Timing Compensation of Sleep Mode in MR

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Purpose:

Discuss and adopt proposed text and message format

Timing Compensation of Sleep Mode in MR

1. Assumptions

- Non-transparent RS system
- Processing delay existing in RS. RS may not relay MAC PDU within current frame.
- RS and MR-BS are synchronized, and have same frame number

2. Problem Description

-- Because of message processing delay in RS, the sleep-mode MS may miss messages such as TRF-IND at the pre-notified timing.

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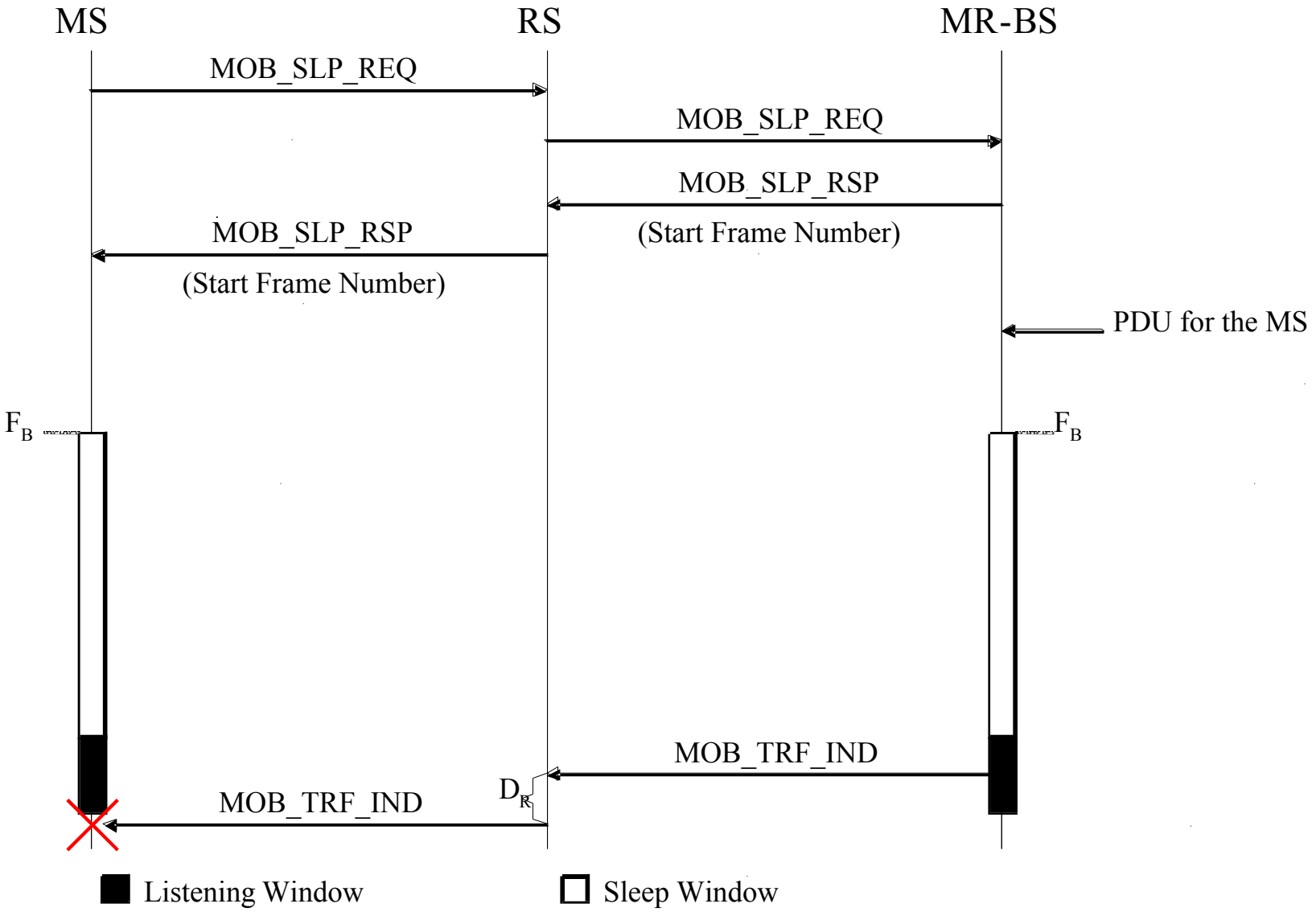

D_R : Relay processing delay of RS
F_B : The beginning frame of Sleep Window

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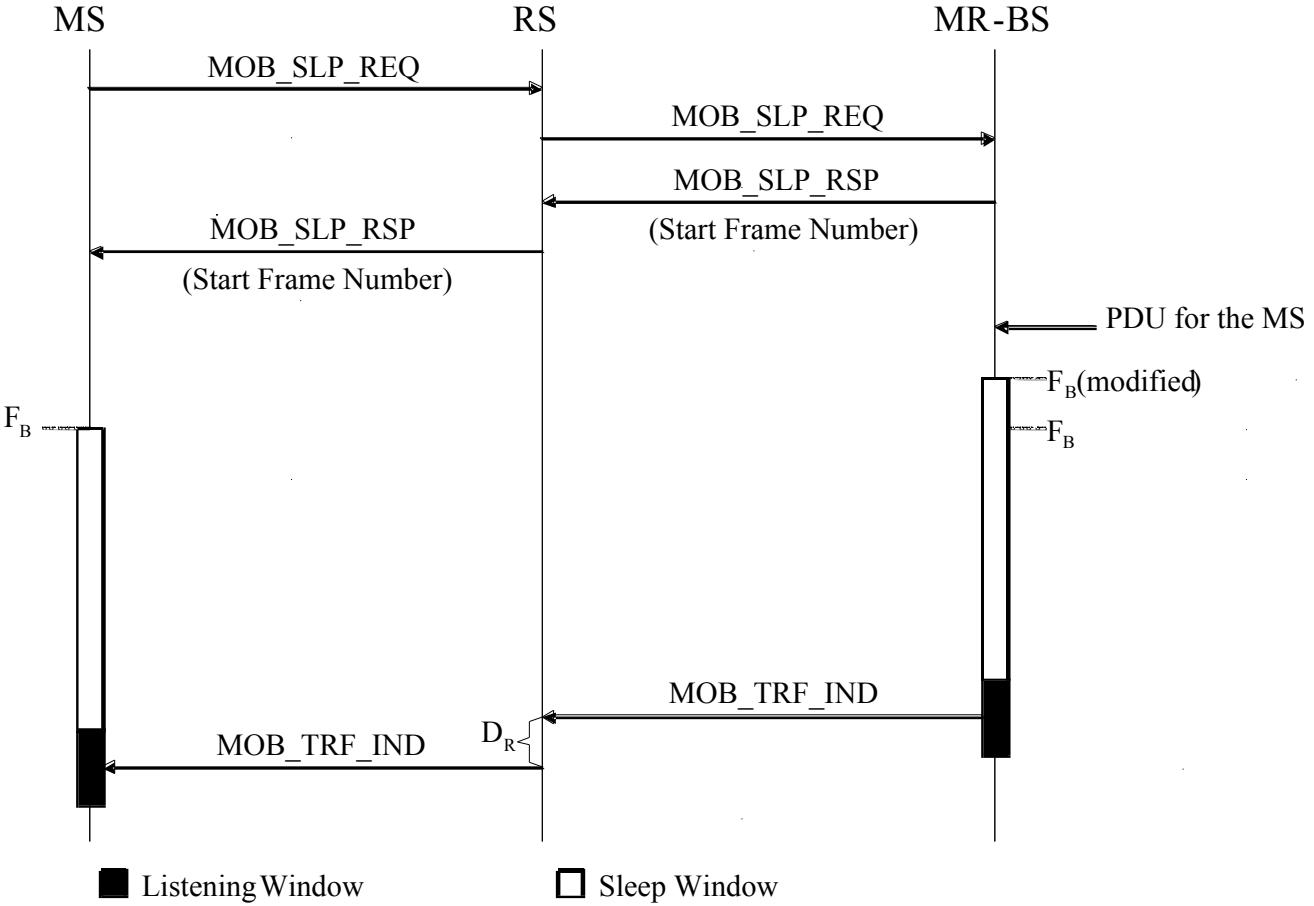
3. Compensation Method

- The delay in RS will be reported to MR-BS as a capability parameter of SBC-REQ message
- MR-BS broadcast the MOB_TRF-IND over R-DL D_R frame earlier (D_R is the delay in RS)



D_R : Relay processing delay of RS
F_B : The beginning frame of Sleep Window
F_B(modified):Modified beginning frame of Sleep Window

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4. Benefits

- Guarantee the sleep-mode MS receiving messages at pre-notified time in the presence of RS delay

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Specific text changes

Insert the following text at the end of 6.3.21.2:
Insert the following text at the end of 6.3.21.3:
Insert the following text at the end of 6.3.21.4:

For MR, to guarantee the sleep-mode MS receiving traffic indication in time in the presence of processing delay of RS, which is D_R, the MR-BS may transmit MOB_TRF-IND twice over R-DL and access link separately. MR-BS sends MOB_TRF-IND over the R-DL as a pre-transmission DR frame earlier than the normal MOB_TRF-IND transmission time. MR-BS may wait for D_R frames, and then sends MOB_TRF-IND again over the access link. The RS delay, D_R, is given to MR-BS as a capability parameter of SBC-REQ message.