[Draft 1: output of 802.1 DCB task group review of Roger Marks and Bob Grow’s drafts, 14:23 8 Nov 2017]

Modified by 802.11 WG, to be 11-17/1797r1.

To: WBA Testing & Interoperability Workgroup

From: IEEE 802

CC: IEEE RAC

Re: Liaison Statement of 31 October 2017 on IEEE Roaming OUI

IEEE 802 is pleased to have received your liaison on 31 October 2017, learning of your activities and your interest in using an IEEE identifier as a Roaming Consortium OI (RCOI). It is our understanding that “OI” in this context represents “organization identifier.”

We appreciate your reference to IEEE Std 802c, which is of some relevance to the issues at hand. Our response is based particularly on the document *Guidelines for Use of Extended Unique Identifier (EUI), Organizationally Unique Identifier (OUI), and Company ID (CID),* <http://standards.ieee.org/develop/regauth/tut/eui.pdf>, which is the 2017 version of the relevant tutorial information provided by the IEEE Registration Authority (RA). The IEEE RA is responsible for assigning such identifiers. While the IEEE RA is the ultimate authority regarding its registration policies, we are happy to provide our views for your assistance.

In particular, following are our responses to your questions:

*1. If an organization wants to obtain an identifier for RCOI purposes only (not for MAC addresses), what type of identifier is recommended (MA-L, MA-S, CID)?*

As identified in the tutorial, the Company ID (CID) assignment by the IEEE RA is a single unique 24-bit identifier usable to identify a company, organization etc. The CID is recommended for RCOI purposes when the organization doesn’t need any global MAC addresses.

*2. If an organization has already been allocated an MA-L/S range, can they assign RCOI values within that range?*

Yes.

If the organization already has an OUI, it may use that OUI for a 3-octet RCOI or, as covered below, may extend that OUI to make multiple longer RCOIs.

If the organization already has an OUI-36 it may use that OUI for a 36-bit RCOI or, as covered below, may extend that OUI-36 to make multiple longer RCOIs.

An MA-L/S range is a range of EUIs (global MAC addresses). Therefore describing assigning an RCOI value within a range may be confusing.

Quoting from the tutorial, “Two types of identifier– the 24-bit Organizationally Unique Identifier (OUI) and the 24-bit Company ID (CID)– are related to each other in that they come from the same 24-bit space but fall in different subspaces…”  Therefore OUI values and CID values do not overlap.

*3. Are there guidelines/recommendations for extending both MA-L and CID to a 36-bit RCOI? Or any of the identifiers to a full 5-octet (40-bit) RCOI?*

It is our understanding that such extensions are supported with minimal restrictions, noting that it is the responsibility of the extending party to ensure uniqueness of extended identifiers since IEEE has no role in the assignment of the extended bits. Regarding the MA-L, the tutorial states that “The assignee of an OUI may create an OUI-36 by adding 12 bits to the end of the assigned OUI.” More generally, the tutorial states that “an OUI, OUI-36, or CID may also be used as the basis of extended identifiers, including protocol identifiers and context dependent identifiers, by concatenating additional differentiating bits.”

The tutorial was circulated for comment along with the Sponsor ballot of IEEE Std 802c-2017 to ensure consistency. We are confident that you can rely on the tutorial accuracy. IEEE 802c-2017 has been published and will become freely available on IEEE Get 802® Standards by the end of February 2018. <http://ieeexplore.ieee.org/browse/standards/get-program/page/series?id=68>

The IEEE 802.11 Working Group notes that the description of the Organization Identifier field, and its use within the Roaming Consortium ANQP-element and the Roaming Consortium element could be clarified with regard to the questions asked by the Wireless Broadband Alliance, and that is under consideration.

We will request the IEEE to make IEEE Std 802c-2017 available to the WBA for the purpose of developing your specification.