P802.16p to RevCom: Report for Conditional Approval

20 July 2012

Rules: OM (2012-06-04) Clause 13

motions requesting conditional approval to forward when the prior ballot has closed shall be accompanied by:

- Date the ballot closed
- Vote tally including Approve, Disapprove and Abstain votes
- Comments that support the remaining disapprove votes and Working Group responses.
- Schedule for recirculation ballot and resolution meeting.

Date the ballot closed

Stage	Open	Close
WG Sponsor Ballot	07 February	08 March
EC Conditional Approval	16 March	
WG Sponsor Ballot Recirc #1	05 April	03 May
WG Sponsor Ballot Recirc #2	04 June	19 June

Vote tally including Approve, Disapprove and Abstain votes

114 Approve (98%)

- 2 Disapprove with comment
- 3 Abstain
- Return ratio requirement met: 80%

Comment resolution

	Disapprove Comments	Disapprove Comments in ballot round not yet satisfied	Disapprove Voters with comment in ballot round	Disapprove Voters with comment (total)
SB	1	1	1	1
SB recirc #1	1	1	1	1
SB recirc #2	8	8	1	2

Comments that support the remaining disapprove votes and Working Group responses

- See Following:

Comment #	Name	Vote	Category	Page	Subclause	Line
i-1	Murias, Ronald	Disapprove	Technical	15	6.3.9.5.1	28

Comment **Disposition Status**

In the baseline document, 6.3.9.5.1, "If the SS does not receive a response, the SS shall resend the RNG-REQ at the next appropriate initial ranging transmission opportunity and adjust its power level."
The large number of devices involved dramatically increase the likelihood of collision and therefore unnecessary power increase on re-transmission. The SS/MS/AMS needs to know whether the failure was due to lack of power or to collisions so that it only increases transmit power on retries when absolutely necessary. Rejected

Proposed Change

Include a broadcast message from the BS indicating that a collision has occurred. This will allow MSs to perform backoff without adjusting transmit power.

Disposition Detail

Reason: The commenter does not provide a complete remedy.

Comment #	Name	Vote	Category	Page	Subclause	Line
r01-1	Murias, Ronald	Disapprove	Technical	15	6.3.9.5.1	63

Comment **Disposition Status**

I am dissatisfied with the resolution to comment i-1.In the baseline document, 6.3.9.5.1, "If the SS does not receive a response, the SS shall resend the RNG-REQ at the next appropriate initial ranging transmission opportunity and adjust its power level. "The large number of devices involved dramatically increase the likelihood of collision and therefore unnecessary power increase on re-transmission. The SS/MS/AMS needs to know whether the failure was due to lack of power or to collisions so that it only increases transmit power on retries when absolutely necessary. The comment was rejected for lack of a complete remedy. A proposed remedy is provided with this comment. Rejected

Proposed Change

Include a broadcast message from the BS indicating that it has detected energy but was unable to decode a message. This will allow MSs to perform backoff without adjusting transmit power. Proposed text: If the SS does not receive a ranging response from the BS and it detects a broadcast message from the BS indicating that a collision has occurred on the same ranging opportunity as the SS last used, it may assume that its ranging code has collided with ranging codes from one or more other SSs. In this case, the SS randomly selects a new code and ranging opportunity and it may decide not to increase transmit power. If the SS does not receive a RNG-RSP from the BS and it does not receive the broadcast RNG-NAK message, the SS may decide not to increase power if that SS has knowledge that it is a fixed location device.
Proposed message: RNG-NAK

Syntax	Size	Notes
RNG-NAK_Message_Format() {		
Frame	4	Frame that contained the detected collision(s)
Ranging Opportunity	??	Ranging opportunity in the frame that contained the collisions
}		

Disposition Detail

Reason: The receiver has two thresholds. One is detection threshold (above noise floor) and Second is decoding threshold (this is higher than the detection threshold).
Case 1:- If there is collision and both the signals are received below the decoding threshold then also receiver cannot be sure of whether it was collision or was it a single signal
Case 2:- If there is collision and both signals are received above the decoding threshold and then the receiver applies correlation to separate the received signals and the signal levels after correlation is below the decoding threshold then the receiver can deduce that collision has occurred but cannot apply the proposed algorithm as transmission power needs to be increased
Case 3:- If there is collision and both signals are received above the decoding threshold and then the receiver applies correlation to separate the received signals and the signal levels after correlation is also above the decoding threshold. This is addressed by existing ranging procedure.

Which case the proposal is meant for is not clear.

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-1	Rolfe, Benjamin	Disapprove	Technical	4	6.3.1	57

Comment

Where is "individual location update" procedure is defined. I don't find it here or in the base standard (though given that it isn't entirely clear what the base standard is at this point, that may be why I could not find it - but I used IEEE P802.16Rev3/D6_Apr 2012)

Disposition Status

Revised

Proposed Change

Add cross-reference to where teh procuedre

Disposition Detail

'Individual location update' itself is not defined in the current draft. I think the intent of 'individual location update' is to clarify that the paging message transmitted in the next paging cycle shall include the MS's individual identifier (i.e., MAC address hash) instead of group identifier (i.e., M2MCID).Remedy: Edit as follows:If the BS does not receive an acknowledgement from some of the M2M devices, it may trigger <delete>individual</delete> location update in the next paging cycle of those M2M devices <insert>by sending MOB_PAG-ADV message containing MS MAC Address hash</insert> and it may send a RNG-RSP message containing the new M2MCID to each of them during the <delete>individual</delete> location update procedure.

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-2	Rolfe, Benjamin	Disapprove	Technical	4	6.3.1	57

Comment **Disposition Status**

Where is "individual location update" procedure is defined. I don't find it here or in the base standard (though given that it isn't entirely clear what the base standard is at this point, that may be more... Revised

Proposed Change

Add a cross reference to where the individual location update procdure is defined in the base standard or define what the procedure is in this amendment.

Disposition Detail

'Individual location update' itself is not defined in the current draft. I think the intent of 'individual location update' is to clarify that the paging message transmitted in the next paging cycle shall include the MS's individual identifier (i.e., MAC address hash) instead of group identifier (i.e., M2MCID).Remedy: Edit as follows:If the BS does not receive an acknowledgement from some of the M2M devices, it may trigger <delete>individual</delete> location update in the next paging cycle of those M2M devices <insert>by sending MOB_PAG-ADV message containing MS MAC Address hash</insert> and it may send a RNG-RSP message containing the new M2MCID to each of them during the <delete>individual</delete> location update procedure.

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-3	Rolfe, Benjamin	Disapprove	Editorial	8	6.3.2.3.5	18

Comment **Disposition Status**

The editiing instruction isn't very good. It should "the paragraph" makes the user work harder than necessary to figure out what is being modified as this is actually the 15th paragraph of the sub-clause. Revised

Proposed Change

Follow IEEE-SA standards practices or editing instructions and specify where in the subclause the text being modified appears, so the SPB trying to use this standard has a reasonable chance of understanding what is being amended. NOTE: This can be referred to the IEEE professional editors

Disposition Detail

Bring request to the attention of IEEE professional editor.

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-4	Rolfe, Benjamin	Disapprove	General	8	6.3.2.3.5	52

Comment **Disposition Status**

Change the paragraph as indicated doesn't make it easy to figure out what paragraph is being changed. Revised

Proposed Change

Fix the editing instruction before publication note: can be passed to IEEE professional editors

Disposition Detail

Bring request to the attention of IEEE professional editor.

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-5	Rolfe, Benjamin	Disapprove	General	4	6	18

Comment **Disposition Status**

And numerous places: M2MCID achronym is used but not added to clause 4. Revised

Proposed Change

Either add M2MCID to clause 4 or replace every instance of M2MCID with "The M2M multicast connection ID" in the amendment

Disposition Detail

Remedy: Insert the following texts on page 3, line 214:

Abbreviations and acronyms

Insert the following acronyms in alphabetical order

M2MCID: M2M multicast connection identifier
M2M: Machine-to-machine

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-6	Rolfe, Benjamin	Disapprove	General	0	0	0

Comment **Disposition Status**

The achronym M2M is used many times but not provded in clasue 4 of teh base stanard or by this amendment. Revised

Proposed Change

Add achronyms to cluase 4 to be consistent with the base standard.

Disposition Detail

Remedy: Insert the following texts on page 3, line 214:

Abbreviations and acronyms

Insert the following acronyms in alphabetical order

M2MCID: M2M multicast connection identifier
M2M: Machine-to-machine

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-7	Rolfe, Benjamin	Disapprove	Technical	24	6.3.36	20

Comment

to be consistent with the base standard replace "T3 timer" with "Ranging response reception timeout (paramter T3 in table 655)" at first reference, and use "Ranging response reception timeout" where you have "T3 timer".

Disposition Status

Rejected

Proposed Change

Add achronyms to cluase 4 to be consistent with the base standard.

Disposition Detail

Timer T3 is defined in the baseline standard and is called "T3 timer ". Please, refer to 6.3.10.3.1.2 and Table 655 in IEEE P802.16Rev3/D6_Apr2012.

Comment #	Name	Vote	Category	Page	Subclause	Line
r02-8	Rolfe, Benjamin	Disapprove	Technical	41	11.17.5	18

Comment

You use "M2MCID" as a parameter name here but elsewhere you use it as an achronyme for "The M2M multicast connection ID" in clause 6. Clearly the two are not the same and this leads to confusion everywhere else M2MCID is used as it is not clear which meaning is intended - a field in a TLV (which may contain an identifier value) or the normative function of a stream identifier.

Disposition Status

Revised

Proposed Change

Use distinct names.

Disposition Detail

M2MCID is defined as an identifier used to indicate a DL multicast flow or M2M device group associated with the DL multicast flow, and it is delivered to an M2M device as a content of M2MCID TLV in MOB_PAG-ADV message or M2MCID Update TLV in RNG-RSP message. So, the meaning of M2MCID is same as value included in M2MCID TLV or M2MCID update TLV. We would like to propose some modifications to clarify it. In our modifications, 'M2MCID' is used to indicate a normal ID or value included in M2MCID TLV and M2MCID update TLV and 'M2MCID TLV' and 'M2M update TLV' are used to indicate a parameter itself included in MAC control message.
Remedy #1: Change texts on page 4, line 40 as follows: When the M2M device performs the timer based location update, if the BS needs to update the M2MCID of M2M device, the BS may send a RNG-RSP message with <insert>an M2MCID Update TLV which contains</insert> a new M2MCID <insert>value</insert> in response to the RNG-REQ message. A BS may use the MOB_PAG-ADV message to indicate the update of the M2MCID and its new value to all the M2M devices in a group. When an idle mode M2M device that belongs to the M2M device group (identified by its M2MCID) receives a paging message containing an M2MCID <insert>TLV</insert>identifying one of its service flows and an Action Code TLV with value set to 0b11, this M2M device shall update the M2MCID based on the value indicated by M2MCID Re-assignment TLV (see 11.17.5).After receiving the updated M2MCID value, the M2M device shall send an acknowledgement (ACK) to the BS. If the BS does not receive an acknowledgement from some of the M2M devices, it may trigger individual location update in the next paging cycle of those M2M devices and it may send a RNG-RSP message <insert>with an M2MCID Update TLV</insert>containing the new M2MCID to each of them during the individual location update procedure.
Remedy #2: Change texts on page 17, line 49 as follows: If the M2M network access type TLV is set to '0b00', the M2M device does not need to send initial ranging code. When the M2M device receives group paging message (i.e., the MOB_PAG-ADV with M2MCID <insert>TLV</insert>) and M2M network access type TLV (i.e., 0: Resource allocation for RNG-REQ), it starts to monitor the UL-MAP IE containing a Fast Ranging IE to obtain the resource of RNG-REQ message at 'UL MAP start offset for RNG-REQ' during the 'Resource monitor timer'. 'Resource monitor timer' starts in the frame where the M2M device expects to receive the Fast Ranging IE. If the M2M device does not decode the Fast Ranging IE until the expiration of the 'Resource monitor timer', it performs ranging for network re-entry using the ranging resources defined as specified in 6.3.10.3.

Schedule for recirculation ballot and resolution meeting

- Recirculation #3: 15 day, stared 17 July 2012
- Comment Resolution Teleconference: 6 August 2012 (if necessary)
- Confirmation Ballot (if necessary): 15 day, beginning approximately August 13, 2012

802.16 WG Motion

802.16 Opening Plenary: 2012-07-16

Motion: To request Conditional Approval from the IEEE 802 Executive Committee to forward the IEEE P802.16p Draft to RevCom

- Moved by Jaesun Cha
- Seconded: Hyunjeong Kang
- Result: 21 / 0 / 0

LMSC Motion

- To grant conditional approval, per Clause 13 of the IEEE 802 Operations Manual, to forward P802.16p to RevCom
- Moved:
- Seconded:
- Approve:
- Disapprove:
- Abstain: