CLAIMS

What is claimed is:

1. A device for paying transportation fares, comprising a recharging module and a transportation fares payment module, wherein

the transportation fares payment module is configured to store a transportation fares amount of a user, perform a transportation fares deduction operation for the user with a transportation charging terminal when performing near field communication with the transportation charging terminal, and record a transportation fares amount of the user obtained after transportation fares are deducted; and

the recharging module is configured to perform near field communication with the transportation fares payment module to read the transportation fares amount recorded by the transportation fares payment module, and send a recharging request to a transaction server when i) the transportation fares amount is less than a specified threshold and ii) a recharging application is enabled, wherein the recharging module is applied to the recharging application in the device.

2. The device according to claim 1, wherein the device further comprises a first near field communication module and a second near field communication module; and

the transportation fares payment module is configured to perform near field communication with the recharging module by using the first near field communication module, and perform near field communication with the transportation charging terminal by using the second near field communication module.

3. The device according to claim 1 or 2, wherein the transportation fares payment module is a secure element (SE) chip.

4. The device according to claim 2, wherein the

recharging module performs the near field communication with the transportation fares payment module, and sends the recharging request when either one of the following conditions is met:

the transportation fares payment module performs the transportation fares deduction operation;

and

a current moment reaches a specified moment at which the transportation fares amount recorded by the transportation fares payment module is read.

5. The device according to claim 2 or 4, wherein the recharging module is further configured to:

obtain a transportation fares amount of the user after recharging from the transaction server, and send the transportation fares amount of the user after recharging to the transportation fares payment module by using the first near field communication module, so that the transportation fares payment module updates the transportation fares amount recorded by the transportation fares payment module.

6. The device according to claim 2, wherein the transportation fares payment module is further configured to:

record transaction information between the transportation fares payment module and the transportation charging terminal, and send the transaction information to the recharging module by using the first near field communication module; and

the recharging module is further configured to receive, by using the first near field communication module, the transaction information sent by the transportation fares payment module, and upload the transaction information to the transaction server.

7. A combination of devices for paying transportation fares, comprising a recharging device and a transportation fares payment device, wherein the recharging device comprises a recharging module, and the transportation fares payment device comprises a transportation fares payment module;

the transportation fares payment module is configured to store a transportation fares amount of a user, perform a transportation fares deduction operation for the user with a transportation charging terminal when performing near field communication with the transportation charging terminal, and record a transportation fares amount of the user obtained after transportation fares are deducted; and

the recharging module is configured to perform near field communication with the transportation fares payment module to read the transportation fares amount recorded by the transportation fares payment module, and send a recharging request to a transaction server when i) the transportation fares amount is less than a specified threshold and ii) a recharging application is enabled, wherein the recharging module is applied to the recharging application in the recharging device.

8. The device according to claim 7, wherein the transportation fares payment device further comprises a first near field communication module and a second near field communication module; and

the transportation fares payment module is configured to perform near field

communication with the recharging module by using the first near field communication module, and perform near field communication with the transportation charging terminal by using the second near field communication module.

9. The device according to claim 7 or 8, wherein

the recharging module performs the near field communication with the transportation fares payment module, and sends the recharging request when either of the following conditions is met:

the transportation fares payment module performs the transportation fares deduction operation;

and

a current moment reaches a specified moment at which the transportation fares amount recorded by the transportation fares payment module is read.

10. A system for paying transportation fares, comprising a transaction server and the device for paying transportation fares according to any one of claims 1 to 6, wherein

the device for paying transportation fares is configured to store a transportation fares amount of a user, perform a transportation fares deduction operation for the user with a transportation charging terminal when performing near field communication with the transportation charging terminal, and record a transportation fares amount of the user obtained after transportation fares are deducted, and is further configured to send a recharging request to the transaction server when the transportation fares amount recorded by the device for paying transportation fares is less than a specified threshold; and the transaction server is configured to receive the recharging request sent by the device for paying transportation fares, and perform a recharging operation for the recharging request.

11. The system according to claim 10, wherein the device for paying transportation fares is further configured to:

obtain a transportation fares amount of the user after recharging from the transaction server, and update the transportation fares amount recorded by the device for paying transportation fares to the transportation fares amount of the user after recharging.

12. The system according to claim 10, wherein the system further comprises a settlement server; and

the settlement server is configured to receive transaction information periodically uploaded by the transportation charging terminal, and is further configured to receive

recharging information of the user sent by the transaction server, and perform settlement based on the transaction information and the recharging information, wherein the transaction information comprises at least a time of each transaction, address information of each transaction, and an amount of each transaction.

13. A system for paying transportation fares, comprising a transaction server, a recharging device, and a transportation fares payment device, wherein

the transportation fares payment device is configured to store a transportation fares amount of a user, perform a transportation fares deduction operation for the user with a transportation charging terminal when performing near field communication with the transportation charging terminal, and record a transportation fares amount of the user obtained after transportation fares are deducted;

the recharging device comprises a recharging module and is configured to perform near field communication with the transportation fares payment device to read the transportation fares amount recorded by the transportation fares payment device, and send a recharging request to the transaction server when i) the transportation fares amount is less than a specified threshold and ii) a recharging application is enabled, wherein the recharging module is applied to the recharging application in the recharging device; and

the transaction server is configured to receive the recharging request sent by the recharging device, and perform a recharging operation for the recharging request.

14. A method for paying transportation fares, wherein the method comprises:

performing, by a transportation fares payment module, near field communication with a transportation charging terminal, and performing a transportation fares deduction operation for a user with the transportation charging terminal, wherein the transportation fares payment module stores a transportation fares amount of the user;

recording, by the transportation fares payment module, a transportation fares amount of the user obtained after transportation fares are deducted; and

performing, by a recharging module, near field communication with the transportation fares payment module to read the transportation fares amount recorded by the transportation fares payment module, and sending a recharging request to a transaction server when i) the transportation fares amount is less than a specified threshold and ii) a recharging application is enabled, wherein the recharging module is applied to the recharging application.

15. The method according to claim 14, wherein the method further comprises:

obtaining, by the recharging module, a transportation fares amount of the user after recharging from the transaction server, and sending the transportation fares amount of the user after recharging to the transportation fares payment module by using a first near field communication module; and

updating, by the transportation fares payment module based on the transportation fares amount of the user after recharging, the transportation fares amount recorded by the transportation fares payment module.