IEEE P802.11
Wireless LANs

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| Resolutions for location CIDs |
| Date: 2014-07-16 |
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Abstract

This document provides resolution to CIDs 3105, 3401 and 3071.

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CID#3105

Problem suggested resolution

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| The dot11\*Integer and dot11\*Fraction variables do not map onto the various location structures, given that the integer and fraction parts of Latitude and Longitude have been merged in the OTA structures. | Delete the dot11\*Fraction variables.Change the dot11\*Integer variables by:1. removing "Integer", 2. Adjusting range to map structure3. Change the declared type from Integer32 if the range exceeds 32 bits.Also check that the range and type of the dot11\*Altitude variables maps onto the OTA structures. |

Proposed resolution: Revise

**TGmc Editor: Implement the below changes:**

1. Delete the dot11\*Fraction variables.
2. Change the dot11\*Integer variables by removing "Integer"
3. Change the modified MIB variable declarations to:
* dot11LCI\*Longitude OBJECT-TYPE
SYNTAX Integer64 (-180\*33554432..180\*33554432)
* dot11LCI\*Latitude OBJECT-TYPE
SYNTAX Integer64 (-90\*33554432..90\*33554432)
1. Declared type to be changed from Integer32 to Integer64 for the dot11LCI\*Longitude and dot11LCI\*Latitude variables.
2. Delete ""This field contains the 9 bits of integer portion of \*"" from the description of the above modified MIB variables.
3. Add to the description of the above MIB variables: “The value of the MIB variable is indicated in units of degrees/33554432.”

**TGmc Editor: Implement the below change to Annex C.3 MIB Detail:**

IMPORTS
MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE,

Integer32, Integer64, Counter32, Counter64, Unsigned32, TimeTicks, Gauge32

FROM SNMPv2-SMI

Note to editor: The OTA structure of altitude is 30 bits which maps well into the current dot11\*Altitude MIB variable, no changes required in that respect.

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CID#3401

 Problem

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| There are various location thingies, and they are all extremely similar but slightly different (e.g. Device Location Information Body field has int/frac while LCI field and DSE registered location element body fields has just a number) | Commonalise all the various location thingies |

Discussion: commenter must have looked at a previous version of the REVmc draft. Most differences enumerated by the commenter are not valid. The only discrepancy between the location structures is that the field called ‘Version’ in the location structures is called ‘ver’ in figure 8-118.

Suggested Resolution: revised, with resolution:

Change 'ver' to 'Version' in Figure 8-118.

CID#3071

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| We have a number of apparently very similar structures, intended to reflect a "location". Is this duplication necessary? They are maintained by different people at different times, which may lead to confusing, but unnecessary differences. | Consider defining a core structure that reflects the RFC 6225 location fields that are common to all 802.11 location structures, and then embed this in other structures to add the additional fields needed by 802.11 (such as RegLoc\* fields). |

Discussion:

There are 3 Location Structures in 802.11REVmc3.1

* 1. Device Location Information element (8.4.2.167, figure 8-568 and 8-118)
	2. Location Configuration Information report (8.4.2.21.10, figure 8-209 and 8-211)
	3. DSE Registered Location element (8.4.2.51, figure 8-318 and 8-319)

The location related fields in a) and b) are same, while c) is a superset of a) and b).

Opinion: the above structures in the spec may be redundant, but at least they are not contradictory. The only difference between them is resolved by CID#3401 above.

Proposed resolution: reject, the commenter did not provide enough details on how should the location structures be merged.