

Discussion on R-zone/R-MAP and Frame Structure for MMR

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Purpose:

To introduce the terminologies of R-Frame, R-zone and R-MAP

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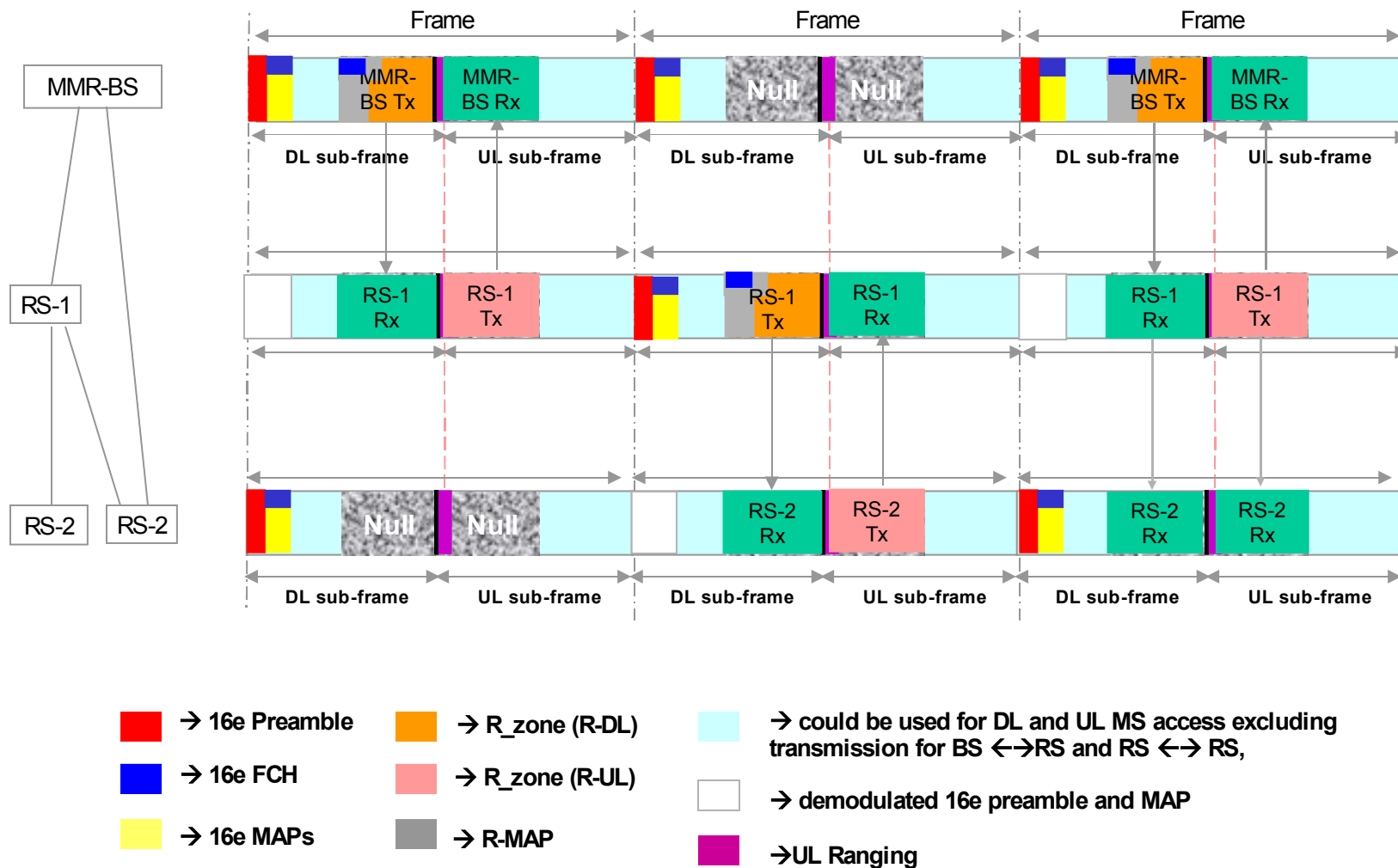
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Introduction and Background

- Based on IEEE802.16j PAR, the new node RS is introduced and new function/capability is added for MMR-BS without modification of MS, in order to retain the backward compatibility,
- We define the following:
 - Frame structure that enables the relay \rightarrow MMR-frame,
 - Relay zone \rightarrow R-zone
 - Relay zone MAP \rightarrow R-MAP

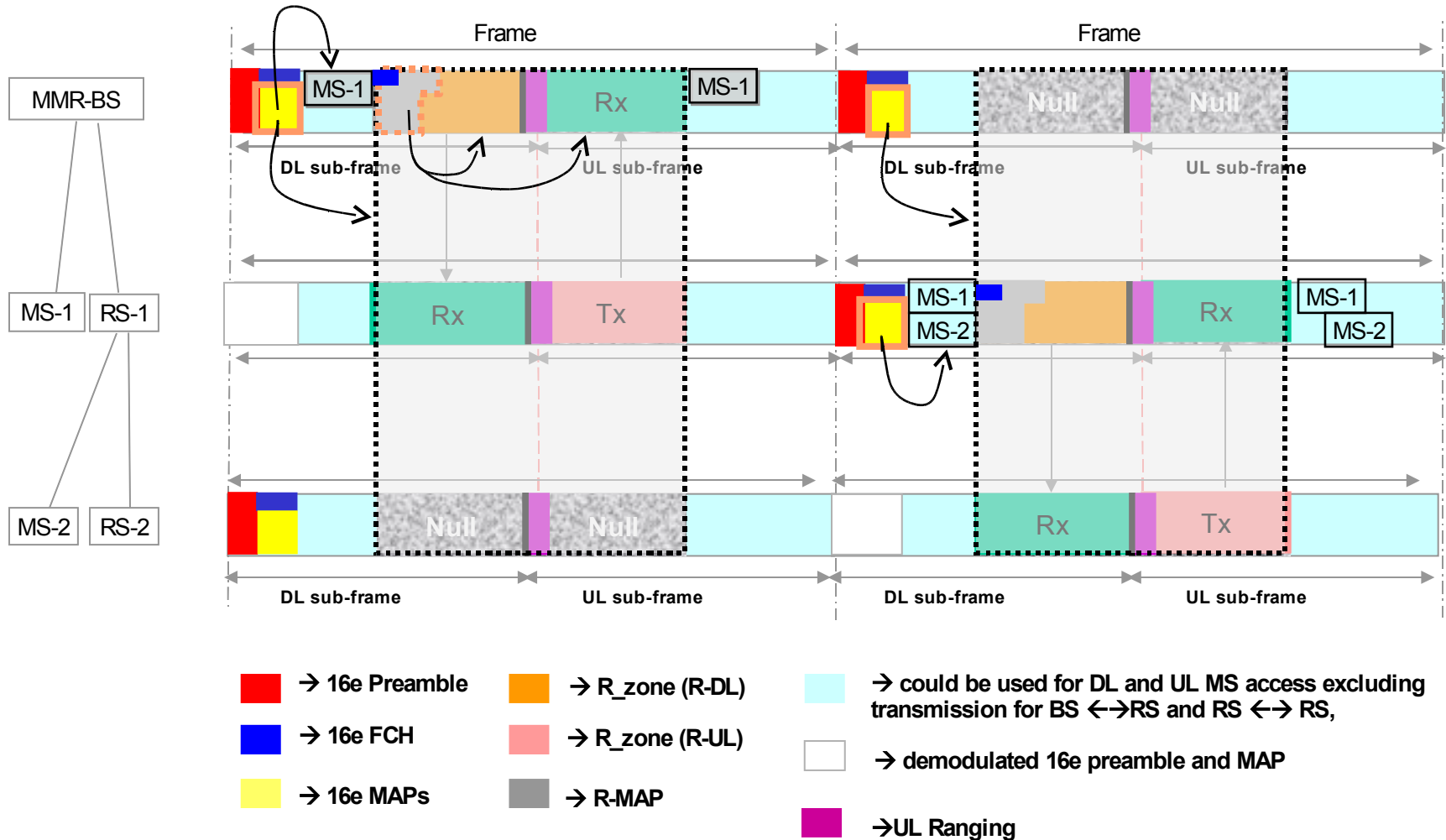
MMR Frame Structure Example (3 hops)

- Single carrier and single radio RS case



R-zone and R-MAP Example (3 hops)

- Each R-zone is associated with a R-MAP, R-zone can be dynamically allocated and de-allocated by MMR-BS



Summary

- MMR-Frame is introduced to support the mapping of R-zone which maintain the backward compatibility based on PAR
- 16e MAP_IE is reused to support the links
 - MMR-BS \leftrightarrow MS
 - RS \leftrightarrow MS
 - No impact on MS
- R-zone is introduced to support dedicated links for
 - MMR-BS \leftrightarrow RS
 - RS \leftrightarrow RS
 - Serving MMR-BS and Serving RS are required to
 - transmit 802.16e preamble
 - transmit 802.16e FCH and MAP
- R-MAP is introduced for RS related resource assignment

Text Proposal

- MMR-Frame
 - “The frame support the links between MMR-BS and RS and between RSs”
- R-Zone
 - “The OFDMA resource dedicated to the links between MMR-BS and RS and between RSs communications”
- R-MAP
 - “The MAP dedicated to the R-zone resource allocation”