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YAMAMOTO et al.(10) **Pub. No.: US 2024/0214188 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **INFORMATION PROCESSING METHOD,
DEVICE, AND RECORDING MEDIUM**(52) **U.S. Cl.**
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Management Co., Ltd., Osaka (JP)**(57) **ABSTRACT**(72) Inventors: **Masaya YAMAMOTO, Kyoto (JP);
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The information processing method according to the present disclosure is for a device, and allows for sharing, between a home-appliance main microcontroller (13) and a communication module (11), a shared key that is an encryption key of a common-key cryptosystem for protecting a communication path (12) between the home-appliance main microcontroller (13) and the communication module (11). The information processing method includes: holding, by the home-appliance main microcontroller (13), a first shared key; detecting, by the communication module (11), a mismatch between a first message authentication code added to encrypted data obtained from the home-appliance main microcontroller (13) through the communication path and a second message authentication code calculated from the encrypted data; and when the mismatch is detected in the detecting, sharing the first shared key between the home-appliance main microcontroller (13) and the communication module (11) by the communication module (11) obtaining the first shared key from the home-appliance main microcontroller (13).

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