CLAIMS

[Claim 1]

A communication status measurement device that is wirelessly connected to a public network and that communicates with a server connected to the public network through a communication channel determined in advance, comprising:

measurement means for repeatedly measuring a time since a dummy packet is transmitted to the server until an acknowledgement packet corresponding to the dummy packet is received;

pattern calculation means for calculating a pattern obtained by removing a component at frequencies more than a first frequency from a pattern of variations in a measured value measured by the measurement means;

RTT acquisition means for acquiring a round trip time, which is used to calculate an actual bandwidth of the communication channel, on a basis of the pattern calculated by the pattern calculation means; and

means for implementing a virtual private network in the communication status measurement device itself,

wherein the dummy packet is transmitted and the acknowledgement packet is received via the virtual private network and the public network.

[Claim 2]

The communication status measurement device according to claim 1, further comprising:

VPN connection means for connecting the communication status measurement device to the server over a virtual private network,

wherein the dummy packet is transmitted and the acknowledgement packet is received via the virtual private network.

[Claim 3]

The communication status measurement device according to claim 1 or claim 2, further comprising:

calculation means for calculating a pattern obtained by removing a component at frequencies less than a second frequency, which is a frequency that is equal to or more than the first frequency, from a pattern of variations in a measured value measured by the measurement means; and

modeling means for modeling a mode of variations in a noise component contained in the measured value measured by the measurement means on a basis of the pattern calculated by the calculation means.

[Claim 4]

A program that causes a computer that is wirelessly connected to a public network and that communicates with a server connected to the public network through a

communication channel determined in advance to function as:

measurement means for repeatedly measuring a time since a dummy packet is transmitted to the server until an acknowledgement packet corresponding to the dummy packet is received;

pattern calculation means for calculating a pattern obtained by removing a component at frequencies more than a first frequency from a pattern of variations in a measured value measured by the measurement means;

RTT acquisition means for acquiring a round trip time, which is used to calculate an actual bandwidth of the communication channel, on a basis of the pattern calculated by the pattern calculation means; and

means for implementing a virtual private network in the communication status measurement device itself,

wherein the dummy packet is transmitted and the acknowledgement packet is received via the virtual private network and the public network.