|  |  |
| --- | --- |
| Project | **IEEE 802.21a** **<https://mentor.ieee.org/802.21>** |
| Title | **Sequence Number** |
| DCN | 21-11-0044-00-0sec |
| Date Submitted |  |
| Source(s) | Fernando Bernal (UMU), Rafael Marin-Lopez (UMU) |
| Re: |  |
| Abstract | This document contents addtions in order to support a sequence number. |
| Purpose | Proposes changes in the current draft |
| 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#_blank) <[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#_blank)> and in *Understanding Patent Issues During IEEE Standards Development* [http://standards.ieee.org/board/pat/faq.pdf](http://standards.ieee.org/board/pat/faq.pdf#_blank) |

|  |  |
| --- | --- |
| Ref. | 001 |
| DRAFT SECTION | 8.6.1.12 MIH\_Auth request |
| Page/line | 35/15 |
| Modification type | ADD |
| Text | SEQ(Sequence-Number TLV) |

|  |  |
| --- | --- |
| Ref. | 002 |
| DRAFT SECTION | 8.6.1.13 MIH\_Auth response |
| Page/line | 35/57 |
| Modification type | ADD |
| Text | SEQ(Sequence-Number TLV) |

|  |  |
| --- | --- |
| Ref. | 003 |
| DRAFT SECTION | Annex L |
| Page/line | 63/36 |
| Modification type | ADD |
| Text | TLV type name: Sequence-Number TLV type value: 69Data type: SEQ\_NUM |

|  |  |
| --- | --- |
| Ref. | 004 |
| DRAFT SECTION | F.3.16 Data type for security |
| Page/line | 61/23 |
| Modification type | ADD |
| Text |

|  |  |  |
| --- | --- | --- |
| Data type | Derived from | Definition |
| SEQ\_NUM | UNSIGNED\_INT(32) | This specifies a sequence number .Use rules:* Initialized with a random value.
* It is incremented by 1 (modulo 232-1) as new requests are generated.
* Each time a new MIH request is generated a new sequence number is included.
* MIH response messages always contain the same value as the corresponding MIH request.
* If a retransmission is carried out, the same SEQ\_NUM is re-used and contained in the original packet.
* A MIH request message will be valid if and only if the SEQ\_NUM matches with the expected value.
* A MIH response message will be valid if and only if the SEQ\_NUM matches with the currently outstanding request.
 |

 |