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Re:	Comment on P802.16g/D3
Abstract	This contribution proposes amendment to location management.
Purpose	Adoption
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Amendment to Location Management in Section 14.2.11.2

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1. Introduction

In Section 14.2.11.2, service primitives for location management are defined. However, currently defined service primitives do not distinguish secure location update and unsecure location update, which are defined in IEEE 802.16e standard. Thus, in this contribution, we add Authentication Indicator both in C-PG-REQ and C-PG-RSP primitives in order to decide whether the location update is secure or unsecure.

2. Proposed Text Changes

[Modify section 14.2.11.2.2.1.2 and 14.2.11.2.2.1.3 as follows]

14.2.11.2.2.1.2 Semantics of the service primitive

The parameters of the primitives are as follows:

C-PG-REQ (BS _ NCMS)
(
Operation_type: Set,
Action_type: Location Update,
Object_ID: BS,
Attribute_List:
        MS MAC Address
        BS ID
        Paging Controller ID
        Paging Group ID
        MAC Hash Skip Threshold
        Power Down Indicator
        Authentication Indicator
)

MS MAC Address
48-bit MAC address which will identify MS
BS ID
Identifier of serving BS
Paging Controller ID
The Paging Controller ID is a logical network identifier for the serving BS or other network
entity retaining MS service and operational information and/or administering paging activity
for the MS while in Idle Mode.
Paging Group ID
One or more logical affiliation groupings of BS
MAC Hash Skip Threshold

Maximum number of successive MOB_PAG-ADV messages that may be sent from a BS without individual notification for an MS, including MAC address hash of an MS for which Action Code is 00, 'No Action Required'.
Power Down Indicator
Indicates the MS is currently attempting to perform Location Update due to power down.
Authentication Indicator
Indicates whether the location update is secure location update or unsecure location update.

14.2.11.2.2.1.3 When generated
This primitive is generated when the BS receives RNG-REQ message with Paging Controller ID and Ranging Purpose Indication with bit #1 set to 1, MAC Hash Skip Threshold, Power Down Indicator, or Authentication Indicator

[Modify section 14.2.11.2.2.2.2 as follows]

14.2.11.2.2.2.2 Semantics of the service primitive

The parameters of the primitives are as follows:

C-PG-RSP
(
Operation_type: 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 Indicator
        Security 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 Controller and Paging Information.
0b10, 0b11: Reserved
Paging Information
New Paging Information assigned to MS. Paging Information shall only be included if Location Update Response=0x01 and if Paging Information has changed. The Paging Information TLV defines the Paging Group ID, PAGING_CYCLE and PAGING OFFSET parameters to be used by the MS in IDLE mode.
PAGING_CYCLE is the cycle in which the paging message is transmitted within the paging group. PAGING OFFSET determines the frame within the cycle in which the paging message is transmitted and it must be smaller than PAGING CYCLE value. Paging Group ID specifies the paging group the MS is assigned to.
Paging Controller ID
Paging Controller ID is a logical network identifier for the serving BS or other network entity retaining MS service and operational information and/or administering paging activity for the MS while in Idle Mode. Paging

Controller ID shall only be included if Location Update Response=0x01 and if Paging Controller ID has changed.

MAC Hash Skip Threshold

Maximum number of successive MOB_PAG-ADV messages that may be sent from a BS without individual notification for an MS, including MAC address hash of an MS for which Action Code for the MS is 00,'No Action Required'. If BS does not include this TLV item in the RNGRSP message, any BS may omit MAC Address Hash of the MS with Action Code 00,'No Action Required' from any MOB_PAG-ADV message.

Power Down Response

Indicates the MS's Power Down Location Update result.

0x00= Failure of Power Down Information Update.

0x01= Success of Power Down Information Update.

Authentication Indicator

Indicates whether the location update is secure location update or unsecure location update.

0x00= no authentication information

0x01= authentication information present

Security Information

The information which can be used by BS to implement authentication procedure. This Information is optional and it is only included when Authentication Indicator indicates secure location update.