Abstract

A first information processing apparatus 1, storing a service key and a pre-set function, requests the proper identification information from a second information processing apparatus 2, storing the proper identification information, a license key, version data indicating a version of the license key, and the above pre-set function, and applies the function to the identification information and the service key to generate the first intermediate key Km. The first information processing apparatus applies the function to the first intermediate key n times to generate a decision key Kmn and to transmit number of times data indicating the number of times of application of the function. The second information processing apparatus 2 applies the function to the license key (n – Gb) times to generate the second intermediate key Klic_n and to transmit the intermediate key information R as the information on the second intermediate key Klic_n. The first information processing apparatus authenticates the second information processing apparatus 2 based on the decision key Kmn and the intermediate key information R.