

ABSTRACT

According to an embodiment, a communication control device includes a plurality of communication systems connected in parallel between a first device and a network communication network, and a distribution controller. The distribution controller is provided between the first device or the network communication network and the communication systems, and configured to execute communication processing in a distributed manner by communication systems of the number corresponding to a processing load on data from the first device or the network communication network. The communication systems each include a controller configured to execute communication processing for transmitting, to a second communication control device connected between a second device and the network communication network, information obtained by encrypting information transmitted from the first device to the second device, and transmitting, to the first device, information obtained by decrypting information transmitted from the second device to the first device, using a common key determined by a mutual authentication process with the second communication control device using a secret key and a client certificate issued by a private authentication authority.