Rate Based Bandwidth Request Mechanism

IEEE 802.16 Presentation Submission Template (Rev. 8.3)

Document Number:
   IEEE S802.16j-06/147

Date Submitted:
   2006-11-09

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Venue:
   IEEE 802.16 Session #46, Dallas, USA

Base Document:
   IEEE C802.16j-06/147 and URL <http://ieee802.org/16/… C80216j-06_147.pdf>.

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

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Introduction

• Problems of existing bandwidth request (BR) mechanisms in MR networks
  – Heavy control overhead of BR headers over relay link in MR networks
  – Long latency as BR traverses multi-hops

• Solution: rate-based BR (RBR)
  – RS sends the average data rate to MR-BS
  – To reduce the number of BR headers sent over relay links
How to USE RBR?

• Using RBR message is to **reduce** but not to eliminate the number of BR headers sent on the relay links
• RS may send BR headers to ask MR-BS to grant more resource in addition to RBR
• Aggregation of connections is required for burst traffic to decrease the fluctuation of requested data rate
• RBR is good for near constant rate traffic (rtPS, nrtPR, ertPS)

➢ **RBR works with proposals** (e.g. C80216j-06/125,180,189,232) in a complementary manner
  ➢ Those proposals do not intend to reduce the number of BR headers requesting for data packets on the relay links