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Title	**On MR_LOC-REQ/RSP messages**
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Re:	This is in response for call for comments P802.16j/D1
Abstract	Some clarifications for the MR_LOC_REQ/RSP
Purpose	Review and adopt
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On MR_LOC-REQ/RSP messages

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Introduction

The MR_LOC-REQ/RSP messages in P802.16j/D1 document can be optimized while offering the same functionality.

As described in section 6.3.2.3.69.1 on p. 45, the MR_LOC-REQ message can be used both by the MR-BS and by the RS:

- When MR-BS sends this message to RS, the RS provides only its position, and this report can be set to be periodically or not;
- When the RS sends this message to MR-BS it can request position of other RSs that are identified in the message.

It is apparent that based on the originator of the message, the message content can be easily created as provided in the specification changes. This proposed message simplifies the current one.

A similar optimization can be applied to MR_LOC-RSP message.

Specification changes

[Change the Table 183h in section 6.3.2.3.69.1 as following]

Syntax	Size	Notes
MR_LOC-REQ_ Message_Format() {	-	-
Management Message Type = 74	8 bits	-
~~Report Mode~~	~~2 bits~~	~~0b00: Once~~ ~~0b01: Periodic report~~ ~~0b10~11: reserved~~
~~Neighbor Location Req Flag~~	~~1 bit~~	~~0b0: Location request of the receiving RS only~~ ~~0b1: Request message contains location request for neighboring access stations~~
if(~~Report Mode = 0b01~~MR-BS sends to RS) {	-	~~Available when the value of Report Mode is set to 0b01~~. Message send by the MR-BS
Report period	12 bits	Report period in units of frame, ~~a value between 0 to 4095~~ corresponding to a range of 1 frame to 4095~~6~~ frames. The value of 0 cancels the periodic reporting.
Reserved	4 bits	Shall be set to zero
}	-	-
If (~~Neighbor Location Req Flag != 0~~ RS sends to MR-BS) {	-	~~If this message is transmitted by an RS to MR-BS~~Message send by the RS
N_RS	8 bits	Number of neighboring stations for which the RS wants to know the location information.
For (j=0;j<N_RS; j++) {	-	-
~~RSID~~Preamble index	~~4~~8 bits	The ~~48 bit MAC address~~preamble index of the neighboring station ~~(BS or RS)~~ whose location is requested.~~.~~
}	-	-
}	-	-

Syntax	Size	Notes
~~Padding~~	~~*variable*~~	~~Padding bits to ensure byte aligned.~~
TLV Encoded Message	*variable*	TLV Encoded Message
}	-	-

The following parameters shall be included in the MR_LOC_REQ message:

~~Report mode~~

~~Action code for an RS's report of location information:~~

~~0b0: The RS only sends a single response to the location request message.~~

~~0b1: The RS reports the location periodically~~

~~Neighbor Location Req Flag~~

~~Flag, when set, indicates that this message contains a request for the location of neighboring access stations.~~

~~The flag is set to 0 by the MR-BS when requesting the location of the receiving RS~~

~~The flag is set to 1 by the RS when requesting the location of the neighboring stations from the MR-BS.~~

[Change the Table 183i in section 6.3.2.3.69.2 as following]

Syntax	Size	Notes
MR_LOC-RSP_ Message_Format() {	-	-
Management Message Type = 75	8 bits	-
~~Report Mode~~	~~2 bits~~	~~0b00: Once~~ ~~0b01: Periodic report~~ ~~0b10~11: reserved~~
~~Neighbor Location Req Flag~~	~~1 bit~~	~~0b0: Location request of the receiving RS only~~ ~~0b1: Request message contains location request for neighboring access stations~~
if (~~Neighbor Location Req Flag == 0)~~RS responds to MR-BS) {	-	~~If t~~This message is transmitted by an RS to MR-BS. See MR_LOC-REQ.
LLA_IE()	64 bits	Specifies the location of relay station in LLA format defined in section 6.3.2.3.62.3.
} ~~else {~~	-	~~If this message is transmitted by an MR-BS to RS~~
if (MR-BS responds to RS){		This message is transmitted by MR-BS to RS. See MR_LOC-REQ.
N_RS	8 bits	Number of stations whose location information is included in the current MR_–LOC-RSP message.
for (j=0;j<N_RS;j++) {	-	-
~~RSID~~Preamble_index	~~4~~8 bits	The ~~48 bit MAC address~~preamble index of the neighboring station ~~(BS or RS)~~ whose position was requested.
LLA_IE()	64 bits	Specifies the location of neighbor access station in LLA format defined in section 6.3.2.3.62.3.
}	-	-

}	-	-
~~Padding~~	~~*variable*~~	~~Padding bits to ensure byte aligned.~~
TLV Encoded Message	*variable*	TLV Encoded Message
}	-	-

The following parameters shall be included in the MR_LOC_RSP message:

~~Report Mode~~

~~Action code for an RS's report of location information:~~

~~The RS only sends a single response to the location request message.~~

~~The RS reports the location periodically~~

~~Neighbor Location Req Flag~~

~~Flag, when set, indicates that this message contains a response for the location of neighboring access stations.~~

~~The flag is set to 0 by the RS when responding to the location request from the MR-BS.~~

~~The flag is set to 1 by the MR-BS when responding to the location request from the RS about the neighboring stations.~~