Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
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Source(s)	Yong-Ho Kim LG Electronics,Inc. 533,Hogye-1dong,Dongan-gu, Anyang-shi,Kyongki-do,Korea Voice: 82-31-450-4387 Fax: 82-31-450-7912 mailto: ronnykim@lge.com
Re:	Response to IEEE 802.16-04/19 (Recirculation Ballot #14a Announcement)
Abstract	IP version 6 Addressing
Purpose	IP version 6 Addressing Consideration
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IP version 6 Address Allocation

Yong-Ho Kim

LG Electronics

1. Introduction

IEEE 802.16e uses DHCP, and Mobile IP in order to allocate IP addresses to MSSs. However, when IP version 6 is used, IP address is configured by one of following ways.

1. IPv6 Stateless Address Autoconfiguration [IETF RFC 2462]
2. Stateful Address Autoconfiguration protocol, such as DHCPv6 [IETF RFC 3315]

This document describes changes suggested for 802.16e draft to allocate IP version 6 address by stateful or stateless procedures.

2. Proposed Changes in Document

Remedy:
Add SS IP version 6 addressing and change language in relevant sections to separate IP version 4 and IP version 6 addressing.

Remedy1:

[Modify the paragraph of 6.3.9.10 in page 28 as follows]

6.3.9.10 Establish IP connectivity

For an MSS, if mobile IP is being used, the MSS may secure it's address on the secondary management connection using mobile IP.

Otherwise, for fixed SS and for MSSs using IPv4 and no using mobile IP, the SS shall invoke DHCP mechanisms [IETF RFC 2131] in order to obtain an IP address and any other parameters needed to establish IP connectivity. The DHCP response shall contain the name of a file which contains further configuration parameters.
For fixed SS and for MSSs using IPv6, the SS shall either invoke DHCPv6 [IETF RFC 3315] or IPv6 Stateless Address Autoconfiguration [IETF RFC 2462] based on the value of TLV tuple in REG_RSP.
Establishment of IP connectivity shall be performed on the SS's Secondary Management Connection; see Table 96.

Remedy2:

*[Modify the table in **11.3.2.12 Method for allocating IP address, 11.7.9 Method for allocating IP address** in page 88]*

11.3.2.12 Method for allocating IP address

Type	Length	Value	Scope
5.23	1	bit #0: DHCP - default bit #1: Mobile IPv4 ~~bit #2-7: reserved; shall be set to zero~~ bit #2: DHCPv6 bit #3: IPv6 Stateless Address	REG_REQ REG_RSP

		Autoconfiguration bit #4-7: reserved; shall be set to zero	

11.7.9 Method for allocating IP address

Type	Length	Value
17	1	bit #0: DHCP bit #1: Mobile IPv4 ~~bit #2-7: reserved; shall be set to zero~~ bit #2: DHCPv6 bit #3: IPv6 Stateless Address Autoconfiguration bit #4-7: reserved; shall be set to zero