MAC-PDU Reconstruction at RS

IEEE 802.16 Presentation Submission Template (Rev. 8.3)

Document Number:

IEEE S802.16j-07/022

Date Submitted:

2007-01-14

Source:

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Venue:

IEEE 802.16 Session #47, London, UK

Base Document:

IEEE C802.16j-07/022

Purpose:

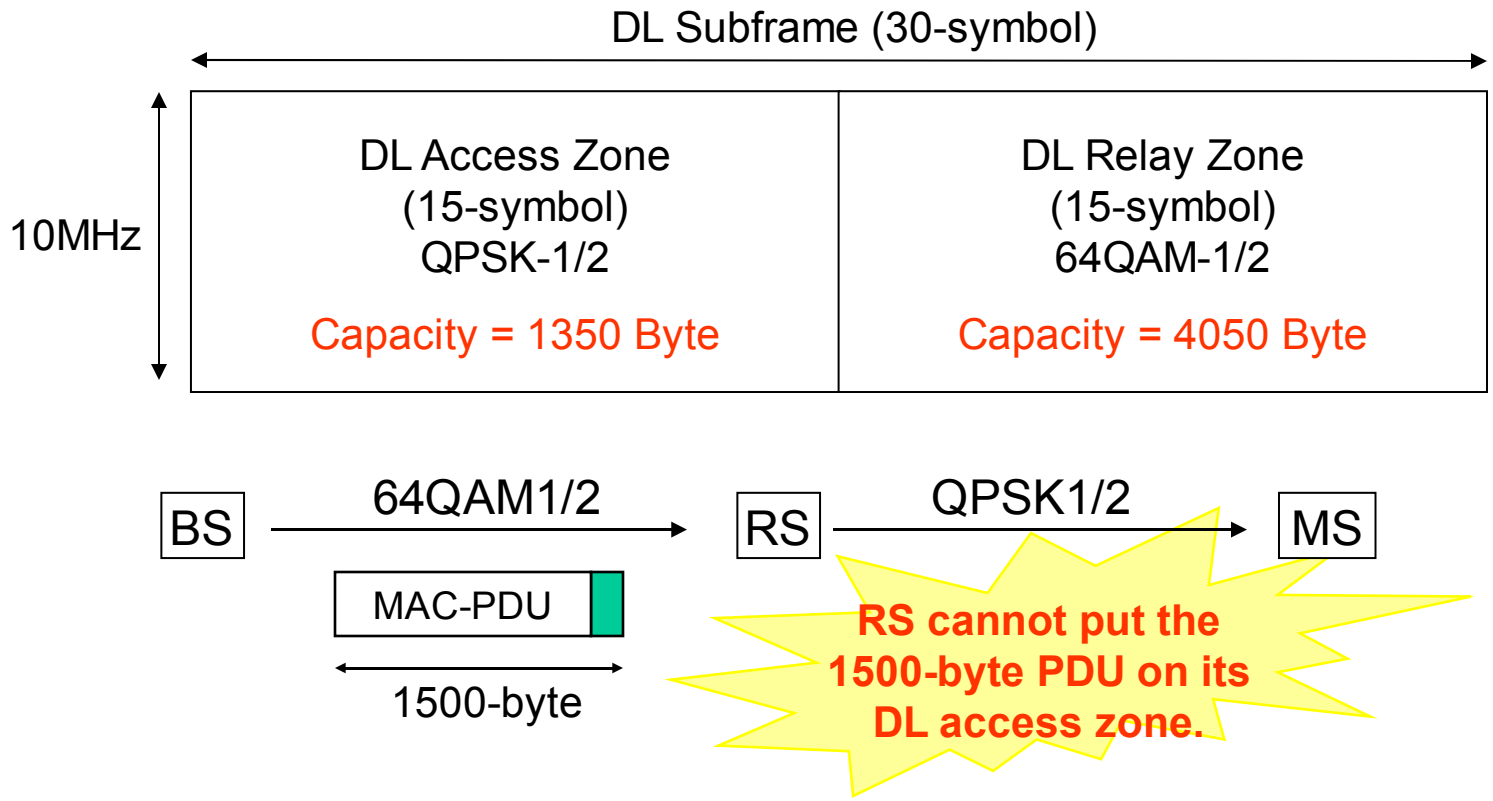
For discussion and approval of inclusion of the proposed text into the P802.16j baseline document.

Introduction

- This contribution proposes fragmentation and packing at RS support as an option.
- In order for RS to fragment/pack PDUs, it need to know MS TEK to decrypt/encrypt PDUs. MS TEK transfer is proposed in #07_149.
- Related sections in the standard :
  - 6.3.3.3 Fragmentation
  - 6.3.3.4 Packing

Proposal

- In a certain link condition, RS needs to fragment received PDUs to relay them on its access link.
- An example is shown below.



Proposed Text

Add the following words at the end of the last sentence in the first paragraph in 6.3.3.3: (Fragmentation):

6.3.3.3 Fragmentation

Fragmentation is the process by which a MAC SDU is divided into one or more MAC PDUs. This process is undertaken to allow efficient use of available bandwidth relative to the QoS requirements of a connection's service flow. Capabilities of fragmentation and reassembly are mandatory for BS and SS/MS, and optional for RS.

Add the following words at the end of the last sentence in the first paragraph in 6.3.3.4 (Packing):

6.3.3.4 Packing

If packing is turned on for a connection, the MAC may pack multiple MAC SDUs into a single MAC PDU. Packing makes use of the connection attribute indicating whether the connection carries fixed-length or variable-length packets. The transmitting side has full discretion whether or not to pack a group of MAC- SDUs in a single MAC PDU. The capability of unpacking is mandatory for BS and SS/MS. The capabilities of packing and unpacking are optional for RS.