

ABSTRACT

For measuring a bandwidth at a timing suited to a transition of the congestion status of a communication network to be used, a client device 40 or an information distribution server 10 extracts, as a cutoff frequency, a highest frequency component among frequency components obtained by performing Fourier transform on transition data which indicates the transition of communication congestion traffic with respect to a time in a network 20. On the basis of the relationship between the error ratio and the number of measurement times in a cycle corresponding to the cutoff frequency, the client device 40 or the information distribution server 10 determines a minimum value of the number of measurement times that satisfy a given error ratio. The client device 40 or the information distribution server 10 sets each of a measurement cycle and a measurement time so as to satisfy both conditions of a maximum value in the measurement cycle determined on the basis of the cutoff frequency and the minimum value of the number of measurement times in the cycle corresponding to the cutoff frequency. The client device 40 or the information distribution server 10 measures a bandwidth of communication performed by using the network 20, on the basis of the set measurement cycle and measurement time.