Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**	
Title	**Full State Sharing Bit Semantics**	
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Re:	802.16 corrigendum 2	
Abstract	A clarification to the meaning of "full state sharing" bit in RNG_RSP during network re-entry from idle mode is proposed.	
Purpose	Review and approve.	
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Clarification to the meaning of the "full state sharing" bit in RNG_RSP during network re-entry

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Abstract

Clarify meaning of "full state sharing" bit in RNG_RSP during network re-entry from idle mode.

This information should refer to the SFIDs and the associated QoS parameters of the service flows the MS had established and to all SAs the MS had established before going into idle mode. The reference to ARQ state in this case is not applicable since normally an MS in idle mode has no ARQ packets in transit or waiting to be retransmitted.

This comment proposes the necessary changes to HO Process Optimization TLV in RNG_RSP MAC Management Message when RNG_RSP is part of network re-entry from idle mode.

Change #1

[Modify Section 6.3.22.2 as indicated]

6.3.22.2 HO process

The subclause defines the HO process in which an MS migrates from the air-interface provided by one BS to the air-interface provided by another BS. The HO process consists of the following stages:

[…]

In case Bit #6 in HO Process Optimization TLV is set, full service and operational state transfer or sharing between Serving BS and Target BS is assumed (ARQ state, all timers, counters, MAC state machines, CIDs, Service Flows information and other connection information), so BS and MS do not exchange network re-entry messages after ranging before resuming normal operations. A full list of optimization capabilities is provided in definition of HO Process Optimization TLV (Table 367). When this TLV is included in RNG_RSP sent to an MS performing network re-entry from idle mode, Bit #6 does not refer to any ARQ state (blocks in ARQ window and associated timers). It refers only to SFIDs and related settings (QoS descriptors and CS classifier information) for all Service Flows that the MS had established when it entered idle mode as well as any SAs and their related keying material.

Change #2

[Modify Section 6.3.22.2.7 as indicated]

6.3.22.2.7 Network entry/re-entry

Unless otherwise indicated in this subclause, MS mobile network entry/re-entry is processed according to 6.3.9.

[…]

To notify an MS seeking HO of possible omission of re-entry process management messages during the current HO attempt (due to the availability of MS service and operational context information obtained over the backbone network), the target BS shall place in RNG-RSP an HO Process Optimization TLV indicating which re-entry management messages may be omitted. The MS shall complete the processing of all indicated messages before entering Normal Operation with target BS.

As indicated in the HO Process Optimization TLV settings, the target BS may elect to use MS service and operational information obtained over the backbone network to build and send unsolicited SBC-RSP and/or REG-RSP management messages to update MS operational information, or to include this information into TLV items in the RNG-RSP. If the target BS sends an unsolicited SBC-RSP or unsolicited REG-RSP message and the MS sends the corresponding SBC-REQ (REG-REQ) message, the BS may ignore only the first corresponding REQ management message received. The MS is not required to send the complimentary REQ management message if it receives an unsolicited SBC-RSP or unsolicited REG-RSP management message prior to MS attempt to send the corresponding REQ management message. Target BS re-entry unsolicited response management messages may be grouped into the same DL frame transmission with the RNG-RSP. However, unsolicited SBC-RSP and unsolicited REG-RSP may not be grouped together into the same DL frame transmission when the PKM-REQ/RSP management message process is required. For a security keying process that has not been determined to be omitted in the HO Process Optimization TLV settings, if MS RNG-REQ includes an serving BSID and Ranging Purpose Indication TLV with Bit #0 set to 1, and target BS has received a backbone message containing MS information, MS and target BS shall use the embedded TLV PKM-REQ information and the reauthorization process as defined in 7.2. When the HO Process Optimization TLV is included in RNG_RSP sent to an MS performing network re-entry from idle mode, Bit #6 does not refer to any ARQ state (blocks in ARQ window and associated timers). It refers only to SFIDs and related settings (QoS descriptors and CS classifier information) for all Service Flows that the MS had established when it entered idle mode as well as any SAs and their related keying material.

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