Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Fix for Location Update primitive**
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Source(s)	ZTE corporation	xu.ling@zte.com.cn
	Xu Ling	
	Mary Chion	
	CATR	
	Gong Daning	gongdaning@catr.com.cn

Re:	Contribution on comments to P802.16g-D1
Abstract	In this contribution, we propose to amendment the protocol through add the new message about Location Update
Purpose	Adoption
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Amendment for Location Update message

1. Introduction

In the current baseline document, there has a location update procedure. After the location update has finished, there need a message from 802.16 entity to notify NCMS that the Location update has been complete.

Another proposal is to add Authenticator ID in C-PG-RSP which is used by BS to implement authenticate procedure.

2. Proposed Text Changes

14.2.9.3.1 Location Update Procedure

….

All the above Location Updates are realized by Ranging request/response (RNG-REQ/RSP) message between an MS and a BS, and ~~Location Update request and Location Update response~~C-PG-REQ, C-PG-RSP,C-PG-NOTFY service primitives are defined between a BS and an NCMS to perform Location Update.

Figure 498 shows service primitives for Location Update between a BS and an NCMS.

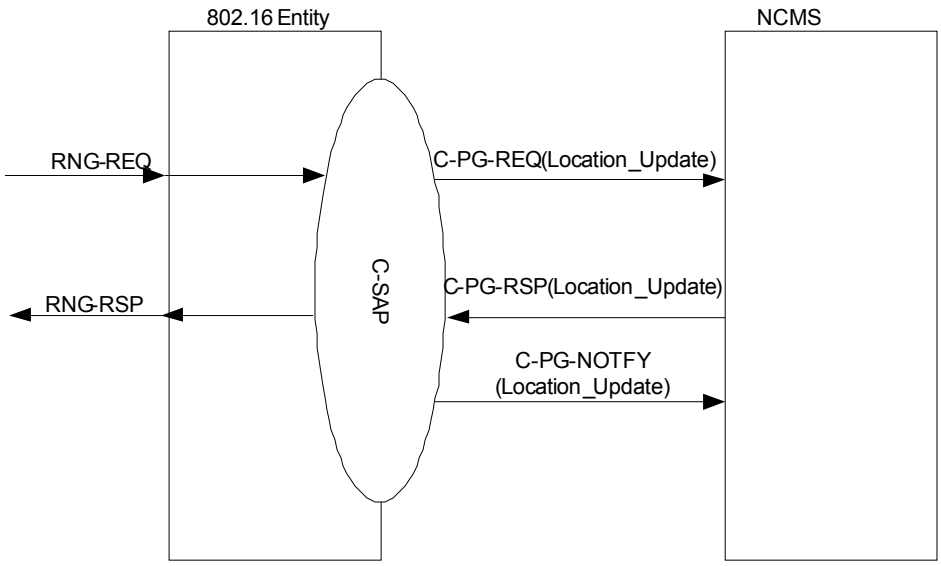

Figure 498— Location Update Primitives

[Modify Location Update flow diagram between NCMS and BS as the following]

14.2.9.3.2.2 C-PG-RSP

14.2.9.3.2.2.1 Function

This primitive is issued by the NCMS to respond to Location Update request from the 802.16 entity.

14.2.9.3.2.2.2 Semantics of the service primitive

The parameters of the primitives are as follows:

C-PG-RSP
(
Operation_type: ~~Set~~Action,
Action_type: Location Update,
Object_ID: BS,
Attribute_List:
MS MAC Address
Location Update Result
Paging Information
Paging Controller ID
MAC Hash Skip Threshold
Power Down Response
Authentication Information
)

MS MAC Address
48-bit MAC address which will identify MS

Location Update Result
Response to Location Update Request:
0b00=Failure. The MS shall perform Network Re-entry from Idle Mode;
0b01=Success of assign Paging Controll and Paging Information.
0b10, 0b11: Reserved

……

Security Information
The information which can be used by BS to implement authentication procedure.

[Add a new section as follow:]

14.2.9.3.2 Service Primitives for Location Update

14.2.9.3.2.3 C-PG-NOTFY

This primitive is used by BS to notify a location update procedure has been completed. The Event Type included in this primitive defines the type of location update procedure to be performed. The possible Operation Types for this primitive are listed in Table below:

Event Type	Description
Location_Update_CMPLT	Notify the NCMS the location update procedure is completed

14.2.9.3.2.3.1 Function

This primitive is issued by the BS to NCMS.

14.2.9.3.2.3.2 Semantics of the service primitive

The parameters of the primitives are as follows:

C-PG-NOTFY
(
Message_id,
Event_Type(Location_Update_CMPLT)
Object_ID: NCMS,
Attribute_List:
MS MAC Address
BS ID
Location Update Result

)

MS MAC Address
48-bit MAC address which will identify MS
BS ID
Identifier of serving BS
Location Update Result
Notify the result of authentication interaction between BS and NCMS:
0x00=Failure of Idle Mode Location Update. The MS shall perform Network Re-entry from Idle Mode
0x01=Success of Idle Mode Location Update
others: Reserved

14.2.9.3.2.3.3 When generated

This primitive is generated at a BS after the BS finished authentication procedure and it is in order to notify NCMS that the location update procedure has been completed.

14.2.9.3.2.2.4 Effect of receipt

The NCMS receives this message and get the information that the location update has been completed.