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 will definitely remain listening for probe responses, MinChannelTime and 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

|  |
| --- |
| 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 bounds on the length of time that the client will be on channel listening for a Probe Response. The MinChannelTime element indicates the length of time that a client guarantees that it will be listening for a Probe Response. The MaxChannelTime indicates the length of time that a client may be listening for a Probe Response.

These channel times are conceptually the same channel times used in sections 6.3.3.2 and 11.1.4.3.2.

Both times are specified through a 16 bit unsigned integer. Specifically

$$MinChannelTime uint=min\left(\left⌈\frac{MinChannelTime in μs}{100μs}\right⌉,65535\right)$$

$$MaxChannelTime uint=min\left(\left⌈\frac{MaxChannelTime in μs}{100μs}\right⌉,65535\right)$$

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | Length | MinChannelTime | MaxChannelTime |
| Octets: | 1 | 1 | 2 | 2 |
|  | **Figure 8-402 Dwell Time element format** |

***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 MinChannelTime and MaxChannelTime in the information elements contained in the Probe Request.