|  |  |
| --- | --- |
| Project | **IEEE 802.21m Media Independent Services** **<**[**http://www.ieee802.org/21/**](http://www.ieee802.org/21/)**>** |
| Title | **Proposed remedy for Cmt i-3 and Cmt i-5 in P802.21m SB** |
| DCN | **21-16-0104-00-REVP** |
| Date Submitted | **September 13, 2016** |
| Source(s) | Yoshikazu Hanatani (Toshiba) |
| Re: | Session #76, Warsaw, Poland |
| Abstract |  802.21 supports organizationally unique identifier (OUI) which is assigned by IEEE-RA. “company identifier (CID)” is useful for a vendor who do not need an OUI to generate MAC addresses. But, CID is not allowed in the latest 802.21m draft.To support CID, Table 10 and Figure 39 in IEEE P802.21m/D04 is modified. |
| Purpose | Proposed remedy for Cmt i-3 and Cmt i-5 in P802.21m SB. |
| Notice | This document has been prepared to assist the IEEE 802.21 Working Group. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
| Release | The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE’s name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE’s sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that IEEE 802.21 may make this contribution public. |
| Patent Policy | The contributor is familiar with IEEE patent policy, as stated in [Section 6 of the IEEE-SA Standards Board bylaws](http://standards.ieee.org/guides/opman/sect6.html#6.3) <[http://standards.ieee.org/guides/bylaws/sect6-7.html#6](http://127.0.0.1:4664/cache?event_id=757737&schema_id=1&s=5X0vID10lu_E6yrIkWkNd4Wz2H8&q=hancock)> and in *Understanding Patent Issues During IEEE Standards Development* <http://standards.ieee.org/board/pat/faq.pdf> |

**Comment: i-3**

Vendor specific IEs should allow an OUI or a CID (Company ID). This also applies to Vendor Specific TLVs. in 8.5.

Vendors who don't need an OUI to generate MAC addresses (or who are low volume vendors that can use a smaller MA-M or MA-S rather than a 2^24 address MA-L block should be able to use a CID rather than consuming OUI space.

**Comment: i-5**

There should be a footnote pointing to the IEEE Registration Authority as the place to get an OUI or CID. The URL for that should be http://standards.ieee.org/regauth since is on the list of durable URLs for IEEE to maintain.

Comment also applies to 8.5

Problem:

 802.21 supports organizationally unique identifier (OUI) which is assigned by IEEE-RA.

 “company identifier (CID)” is useful for a vendor who do not need an OUI to generate MAC addresses. But, CID is not allowed in the latest 802.21m draft.

Suggested remedy:

 Support CID.

 Add an instruction text for IEEE-RA.

1. Abbreviations and acronyms

CID company identifier

6.5.5 Definition of information element namespace

Table 10—Information element namespace

|  |  |  |
| --- | --- | --- |
| Range | Description | Comments |
| 0x00000000 | Reserved |  |
| 0x00000001–0x1FFFFFFF | IEEE 802.21 IEs | Used for IEEE 802.21 defined IEs. The cur­rently defined IEEE 802.21 IEs are listed in Table F.1 in Annex F. |
| 0x20000000–0x7FFFFFFF | Vendor specific IEs | Used for IEs defined by vendors.To prevent vendor specific IE collisions, the 2nd, 3rd, and 4th octet are filled with the value of the vendor’s IEEE organizationally unique identifier (OUIa) or company identifier (CIDa). For example, if a vendor’s IEEE OUI is 00-03-3F, then its corresponding Vendor Specific IE range would be 0x2000033F–0x7F00033F. |
| 0x80000000–0x82FFFFFF | Reserved for playpen area. | Used in development and testing. Should not be used in released products. Avoids collision during development. |
| 0x83000000–0xFFFFFFFF | Reserved | For future use. |

a Interested applicants should contact the IEEE Registration Authority, http://standards.ieee.org/regauth .

1. 1. Message parameter TLV encoding

The following general TLV encoding shown in Figure 38 shall be used for all parameters in an MIS protocol message.

|  |  |  |
| --- | --- | --- |
| Type(1 octet) | Length(variable octets) | Value(variable octets) |
| Type of this parameter | Length of the *value* field of this parameter | Value of this parameter |

Figure 38—Message parameter TLV encoding

Specifically, the *Type* field is one octet[[1]](#footnote-1), and the *Length* shall be encoded with the rules described in 6.5.6.2.

Moreover, TLV *Type* values shall be unique within the MIS protocol. The TLV encoding starts at 1 and any subsequent values are assigned in ascending order (see Annex K, Table K.2).

The TLV encoding of the vendor specific TLV (type = 111) is shown in Figure 39.



Figure 39—The TLV encoding for the vendor specific TLV (Type = 111)

* + - * 1.
1.
1. The TLV *Type* field length is different than the Information Element *Type* length, which is four octects. [↑](#footnote-ref-1)