IEEE P802.11
Wireless LANs

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| Liaison response to WBA Latitude/Longitude Values |
| Date: 2014-07-17 |
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Abstract

Reply to the liaison from Wireless Broadband Alliance regarding latitude and longitude values. Also see 11-14-0706r1.

To: WBA c/o tiago@wballiance.com

Subject: WBA Latitude and Longitude values

Date: 2014-07-16

Dear Tiago,

 I would like to thank the Wireless Broadband Alliance (WBA) for their liaison letter that IEEE 802.11 received on 16th May 2014, regarding latitude and longitude values (11-14-0706r1).

With regard to the specific IEEE 802.11 fields mentioned in your liaison letter (“…the 9-bit integer portion, and the 25-bit fractional portion…”), it should be noted that the IEEE 802.11 MIB and over-the-air tranmissions are both little-endian. Therefore IEEE 802.11 MIB entries should be accessed little-endian. When this is taken into account, using a conversion from the IETF RFC format (big-endian) to the IEEE 802.11 format (little-endian), issues about the IEEE 802.11 sign-extensions disappear.

Within the curently published IEEE 802.11-2012, an example of the Latitude/Longitude format using an example from RFC 3825 is shown. However, recent work within IEEE 802.11 has now changed this example, as was decided to merge and align the Latitude/Longitude report format with that defined by the more recent RFC 6225.

*Unfortuantely, the draft version of IEEE 802.11 with this change is not available. Page 781-782 of REVmc D3.0 contains an example on how to encode a location coordinates using the encoding defined in RFC6225. <****can we cut and paste the worked example into this document, as an annex below???****>*

In additition, it should be noted that RFC 5580 specifies how RADIUS only carries the absolute location, ignoring the resolution/uncertainty of the location.

I look forward to continued co-operation with the WBA on this issue.

Sincerely,

Adrian Stephens
IEEE 802.11 Working Group Chair