

1
2

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Secondary Management Connection Transport	
Date Submitted	2007-01-18	
Source(s)	Peretz Feder – ALU Phil Barber - Huawei	pfeder@alcatel-lucent.com , pbarber@huawei.com
Re:		
Abstract	Fixes to section 14.2.3	
Purpose	Adoption, Replacing IP signaling with simple payload	
Notice	This document has been prepared to assist IEEE 802.16. 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 this contribution may be made public by IEEE 802.16.	
Patent Policy and Procedures	<p>The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) <http://ieee802.org/16/ipr/patents/policy.html>, including the statement “IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard.”</p> <p>Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <mailto:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site <http://ieee802.org/16/ipr/patents/notices>.</p>	

3 **Changes to Section 14. 2. 3**

4 Peretz Feder - Alcatel Lucent
5 Phil Barber - Huawei

6
7

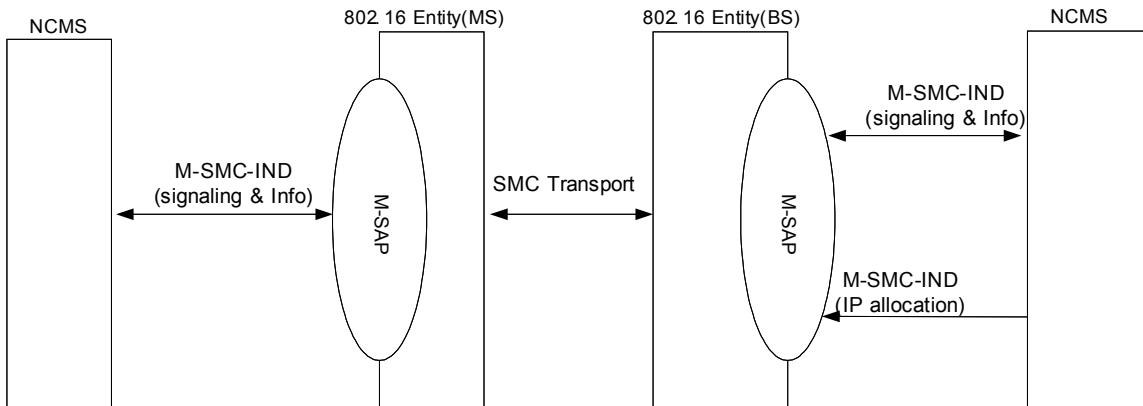
1 **Abstract**

2
3 Correct section 14.2.3 “IP management with secondary management
4 connection”. Replace DHCP/MIP and IP address signaling with a generic
5 payload. Payload may carry IP signaling but no need to be shown in the spec.
6

7 **14.2.3 IP Management with Ssecondary Mmanagement Connection**

8 These primitives are provided when the IP connection is managed by the secondary management connection. It is
9 available for both IPv4 and IPv6.

10
11



12
13

14 **Figure 477—SMC IP address signaling transport and notification**

15 **14.2.3.1 M-SMC-IND**

16
17 **Function:**
18

19 This primitive is used by an 802.16 entity or the NCMS to transfer DHCP or MIP signaling payload information
20 that may include IP address, signaling and information. It also can be used by the NCMS to notify the BS of an
21 SS IP address status change and its new address. The Event Type included in this primitive defines the
22 information included in this primitive. The possible Event Types for this primitive are listed in the Table below:

23
24

Event Type	Description
<u>SMC-INDDHCP_TRANSFER</u>	Forward <u>SMCDHCP</u> payload <u>between DHCP-client and DHCP server</u> .
<u>MIP_TRANSFER</u>	Forward <u>MIP</u> payload <u>between MIP-client and MIP agent</u>

IP_ALLOCATION NCMS notify the BS of a SS/MS' IP address status change

25

26 **14.2.3.1.1 M-SMC-IND (Event_Type==DHCP_TRANSFER)**

27 **Function:**

28 ~~DHCP payloads are exchanged between an DHCP Client and a DHCP Server entity. The DHCP payloads are~~
29 ~~encapsulated in the DHCP Transfer primitive because it is not interpreted in the 802.16 entity.~~

30

31 **Semantics of the service primitives:**

32 The parameters of the primitives are as follows:

33 M-SMC-IND
34 (
35 Event_Type(~~SMC-IND~~)~~DHCP_TRANSFER~~),
36 Destination(SS, ~~or~~ BS, or NCMS),
37 Attribute_list:
38 SS MAC Address
39 ~~SMC~~~~DHCP~~ Payload
40)

41
42 **SS MAC Address**
43 48-bit unique identifier used for ~~the 802.16 entity~~user identification, ~~between BS and~~
44 ~~NCMS~~
45 **~~SMC~~~~DHCP~~ Payload**
46 Contains the ~~DHCP-SMC~~ payload

47 **When generated:**

- 48 •802.16 entity to NCMS:
49 This primitive is generated when the 802.16 entity ~~sends~~ ~~receives~~ ~~DHCP to the NCMS~~ traffic
50 ~~received~~ over ~~the~~ secondary management connection.
- 51 •NCMS to 802.16 entity:
52 This primitive is used when the ~~NCMS DHCP entity in NCMS sends~~ ~~DHCP wants to send~~ ~~SMC~~
53 traffic ~~over the air~~ to an 802.16 entity.

54 **Effect of receipt:**

- 55 •802.16 entity to NCMS:
56 ~~On receipt of this primitive from the M-SAP, the NCMS examines the payload. If it contains IP~~
57 ~~address signaling, the NCMS will engage the proper signaling agent (DHCP or MIP). The DHCP entity~~
58 ~~(server or relay) in NCMS processes the DHCP signaling.~~
- 59 •NCMS to 802.16 entity:
60 ~~On receipt of this primitive (The 802.16 entity~~ ~~transfers the SMC payload over the air, transmits~~
61 ~~DHCP payload from the primitive over secondary management connection.~~

62 **14.2.3.1.2 M-SMC-IND (Event_Type=MIP_TRANSFER)**

63 **Function:**

64 ~~MIP payloads are exchanged between a mobility entity in the NCMS. The MIP payloads are encapsulated in the~~
65 ~~MIP Transfer primitive because it is not interpreted in the 802.16 entity.~~

66 **Semantics of the service primitives:**

1 The parameters of the primitives are as follows:

```

2         M-SMC-IND
3         (
4             Event_Type(MIP_TRANSFER),
5             Destination(MS, or BS, or NCMS),
6             Attribute_list:
7                 MS MAC Address
8                 MIP Payload
9         )
10
11     MS MAC Address
12         48-bit unique identifier used for user identification between BS and NCMS
13
14     MIP Payload
15         Contains the MIP payload

```

16 **When generated:**

- 17 ~~•802.16 entity to NCMS:~~
 18 This M-SMC-IND (MIP_TRANSFER) primitive is generated when the 802.16 entity receives
 19 MIP signaling traffic over secondary management connection.
- 20 ~~•NCMS to 802.16 entity:~~
 21 This primitive is used when the MIP agent in NCMS sends MIP signaling traffic to an 802.16
 22 entity.

23 **Effect of receipt:**

- 24 ~~•802.16 entity to NCMS:~~
 25 The MIP entity in NCMS processes the MIP signaling.
- 26 ~~•NCMS to 802.16 entity:~~
 27 The 802.16 entity transmits MIP payload from the primitive over secondary management
 28 connection.

29 **14.2.3.1.3 M-SMC-IND_(Event_Type==IP_ALLOCATION)**

30 **Function:**

31 ~~When the After MIP or DHCP exchanges are completed, the status of IP address for a SS/MS is may be changed.~~
 32 ~~For the BS, NCMS in the BS may notify the BS of the new status of the IP SS/MS address of the SS/MS.~~
 33 If the status value is NEW, ~~the NCMS sends the~~ new allocated IP address ~~for the SS/MS in this primitive.~~ This
 34 primitive is only ~~sent~~ from ~~the NCMS to the~~ BS.

35 **Semantics of the service primitives:**

36 The parameters of the primitives are as follows:

```

37         M-SMC-IND
38         (
39             Event_Type(IP_ALLOCATION),
40             Destination(BS),
41             Attribute_list:
42                 SS MAC Address
43                 Status
44                 IP Address
45         )
46
47     SS MAC Address
48         48-bit unique identifier used for user identification between BS and NCMS
49
50     Status

```

1 The status of the IP address of a SS/MS. The value may be NEW, REMAIN,
2 RELEASE
3 **IP Address**
4 If the Status value is NEW, this parameters should be thea new allocated address
5 allocated of to the SS/MS using DHCP or MIP.
6

7 **When generated:**

8 This primitive is issued by thea NCMS (a DHCP client or a Mobility Agent) when the IP address of the SS has
9 changedexchange procedure are successfully completed.

10 **Effect of receipt:**

11 The BS learns knows about the status and the new IP address and its status of the SS.

12