

ABSTRACT

According to an embodiment, a communication control device includes a first communication system connected between a first device and a network communication network, and a second communication system connected between the first device and the network communication network separately from the first communication system. The first communication system and the second communication system each include a controller. The controller executes communication in a first communication mode for transmitting, to a second communication control device, information obtained by encrypting information transmitted from the first device to the second device, and for 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 connected between the network communication network and the second device using a secret key and a client certificate issued by a private authentication authority. The controller executes switching such that one of the communication systems executes communication in the first communication mode, and when a problem is detected in the communication system that is executing communication in the first communication mode, the other communication system executes communication in the first communication mode.