



## NETWORK ADAPTIVE RATE CONTROL FOR TRANSCODER (WedPmPO1)

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### ★ Abstract :

In this paper, we propose a rate control scheme for MPEG video transcoder over the network which has a variable bandwidth. MPEG video transcoder can reduce the required bitrate by using re-quantization in the DCT domain. For video streaming service over the network, bitrate of a video stream needs to adjust dynamically to available bandwidth. We focus on the effect of congestion control on data-processing speed in transcoder. Here, the data-processing speed means the amount of processed data per unit time in transcoding. This effect can be used to estimate the available bandwidth without a special implementation on the network. First, we clarify the relation among the data-processing speed of the transcoder, the target bitrate for the transcoder, and the channel bandwidth. Next, we propose a dynamic rate control scheme based on the relation mentioned above. Finally, by simulating experiments, we show the effectiveness of the proposed scheme.