime indicates the length of time that a client may be listening for a Probe Response.

This channel time is conceptually the same channel time used in sections 6.3.3.2 and 11.1.4.3.2.

This time is specified through an 8 bit unsigned integer with the values 0 and 255 are reserved. The dwell time steps evenly from 500s to 127ms. Specifically

$$MaxChannelTime uint=\left⌈\frac{min\left(MaxChannelTime in μs,127μs\right)}{500μs}\right⌉$$

|  |  |  |  |
| --- | --- | --- | --- |
|  | Element ID | Length | MaxChannelTime |
| Octets: | 1 | 1 | 1 |
|  |

***Modify the following step in the following subclause***

**11.1.4.3.2 Active scanning procedure for a non-DMG STA**

c) Send a probe request to the broadcast destination address. The probe request is sent with the SSID and BSSID from the received MLME-SCAN.request primitive. Optionally include MaxChannelTime in the dwell time information element contained in the Probe Request.

***Add the following element to the list in the following subclause***

**11.1.4.3.4 Criteria for sending a probe response**

l) If the probe request contained the IE MaxChannelTime, then the time elapsed between the receipt of the probe request and the current is greater than the duration conveyed in the dwell time information element.