CLAIMS

1. An information processing device characterized by comprising a processor configured to:

detect start of a first application program in a user terminal, the first application program being used to perform a remote operation of a vehicle; and

transmit, in response to detecting the start of the first application program, an instruction signal that causes one or more electronic control units mounted on the vehicle to transition from a sleep state to an activated state to a communication terminal of the vehicle.

2. The information processing device according to claim 1, wherein:

the processor is configured to detect the start of the first application program based on a first signal transmitted from the user terminal to the information processing device; and

the first signal is transmitted from the user terminal to the information processing device when the first application program is started.

3. The information processing device according to claim 2, further comprising a storage unit configured to store information that indicates corresponding between the user terminal and the vehicle to each other,

wherein the processor is configured to:

specify the vehicle corresponded to the user terminal based on the information stored in the storage unit when the information processing device receives the first signal transmitted from the user terminal; and

transmit the instruction signal to the communication terminal of the specified vehicle.

4. The information processing device according to claim 3, wherein the processor is configured to transmit, after transmitting the instruction signal to the communication terminal and when the information processing device receives a second signal that requests

a remote operation of the vehicle from the user terminal, the second signal for requesting the remote operation of the vehicle to the communication terminal of the vehicle corresponded to the user terminal.

5. The information processing device according to any one of claims 1 to 4, wherein the one or more electronic control units are configured to include an electronic control unit that controls a power window actuator of the vehicle.

6. The information processing device according to any one of claims 1 to 5, wherein the one or more electronic control units are configured to include an electronic control unit that controls an air conditioning device of the vehicle.

7. The information processing device according to any one of claims 1 to 6, wherein the one or more electronic control units are configured to include an electronic control unit that controls a door lock actuator of the vehicle.

8. The information processing device according to any one of claims 1 to 7, wherein the one or more electronic control units are configured to include an electronic control unit that controls charge of a battery of the vehicle.

9. The information processing device according to any one of claims 1 to 8, wherein the one or more electronic control units are configured to include an electronic control unit that controls a hazard lamp of the vehicle.

10. The information processing device according to any one of claims 1 to 9, wherein the one or more electronic control units are configured to include an electronic control unit that controls an alarming horn of the vehicle.

11. An information processing system characterized by comprising:

a user terminal configured such that a first application program to be used to perform a remote operation of a vehicle is installed;

a server device configured to communicate with the user terminal; and

a communication terminal mounted on the vehicle and configured to communicate with the server device, wherein:

the user terminal is configured to transmit a first signal to the server device when the first application program is started;

the server device is configured to detect start of the first application program based on the first signal, and the server device is further configured to transmit an instruction signal that causes one or more electronic control units mounted on the vehicle to transition from a sleep state to an activated state to the communication terminal of the vehicle in response to detecting the start of the first application program; and

the communication terminal is configured to transmit a signal for causing the one or more electronic control units to transition from the sleep state to the activated state to the one or more electronic control units when the instruction signal is received.

12. The information processing system according to claim 11, wherein the server device is configured to further include a storage unit that stores information that indicates corresponding between the user terminal and the vehicle to each other, the server device being configured to:

specify the vehicle corresponded to the user terminal based on the information stored in the storage unit when the first signal is received; and

transmit the instruction signal to the communication terminal of the specified vehicle.

13. The information processing system according to claim 12, wherein the user terminal is configured to:

receive an operation by a user to request a remote operation of the vehicle after transmitting the first signal; and

transmit a second signal that requests the remote operation of the vehicle to the server device;

the server device is configured to transmit, upon receiving the second signal from the user terminal, the second signal for requesting the remote operation of the vehicle to the communication terminal of the vehicle corresponded to the user terminal; and

the communication terminal is configured to transmit, upon receiving the second signal, a signal that requests an operation corresponding to the remote operation to the one or more electronic control units.

14. The information processing system according to claim 13, wherein:

the remote operation requested by the user is an operation of a power window of the vehicle; and

the one or more electronic control units include an electronic control unit that controls a power window actuator of the vehicle.

15. The information processing system according to claim 13 or 14, wherein:

the remote operation requested by the user is an operation of an air conditioning device of the vehicle; and

the one or more electronic control units include an electronic control unit that controls the air conditioning device.

16. The information processing system according to any one of claims 13 to 15, wherein:

the remote operation requested by the user is an operation to lock or unlock a door of the vehicle; and

the one or more electronic control units include an electronic control unit that controls a door lock actuator of the vehicle.

17. The information processing system according to any one of claims 13 to 16, wherein:

the remote operation requested by the user is an operation to charge a battery of the vehicle; and

the one or more electronic control units include an electronic control unit that controls charge of the battery of the vehicle.

18. The information processing system according to any one of claims 13 to 17, wherein:

the remote operation requested by the user is an operation of a hazard lamp of the vehicle; and

the one or more electronic control units include an electronic control unit that controls the hazard lamp of the vehicle.

19. The information processing system according to any one of claims 13 to 18, wherein:

the remote operation requested by the user is an operation of an alarming horn of the vehicle; and

the one or more electronic control units include an electronic control unit that controls the alarming horn of the vehicle.

20. A user terminal configured to transmit, in response to detecting start of a first application program for performing a remote operation of a vehicle, an instruction signal to a communication terminal of the vehicle, the instruction signal causing one or more electronic control units mounted on the vehicle to transition from a sleep state to an activated state.