

ABSTRACT

In communication using TCP, since the transmission bandwidth is significantly influenced by RTT and discard rate, there was a problem that only the transmission bandwidth significantly lower than the contracted bandwidth could be obtained under the environment such as WAN causing large RTT, large hop number and many discarded segments.

There is provided an apparatus connected to a receiving side terminal having a means for feeding back to notify all discarded segments to an apparatus connected to a transmitting side terminal; a means for retransmitting the discarded segments fed back to be notified to the apparatus connected to the transmitting side terminal; and a means for controlling transmission bandwidth, based on retransmission bandwidth and discard bandwidth by the apparatus connected to the transmitting side terminal.