802.16j Relay Mobility Management-Idle/Sleep Adhoc Conference Call #1 Minutes

Chair: David Comstock
Vice Chair: Yuefeng Zhou

Details of the call:

Date/time: Monday, April 2: GMT 23:00-25:00 (2 hours)

Monday, April 2
NA PDT 16:00
NA CDT 18:00
NA EDT 19:00
Tuesday, April 3
China 07:00
Japan/Korea 08:00

Agenda:

1. Roll Call

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2. Review of the deferred comments/contributions identified in 80216j-07_011r3:

Number:	Comment:	Title:	Category:	Sub Category:	Status:
7_205r1	LL149	Sleep Mode Operations for distributed scheduling in MR Network	Mobility management	Sleep/idle mode	Deferred
Area:	• RS support for MS sleep				
Summary:	• A new MAC header is introduced which an RS sends to a superordinate node (MR-BS/RS) to acknowledge receipt of MS information from a message sent to an MS. The header is introduced in the context of MS sleep mode but is able to be used for any MAC message.				
Dependencies:	• For sleep mode, this contribution is dependent on 7_245 which proposes that an RS snoops MOB_SLP_RSP messages from the MR-BS to get sleep information for an MS. This contribution provides acknowledgement. • Both 7_205r1 and 7_245 are dependent on the security policy determined for relay networks. MS messages are protected by the HMAC/CMAC keys, which are currently only known by the MS and the MR-BS.				
Questions / Issues:	• Why is the acknowledgement from the RS needed? o In 802.16e there is no MAC message from the MS acknowledging MOB_SLP_RSP. o Since there may be multiple RS links, the acknowledgement is needed to match the performance of 802.16e. o The MR-BS should not consider the MS in sleep unless the acknowledgement is received from RS. o It was requested to see sequence diagrams for the sleep scenarios.				
Action items:	• Proponent of 7_205 to provide motivation for the acknowledgement for the MOB_SLP_RSP case on the [MOB Adhoc] email list. • Proponent of 7_205 to provide sequence diagrams for the sleep scenarios on the [MOB Adhoc] email list.				

Number:	Comment:	Title:	Category:	Sub Category:	Status:
7_245	118	Obtaining Sleep Mode Information in RS with distributed scheduling	Mobility management	Sleep/idle mode	Deferred
Area:	• RS support for MS sleep				
Summary:	• Proposes that an RS snoops MOB_SLP_RSP messages from the MR-BS.to get sleep information for an MS.				
Dependencies:	• See notes for 7_205 above.				
Questions / Issues:	• See notes for 7_205 above.				

Number:	Comment:	Title:	Category:	Sub Category:	Status:
7_010r6	116	Sleep Mode in MR network	Mobility management	Sleep/idle mode	Deferred
Area:	• RS support for MS sleep				
Summary:	• New MAC messages are introduced to provide an RS with sleep information of MS. This solution has the same purpose as 7_245/205 but does not have an issue with security.				
Dependencies:	• There is a possible dependency on whether RS can snoop messages sent to MS. If so, some (but not all) in the MOB Adhoc believe this solution is not necessary, rather 7_245 is sufficient.				

Questions/ Issues:	• The main issue is whether this solution is needed if RS can snoop messages sent to MS. would 7_245 be sufficient in this case? • Some in the group think that this solution is sufficient and does not require snooping into MS messages to find the MOB_SLP_RSP message. • Others believe that the additional signaling required by this solution is not efficient and results in latency.
Action Items:	• All to discuss on the [MOB Adhoc] email list their views on whether this solution is needed if RS can snoop MS messages.

Number:	Comment:	Title:	Category:	Sub Category:	Status:
7_035r2	31	MS Sleep Mode in MR network	Mobility management	Sleep/idle mode	Deferred

Area:	• RS support for MS sleep
Summary:	• New MAC messages are introduced to provide an RS with sleep information of MS.
Dependencies:	• This proposal has been harmonized with 7_010r6.
Questions/ Issues:	• See notes for 7_010r6 above.

Number:	Comment:	Title:	Category:	Sub Category:	Status:
7_066r2	76	RS Sleep Mode	Mobility management	Sleep/idle mode	Deferred

Area:	• RS sleep
Summary:	• Sleep for RS is proposed for power savings and interference reduction.
Dependencies:	• RS sleep window dependent of sleep windows of MSs being served.
Questions/ Issues:	• In RS partial sleep mode will RS still try to recieve MAP? o RS will still send out control information. • How is sleep window determined? o It is controlled by BS and is dependent on the sleep windows of the MSs that an RS is serving. • In 802.16e, an MS can always transmit when it wants to come out of sleep. If the RS is asleep, the MS may transmit outside of RS listening window. How can RS and MS sleep be synchronized? • Is there a better solution for RS power saving and interference reduction besides reusing the sleep mode as defined in 802.16e?
Action Items:	• Proponent of 7_066r2 to respond to the question regarding coordination of RS and MS sleep on the [MOB Adhoc] email list.

Number:	Comment:	Title:	Category:	Sub Category:	Status:
7_262r1	L119	MS Idle Mode in Relay System	Mobility management	Sleep/idle mode	Deferred

Area:	• RS support for Idle mode
Summary:	• RS relays DREG-REQ/CMD messages between MS and MR-BS for MS Idle Mode Initiation and relays RNG-REQ/RSP messages between MS and MR-BS for MS Network Re-entry from Idle Mode and for MS Location Update. For paging MR-BS shall provide MS paging information to RS.
Dependencies:	• Possibly 7_004.
Questions/ Issues:	• Proponent should look at 7_004 (accepted in session #48) to see if there are dependencies with this contribution. • More details are needed about the new TLV required for the MR-BS to provide

	MS paging information to RS.
Action Items:	• Proponent to look at 7_004 to see if there are dependencies with this contribution. • Proponent to upload revision with details about the new TLV required for the MR-BS to provide MS paging information to RS.

3. Review of the status of the open topics to be considered by the ad-hoc and determination of the next steps.
   - See Action Item review below.

4. Identification/discussion of any new topics to be considered by the ad-hoc to complete the baseline.
   - It was strongly stated by one participant that the mobility management adhoc should also treat other contributions in the Mobility Management area that were deferred in session #48.
   - Action Item: To address this, the adhoc chair and vice chair will consult with the 802.16j leadership, consider the opinions of the other group members, and consider the amount of time available after the initial contributions are addressed.

5. Review of action items

Subject:	Action Item
7_205	• Proponent of 7_205 to provide motivation for the acknowledgement for the MOB_SLP_RSP case on the [MOB Adhoc] email list. • Proponent of 7_205 to provide sequence diagrams for the sleep scenarios on the [MOB Adhoc] email list.
7_010r6	• All to discuss on the [MOB Adhoc] email list their views on whether this solution is needed if RS can snoop MS messages.
7_066r2	• Proponent of 7_066r2 to respond to the question regarding coordination of RS and MS sleep on the [MOB Adhoc] email list.
7_262r1	• Proponent to look at 7_004 to see if there are dependencies with this contribution. • Proponent to upload revision with details about the new TLV required for the MR-BS to provide MS paging information to RS.
Consideration of other contributions	• The adhoc chair and vice chair will consult with the 802.16j leadership, consider the opinions of the other group members, and consider the amount of time available after the initial contributions are addressed.

6. Plan for the next ad-hoc meeting

   - The next meeting will be planned after April 6.