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	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." 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>.	

Changes to Section 14. 2. 3

Peretz Feder - Alcatel Lucent
Phil Barber - Huawei

Abstract

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

14.2.3 IP Management with Ssecondary Mmanagement Connection

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

< Instruction to the 802.16g editor: Existing figures 477, 478, 479 to be deleted and replaced by the following one. >

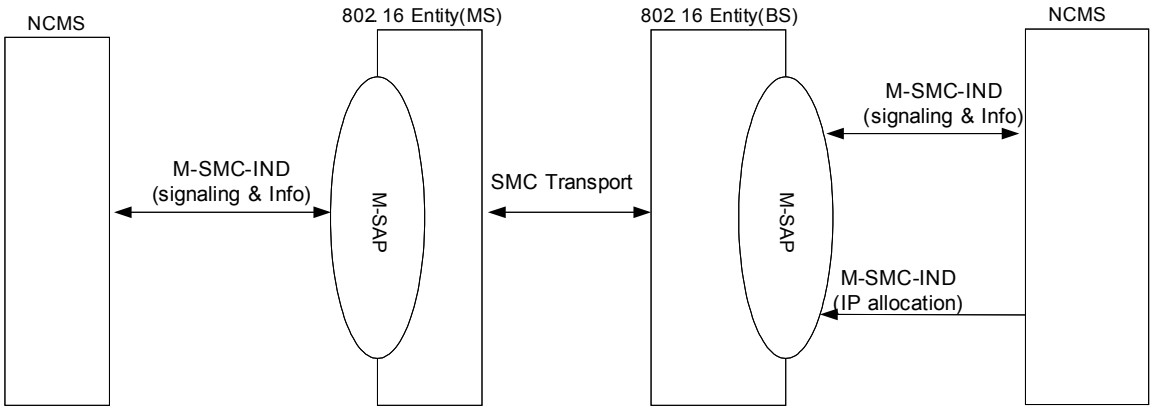

Figure 477—SMC IP address signaling transport and notification

14.2.3.1 M-SMC-IND

Function:

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

Event Type	Description
SMC-INDDHCP_TRANSFER	Forward SMCDHCP payload. between DHCP client and DHCP server.

~~MIP_TRANSFER~~	~~Forward MIP payload between MIP client and MIP agent~~
IP_ALLOCATION	NCMS notify the BS of a SS/MS' IP address status change

14.2.3.1.1 M-SMC-IND (Event_Type==~~DHCP_TRANSFER~~SMC-IND)

Function:

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

SMC payload is sent from NCMS (BS) to 802.16 Entity (BS).

Semantics of the service primitives:

The parameters of the primitives are as follows:

M-SMC-IND
(
Event_Type(SMC-IND)~~DHCP_TRANSFER~~),
Destination(SS, ~~or~~ BS, or NCMS),
Attribute _list:
SS MAC Address
SMC~~DHCP~~ Payload
)

SS MAC Address
48-bit unique identifier used for the 802.16 entity~~user~~ identification~~ between BS and NCMS~~

SMC~~DHCP~~ Payload
Contains the ~~DHCP~~ SMC payload

When generated:

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

Effect of receipt:

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

~~14.2.3.1.2 M-SMC-IND (Event_Type=MIP_TRANSFER)~~

~~Function:~~

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

~~Semantics of the service primitives:~~

~~The parameters of the primitives are as follows:~~

~~**M-SMC-IND**~~
~~(~~
~~Event_Type(MIP_TRANSFER),~~
~~Destination(MS, or BS, or NCMS),~~
~~Attribute_list:~~
~~MS MAC Address~~
~~MIP Payload~~
~~)~~

~~**MS MAC Address**~~
~~48-bit unique identifier used for user identification between BS and NCMS~~
~~**MIP Payload**~~
~~Contains the MIP payload~~

~~When generated:~~

- ~~802.16 entity to NCMS:~~
  ~~This M-SMC-IND (MIP TRANSFER) primitive is generated when the 802.16 entity receives MIP signaling traffic over secondary management connection.~~
- ~~NCMS to 802.16 entity:~~
  ~~This primitive is used when the MIP agent in NCMS sends MIP signaling traffic to an 802.16 entity.~~

~~Effect of receipt:~~

- ~~802.16 entity to NCMS:~~
  ~~The MIP entity in NCMS processes the MIP signaling. .~~
- ~~NCMS to 802.16 entity:~~
  ~~The 802.16 entity transmits MIP payload from the primitive over secondary management connection.~~

14.2.3.1.~~3~~ 2 M-SMC-IND (Event_Type==IP_ALLOCATION)

Function:

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

Semantics of the service primitives:

The parameters of the primitives are as follows:

M-SMC-IND
(
Event_Type (IP_ALLOCATION),
Destination (BS),
Attribute _list:
SS MAC Address
Status
IP Address

)

SS MAC Address

48-bit unique identifier used for user identification between BS and NCMS

Status

The status of the IP address of a SS/MS. The value may be NEW, REMAIN, RELEASE

IP Address

If the Status value is NEW, this parameters should be thea new allocated address allocated of to the SS/MS using DHCP or MIP.

When generated:

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

Effect of receipt:

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