Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Resource Retain Time**
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Re:	Call for Maintenance Change Requests on IEEE Std 802.16
Abstract	This document suggests modifications to the values of Resource Retain Time and Serving BSID AIGNG TIMER that allows a BS and an MS to retain contexts for network re-entry and re-synchronization.
Purpose	Adopt changes
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Resource Retain Time

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Introduction

When the MS in active state experiences temporary out-of-range situation for some time duration (e.g., going through a tunnel, getting caught in a traffic jam under the shadow of a tall building, etc.) current IEEE802.16e-2005 defines that the MS and the BS will lose an active connection and consequently erase an existing session. When the MS subsequently returns from the out-of-range condition, the MS will then be required to conduct network entry procedure and this will cause a user to experience uncomfortable disruption due to re-negotiation of air session.

Problem Statement

An MS tries to receive DL when the MS detects signal loss, or the MS also tries to synchronize DL when the MS does not receive DL-MAP and DCD messages. In some cases (e.g., going through a tunnel, getting caught in a traffic jam under the shadow of a tall building, etc.), the loss of synchronization state is temporary and the synchronization can be recovered within a short period of time. In this case, if the MS and the BS maintain contexts for network re-entry and re-synchronization, a fast re-establishment of a connection can be realized without some hand shakes.

Proposed Remedy

The proposed remedies to this problem are summarized as follows:

- 11.7.13.1 System Resource_Retain_Time. Change to default value from 200 msecs to 3300 msecs (5.5 minutes)
- 11.15.1 Resource_Retain_Time. Change max value from 255 msecs to 65535 msecs.
- Table 342 Parameters and constants: Change max value of Serving BS ID AGING-TIMER from 5 seconds to 65535 seconds.

Proposed Text Change

[Modify following values in Table of Section 11.7.13.1 on page 691 of IEEE 802.16e-2005]

Type	Length	Value	Scope
28	2	~~Multiple of 100 milliseconds~~ ~~200 milliseconds is recommended as default~~ 0-65535: In units of 100 milliseconds 300 is default	REG-RSP

[Modify following values in Table of Section 11.15.1 on page 754 of IEEE 802.16e-2005]

Type	Length	Value	Scope
1	2	0: The serving BS will retain the MS's connection information during Resource_Retain_Time negotiated at registration stage. 1-~~255~~65535: Resource Retain Time (100 milliseconds unit)	MOB_BSHO-REQ MOB_BSHP-RSP

[Modify following values in Table 342 of Section 10.1 on page 653 of IEEE 802.16e-2005]

System	Name	Time Reference	Minimum Value	Default Value	Maximum Value
MS	Serving BS ID AGING-TIMER	Nominal time for aging of serving BS association. Timer recycles on successful serving BS DL-MAP read	=	=	~~5s~~ 655s