|  |  |
| --- | --- |
| Project | **IEEE 802.21.1 Media Independent Services**  **<**[**http://www.ieee802.org/21/**](http://www.ieee802.org/21/)**>** |
| Title | **Suggested remedy for Cmt #162 and #163 of LB9** |
| DCN | **21-16-0015-01-SAUC** |
| Date Submitted | **January 30, 2016** |
| Source(s) | Yoshikazu Hanatani (Toshiba) |
| Re: | Session #72, Atlanta |
| Abstract | MBBHandoverSupport and MobilityManagementSupport are handover specific parameter. So, MBBHandoverSupport parameter in MIS\_Capability\_Discovery primitives and messages, and MobilityManagementSupport parameter in MIS\_Link\_Up primitive and message should be moved from 802.21m to 802.21.1. |
| Purpose | Suggested remedy for Cmt #162 and 163 in LB9. |
| 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> |

Suggested remedy:

Change as follows.

*Add following rows to Table 9*

Table 9—MIS\_SAP primitives

|  |  |  |  |
| --- | --- | --- | --- |
| **Primitives** | **Service category** | **Description** | **Defined in** |
| Link\_Up | Event | L2 connection has been established | 7.3.2 in IEEE 802.21m |

*Add following rows to Table 10*



Table 10—MIS\_SAP primitives

|  |  |  |  |
| --- | --- | --- | --- |
| **Primitives** | **Service category** | **Description** | **Defined in** |
| MIS\_Capability\_Discover | Service management | Discover list of Events and Command supported by MISF | 7.4.1 in IEEE 802.21m |
| MIS\_Link\_Up | Event | L2 connection has been established | 7.4.9 in IEEE 802.21m |

*Add following rows to Table G.2*

**Table G.2—Type values for TLV encoding**

|  |  |  |
| --- | --- | --- |
| **TLV type name** | **TLV type value**a | **Data type** |
| MBB handover support | 10 | LIST(MBB\_HO\_SUPP) |
| Mobility management support | 18 | IP\_MOB\_MGMT |

*Add following rows to Table E.6*

Table E.6—Data type for MIS capabilities

|  |  |  |
| --- | --- | --- |
| **Data type name** | **Derived from** | **Definition** |
| MBB\_HO\_SUPP | SEQUENCE(  NETWORK\_TYPE, NETWORK\_TYPE, BOOLEAN  ) | Indicates if make before break is supported FROM the first network type TO the second net­work type.  The BOOLEAN value assignment:  True: Make before break is supported. False: Make before break is not supported. |

*Add following new subclause E.XXX and new table E.ZZZ to Annex E*

**E.XXX Data types for IP configuration**

**Table E.12—Data types for IP configuration**

|  |  |  |
| --- | --- | --- |
| **Data type name** | **Derived from** | **Definition** |
| IP\_MOB\_MGMT | BITMAP(16) | Indicates the supported mobility management protocols.  Bit 0: Mobile IPv4 (IETF RFC 5944)  Bit 1: Mobile IPv4 Regional Registration (IETF RFC 4857)  Bit 2: Mobile IPv6 (IETF RFC 6275)  Bit 3: Hierarchical Mobile IPv6 (IETF RFC 4140)  Bit 4: Low Latency Handoffs (IETF RFC 4881)  Bit 5: Mobile IPv6 Fast Handovers (IETF RFC 5268)  Bit 6: IKEv2 Mobility and Multihoming Protocol (IETF RFC 4555)  Bit 7–15: (Reserved) |

*Add following sublcause as 5.10.AAA*

**5.10.AAA Link\_Up.indication**

This primitive is defined in 7.3.2 of Draft IEEE 802.21m/D02. Following additional parameter is needed while using this primitive for handover use.

Use case specific parameters

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Description** |
| MobilityManagementSupport | IP\_MOB\_MGMT | (Optional) Indicates the type of Mobility Manage­ment Protocol supported by the new PoA. |

*Add following sublcause as 5.11.BBB and 5.11.CCC*

5.11 MIS\_SAP primitives

**5.11.BBB MIS\_Capability\_Discover**

This primitive is defined in 7.4.1 of Draft IEEE 802.21m/D02. Following additional parameter is needed while using this primitive for handover use.

Use case specific parameters

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Description** |
| MBBHandoverSupport | LIST(MBB\_HO\_SUPP) | (Optional) This is used to indicate if a make before break handover is supported on the remote MISF. Break before make handover is always supported. |

MBBHandoverSupport parameter needs to be added to MIS\_Capability\_Discover.request, MIS\_Capability\_Discover.indication, MIS\_Capability\_Discover.response, and MIS\_Capability\_Discover.confirm specified in 7.4.1 of Draft IEEE 802.21m/D02.

**5.11.CCC MIS\_Link\_Up.indication**

This primitive is defined in 7.4.7 of Draft IEEE 802.21m/D02. Following additional parameter is needed while using this primitive for handover use.

Use case specific parameters

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Description** |
| MobilityManagementSupport | IP\_MOB\_MGMT | (Optional) Indicates the type of Mobility Manage­ment Protocol supported by the new PoA. |

*Add following new subclauses 5.13.DDD to 5.13*

**5.13.DDD Messages for service management**

**5.13.DDD.1 MIS\_Capability\_Discover**

MBB Handover Support TLV needs to be added to MIS\_Capability\_Discover request, and MIS\_Capability\_Discover response specified in 8.6.1 of Draft IEEE 802.21m/D02.

Use case specific TLVs

|  |
| --- |
| MBBHandoverSupport (optional) (MBB handover support TLV) |

*Add following new subclauses 5.13.EEE to 5.13.1*

**5.13.1 MIS messages for event services**

**5.13.1.EEE MIS\_Link\_Up**

MobilityManagementSupport TLV needs to be added to MIS\_Link\_Up indication specified in 8.6.2.2 of Draft IEEE 802.21m/D02.

Use case specific TLV

|  |
| --- |
| MobilityManagementSupport (optional) (Mobility management support TLV) |