Claims

1. A payment method based on storage, comprising,

providing a service providing device bound to a user, wherein the service providing device service stores verification-comparison information or stores link information for retrieving the verification-comparison information; and further obtaining, by the service providing device connected to an interface provided for a mobile terminal, prestored content for executing a payment operation, wherein the prestored content includes a stored fund and/or a payment account; wherein the service providing device is always connected with the interface of the mobile terminal; or, the service providing device is connected with the interface of the mobile terminal when performing the payment operation; and verification is performed when the service providing device is connected to the mobile terminal or is performing a payment operation, the verification-comparison information is retrieved, and the verification-comparison information is checked and compared with verification information provided by the user or with verification information acquired from the user.

2. The method according to claim 1, wherein:

the obtaining prestored content includes any of the following manners:

extracting, by the service providing device, content prestored in the service providing device or the mobile terminal; with respect to the content prestored in the mobile terminal, extracting, by the service providing device, storage information of the content saved in the mobile terminal; initiating, by the service providing device, a hardware entity or an application of the mobile terminal, to extract the content prestored in the mobile terminal; or initiating, by the service providing device, an external device designated by the service providing device or the mobile terminal, and extracting, by the external device, the prestored content in the mobile terminal or the service providing device.

3. The method according to claim 2, wherein:

the prestored content obtained by the service providing device is provided to the mobile terminal or to a user.

4. The method according to claim 1, wherein:

the service providing device stores a code information parsing unit for parsing code information; and the information extracted from the parsing includes:

service information corresponding to the code information, and/or the prestored content.

5. The method according to claim 4, wherein:

a code parsing rule used in parsing the code information is matched with a preset coding rule used in generating the code information; the preset coding rule is used in generating corresponding code information based on the service information, or in generating corresponding coding information based on the service information and generating a coding medium corresponding to the code information.

6. The method according to claim 5, wherein:

the obtained prestored content corresponds to the coding medium; and the code information corresponding to the coding medium is extracted from parsing the prestored content.

7. The method according to claim 5, wherein:

the information extracted from the parsing instructs the service providing device to execute the payment operation.

8. The method according to claim 5, wherein:

the service providing device pre-stores a traffic service packet, the traffic service packet including a code parsing rule, and the information extracted from the parsing includes payment-related information; and the service providing device execute the payment operation based on the payment-related information, the stored fund, and/or the payment account.

9. The method according to claim 1, wherein:

the service providing device pre-stores a digital certificate, and after the user identity and the association between the mobile terminal and the digital certification are confirmed via the digital certificate, the service providing device is allowed to execute the payment operation

based on the stored fund and/or payment account.

10. The method according to claim 1, wherein:

the payment operation includes:

deducting an amount from the stored fund; or, payment is separated from settlement, wherein a to-be-paid amount is first recorded under the payment account, and after a collaborative background server is connected, settlement is performed under the payment account based on the recorded to-be-paid amount and the payment account.

11. The method according to claim 10, wherein:

the payment account is bound to the mobile terminal, or the user of the mobile terminal, or the service providing device; settlement under the payment account includes deducting an amount or creating a bill under the payment account.

12. The method according to claim 10, wherein:

settlement performed by the connected collaborative background server further includes settlement with a payee.

13. The method according to claim 10, wherein:

recording of the to-be-paid amount is regarded as payment success, and then a subsequent service is provided, wherein the settlement is performed when the collaborative background server is connected; or, recording of the to-be-paid amount and settling by the connected collaborative processing are regarded as payment success, and then the subsequent service is provided; wherein when the to-be-paid amount is recorded, the service providing device is in a network connected or offline state, and the mobile terminal is in a network connected or offline state; when performing settlement, at least one of the service providing device or the mobile terminal is in the network connected state, and is connected to the collaborative background server for settlement.

14. The method according to claim 10, wherein:

in the payment operation, when the stored fund is pre-deposited in the service providing device, the service providing device deducts the amount from the stored fund; wherein the stored fund is anonymous; or, the stored fund is bound to the mobile terminal, user of the mobile terminal, or the service providing device.

15. The method according to claim 14, wherein:

deducting from the stored fund is regarded as payment success, and then the subsequent service is provided; wherein upon deducting from the stored fund, the service providing device is in a network connected or offline state, and the mobile terminal is in a network connected or offline state.

16. The method according to claim 14, wherein:

the service providing device, or the mobile terminal, or the collaborative background server summarizes the amounts deducted from the stored fund; and the background server is connected with the service providing device or the mobile terminal.

17. The method according to claim 4, wherein:

after the parsing, the service providing device extracts a link address of the collaborative background server; wherein the link address is included in the service information extracted from the parsing, or included in the prestored content extracted from the service providing device or the mobile terminal after the parsing.

18. The method according to claim 17, wherein:

when a network connection is available, the service providing device extracts the prestored content from the collaborative background server; when a network connection is unavailable, the service providing device first transmits the link address to the mobile terminal, and then when a network connection becomes available, the service providing device or the mobile terminal is connected to the collaborative background server to extract the content prestored in the background server.

19. The method according to claim 10, wherein:

the collaborative background server pre-stores registration information, the registration information being provided by one or more of the user of the mobile terminal, or the mobile terminal, or the service providing device when registering with the collaborative background server; the registration information is extracted to use in the payment operation, wherein the registration information is transmitted between the service providing device and the mobile terminal and/or the collaborative background server, or between the mobile terminal and the collaborative background server, or between a plurality of collaborative background server.

20. The method according to claim 10, wherein:

the collaborative background server pre-stores identification information of the service providing device.

21. The method according to claim 10, wherein:

the service providing device is bound to the mobile terminal; and the service providing device pre-storing the stored fund and/or the payment account is released or distributed.

22. The method according to claim 4, wherein:

the service providing device stores an installation package of client software or a link address for downloading the client software; the service information obtained from parsing the code information or the parameter included in the service information may be automatically substituted into the client software; when determining that the mobile terminal is not installed with the client software, the service providing device provides the installation package or the download link address to the mobile terminal or downloads the installation package based on the link address and then transmits the downloaded installation package to the mobile terminal for automatic installation.

23. The method according to claim 4, wherein:

the mobile terminal is connected with two service providing devices; wherein one service providing device stores a code information parsing unit to parse the code information and

extract the content prestored in the other service providing device.

24. The method according to claim 4, wherein:

the mobile terminal is connected with a plurality of service providing devices; wherein the content is prestored in the plurality of service providing devices.

25. The method according to claim 10, wherein:

the mobile terminal is connected with two service providing devices; wherein one service providing device stores the payment account or has information bound to or associated with the payment account; and the other service providing device pre-stores the stored fund.

26. The method according to claim 4, wherein:

the information corresponding to the coding medium as extracted from parsing of the code information includes a first content stored in the service providing device or the mobile terminal; the information corresponding to the coding medium as extracted from next parsing of the code information includes a second content; the stored first content is obtained, and the amount involved in the payment operation is computed based on the first content and the second content; the coding mediums involved in the two times of parsing refer to the same coding medium with the same code information, or two coding mediums with different code information.

27. The method according to claim 10, wherein:

the first attribute information is prestored at the service providing device or the mobile terminal; when the payment operation is executed, currently corresponding second attribute information is obtained, and prestored first attribute information is extracted; the amount involved in the payment operation is computed based on the first attribute information or the second attribute information; the first attribute information corresponds to the mobile terminal or the user or the service providing device, or corresponds to the parsed code information or the coding medium corresponding to the code information; and the second attribute information corresponds to the mobile terminal or the service providing device, or corresponds to the parsed

code information, or corresponds to the coding medium corresponding to the code information.

28. The method according to claim 10, wherein:

the service providing device or the mobile terminal pre-stores a coding medium; and to execute the payment operation, the content obtained from parsing of the code information corresponding to the coding medium is used for the payment operation.

29. The method according to claim 4, wherein:

when executing the payment operation, the amount involved in the payment operation is computed based on the attribute information or attribute information change; wherein, the attribute information corresponds to the mobile terminal, or the user of the mobile terminal, or the service providing device, or corresponds to the code information, or corresponds to the coding medium corresponding to the code information, or, the attribute information refers to location information, corresponding to the mobile terminal, or the user of the mobile terminal, or the service providing device, or corresponding to the code information, or corresponding to the coding medium corresponding to the code information, or, the attribute information refers to time.

30. The method according to claim 29, wherein:

the attribute information is included in the service information extracted from parsing; or, the attribute information is included in the prestored content extracted from parsing; or, the attribute information is provided by the mobile terminal, or the user of the mobile terminal, or the service providing device, or the collaborative background server before or during the payment operation.

31. The method according to claim 29, wherein:

a corresponding discount is granted based on different attribute information or attribute information change, and the involved amount is adjusted when performing the payment operation; the attribute information and a rule for determining a corresponding discount are included in the service information extracted from parsing or included in the prestored content

extracted from parsing.

32. The method according to claim 4, wherein:

when parsing the code information, the code information parsing unit stored in the service providing device further determines whether the code information is generated according to a preset coding rule; in cases that the code information is generated according to the preset coding rule, the operations of extracting information and executing the payment operation are continued; and in cases that the code information is not generated according to the preset coding rule, after indicating a parse failure, or providing coding information related to parse failure, or providing information which can be linked to the page actually corresponding to the code information related to parse failure or linked to the actual corresponding page, the operations of extracting information and executing the payment operation are suspended.

33. The method according to claim 4, wherein:

the code information parsing unit stored by the service providing device parses the code information and in cases of determining that the code information is not generated according to the preset coding rule, the service providing device is connected to the collaborative background server to update a code parsing unit configured to parse, or request the background server to parse and return a parse result.

34. The method according to claim 4, wherein:

the code information is obtained by any of the following manners:

the code information is obtained from decoding the coding medium; the mobile terminal or the service providing device obtains a coding medium released where it can access, or a coding medium it receives, or a coding medium displayed thereto; the mobile terminal or the service providing device or the collaborative background server decodes the coding medium; the code information is obtained by clicking a hyperlink; the hyperlink is transmitted to the mobile terminal or the service providing device individually or along with a coding medium, or along with a carrier medium that may carry the hyperlink; or the code information is directly received by the service providing device or forwarded to the service providing device after the mobile

terminal or the collaborative background server receives it.

35. The method according to claim 10, wherein:

the service providing device and/or the mobile terminal interacts with the collaborative background server for transmitting the payment result; the service providing device and/or the mobile terminal provides the payment result to the user; the payment result is provided in real-time or non-real-time after the payment operation is completed.

36. The method according to claim 10, wherein:

the collaborative background server or the service providing device or the mobile terminal is further connected to the third-party server to provide post-payment services.

37. The method according to claim 10, wherein:

for the service provided after payment, the identification information of any one or more of the collaborative background server, the user of the mobile terminal, the mobile terminal, and the service providing device is provided as the service requesting party and/or service recipient; and/or the identification information of the third-party user or the third-party mobile terminal or the third-party server specified by the mobile terminal or the service providing device or the collaborative background server is provided as the service recipient; wherein the identification information is included in the code information, or included in the service information extracted from parsing, or included in the prestored content extracted from parsing; or, the identification information is provided by the user via the mobile terminal or the service providing device or the collaborative background server, or provided by the collaborative background server, or the mobile terminal, or the service providing device.

38. The method according to claim 37, wherein:

the identification information of the service requesting party and/or the service recipient is in default; wherein the service requesting party and/or the service recipient refer to a mobile terminal currently connected to the service providing device; or, the service requesting party and/or the service recipient are specified by a set operation procedure.

39. The method according to claim 1, wherein:

corresponding second code information is generated from second service information according to the preset coding rule, and then a corresponding second coding medium is generated from the second code information; the second code information is available to any party storing a matched code parsing rule to identify; the second service information includes any one or more items of the following:

payment result after executing the payment operation; first identification information, which refers to identification of any one or more of the collaborative background server, the user of the mobile terminal, the mobile terminal, and the service providing device; second identification information, which refers to identification information of a third-party user, a third-party mobile terminal, or a third-party server specified by the mobile terminal, the service providing device, or the collaborative background server; information correspondingly bound to the first identification information and/or second identification information; and attribute information corresponding to the user of the mobile terminal, or the mobile terminal, or the service providing device.

40. The method according to claim 39, wherein:

the second code information or the second coding medium is generated by the service providing device, or the mobile terminal, or the collaborative background server, or by a coding medium generating device specified by the service providing device or the mobile terminal or the collaborative background server, or by a third-party coding medium generating device according to a preset coding rule; the second code information or the second coding medium is released, or transmitted, or displayed, or stored by the service providing device or the mobile terminal; the second coding medium refers to any one of the following or a combination thereof:

a bar code image generated in a pattern of one-dimensional code, two-dimensional code, or multi-dimensional code; an optical lattice diagram generated in a form of light-shadow ray or refurbishing frequency variation or in a form of visible light or UV or infrared light or polarized light; and a digitalized acoustic wave or radio wave generated with a specific law or a specific frequency variation pattern.

41. The method according to claim 1, wherein:

the service providing device or the mobile terminal pre-stores a coding medium or its medium carrier; the service information corresponding to the coding medium includes the following parameters:

paid amount, or number of times of consumptions corresponding to the paid amount; upon consumption, the service providing device or the mobile terminal releases, or transmits, or displays the coding medium, and any party which identifies the coding medium or successfully parses the corresponding information can obtain the parameter in the service information to write off or update the parameter.

42. The method according to claim 6, wherein:

the coding medium refers to any one of the following or a combination thereof:

a bar code image generated in a pattern of one-dimensional code, two-dimensional code, or multi-dimensional code; an optical lattice diagram generated in a form of light-shadow ray or refurbishing frequency variation or in a form of visible light or UV or infrared light or polarized light; and a digitalized acoustic wave or radio wave generated with a specific law or a specific frequency variation pattern.

43. The method according to claim 4, wherein:

the collaborative background server includes one or more of the following:

server of the operator of the service providing device; server of the issuer of the service providing device; server of the issuer of the code information or its corresponding coding medium; server of the operator of the application configured in the service providing device; server of the operator of the application configured in the mobile terminal; server of the payee; and server which manages digital currency exchange.

44. The method according to claim 4, wherein:

the service providing device is further connected with the interface of the mobile terminal when performing parsing; and verification is performed when the service providing device performs parsing.

45. The method according to claim 4, wherein:

the verification is performed when the service providing device is connected to the mobile terminal comprises:

verification is performed when the service providing device is re-connected with the interface of the mobile terminal after disconnection, or performed when the service providing device is connected with the interface of another mobile terminal.

46. The method according to claim 45, wherein:

verification is performed by one of the service providing device, the mobile terminal, and the collaborative server or performed collaboratively by more of the parties; wherein the verification comprises:

determining whether password information provided by the user agrees with a preset password; or, determining whether biometric information acquired from the user agrees with preset biometric information; or, verifying through identity questions; or, verifying through short messages; or, determining whether the attribute information corresponding to the user or the mobile terminal or the service providing device is matched with specified attribute information; or, determining whether the location information corresponding to the mobile terminal or the service providing device is matched with specified location information; or, determining whether the service providing device maintains connected with the interface of the mobile terminal; or, determining whether the service providing device has a digital certificate, further confirming user identity through the digital certificate and verifying association between the mobile terminal and the digital certificate.

47. The method according to claim 46, wherein:

the service providing device or the mobile terminal stores a preset password, or preset biometric information, or prescribed attribute information, or prescribed location information, which is provided upon verification, for checking with the password information or biometric information or attribute information or location obtained upon verification.

48. The method according to claim 1, wherein:

identification information which may uniquely identify the user, or the mobile terminal, or the service providing device serves as a payment token, wherein the payment token is used to mask sensitive information.

49. The method according to claim 48, wherein:

the coding rule is stored at the service providing device or the mobile terminal; corresponding code information can be generated from the service information according to the coding rule; the service information is superimposed with identification information which serves as payment token and may uniquely identify the mobile terminal, or the user, or the service providing device, and/or associated information of the mobile terminal, or the user, or the service providing device; wherein payment tokenization can be implemented according to the coding rule so as to replace sensitive information with the payment token.

50. The method according to claim 1, wherein:

the stored fund refers to digital currency.

51. The method according to claim 1, wherein:

the service providing device is a USB device with a USB connector, which is connected to a mobile terminal with a corresponding USB interface; or the service providing device is a memory card, which is connected to the mobile terminal with a corresponding memory card slot or memory card interface; or the service providing device is a SIM card, which is connected to the mobile terminal with a corresponding SIM card slot or SIM card interface; or the service providing device is an eSIM card, which is connected to the mobile terminal with a corresponding eSIM card integrated interface or is integrated in the mobile terminal; or, the service providing device is a device having a wired or wireless communication interface, which is in signal connection with the mobile terminal having a corresponding wired or wireless communication interface, wherein the signal connection allows the service providing device to communicate with the mobile terminal when offline or online; or the service providing device is a device with an infrared interface, which is in signal connection with the mobile terminal with a corresponding infrared interface; or the service providing device is a device with a Bluetooth

interface, which is in signal connection with a mobile terminal with a corresponding Bluetooth interface; or the service providing device is wirelessly connected with the mobile terminal based on NFC identification; or the service providing device is a combination of at least two components that are respectively connected to the mobile terminal in same or different manners, wherein one component in the combination is any one in a first group including a USB device, a memory card, a SIM card, an eSIM card, or a device with a wired or wireless communication interface, a device with an infrared interface, a device with a Bluetooth interface, or a device that is connected based on NFC identification; the other component in the combination is any one in a second group including a USB device, a memory card, a SIM card, an eSIM card, or a device with a wired or wireless communication interface, a device with an infrared interface, a device with a Bluetooth interface, or a device that is connected based on NFC identification.

52. The method according to claim 1, wherein:

a wearable device serves as the mobile terminal or is connected with the mobile terminal; or, the service providing device is embedded in the wearable device.

53. The method according to claim 52, wherein:

the wearable device refers to one of the following parts or a portion thereof:

accessories, eyeglass, eyeglass clips, headwear, hats, tie clips, brooches, bow ties, bracelets, watches, earphones, clothing, and shoes; the wearable device is at least provided with an information display and input device.

54. The method according to claim 5, wherein:

the service providing device has a traffic service package which stores a stored fund and/or a payment account.

55. The method according to claim 8, wherein:

the traffic service package is issued by a set institution, the set institution including a bank, or an insurance company, or a telecommunication operator, or a merchant or a service providing device operator.

56. A service providing device for payment based on storage, wherein:

the service providing device is bound to a user, and is provided with a storage unit for storing verification-comparison information or storing link information for retrieving the verification-comparison information; the service providing device is connected with an interface provided for the mobile terminal to obtain prestored content for executing a payment operation; wherein the prestored content includes a stored fund and/or a payment account; and the prestored content is stored in the storage unit of the service providing device, or is obtained through the transmitting/receiving unit of the service providing device, or from the mobile terminal, the background server, or a designated external device; wherein the service providing device is always connected with the interface of the mobile terminal; or, the service providing device is connected with the interface of the mobile terminal when performing the payment operation; and verification is performed when the service providing device is connected to the mobile terminal or is performing a payment operation, the verification-comparison information is retrieved, and the verification-comparison information is checked and compared with verification information provided by the user or with verification information acquired from the user.

57. The service providing device according to claim 56, wherein:

the storage unit of the service providing device stores a code information parsing unit configured for parsing the code information, wherein the information extracted from the parsing includes:

service information corresponding to the code information, and/or the prestored content.

58. The service providing device according to claim 57, wherein:

a code parsing rule used in parsing the code information is matched with a preset coding rule used in generating the code information; the preset coding rule is used in generating corresponding code information based on the service information, or in generating corresponding coding information based on the service information and generating a coding medium corresponding to the code information.

59. The service providing device according to claim 57, wherein:

the obtained prestored content corresponds to a coding medium; extracting of the prestored content is performed by parsing the code information corresponding to the coding medium.

60. The service providing device according to claim 57, wherein:

the service providing device pre-stores a traffic service packet, the traffic service packet including a code parsing rule; and the information extracted from the parsing includes payment-related information; the service providing device performs a payment operation based on the payment-related information, the stored fund, and/or the payment account.

61. The service providing device according to claim 56, wherein:

the service providing device pre-stores a digital certificate, and after the user identity and the association between the mobile terminal and the digital certification are confirmed via the digital certificate, allows the service providing device to perform the payment operation based on the stored fund and/or payment account.

62. The service providing device according to claim 56, wherein:

transmitting/receiving unit of the service providing device may interact with the mobile terminal when offline, and may interact with the mobile terminal and/or a background server when online.

63. The service providing device according to claim 62, wherein:

the payment operation executed by the service providing device comprises:

deducting an amount from a stored fund; or, separating the payment from the settlement, wherein:

a to-be-paid amount is first recorded and then settling is performed when a collaborative background server is connected.

64. The service providing device according to claim 62, wherein:

a memory unit of the service providing device stores the stored fund from which an amount is

deducted when executing the payment operation, wherein the service providing device does not interact with the mobile terminal or the background server when deducting the amount from the stored fund; or, the service providing device needs to interact with the mobile terminal or the background server or the user before or when deducting the amount from the stored fund.

65. The service providing device according to claim 62, wherein:

a memory unit of the service providing device stores a designated account or link information for retrieving the designated account, wherein the designated account is prestored, or included in the service information, extracted from the parsing and then stored, or the designated account is stored after the transmitting/receiving unit retrieves based on link information, or the designated account is provided by the mobile terminal or provided by the user through the mobile terminal and stored after being retrieved by the transmitting/receiving unit; and the service providing device deducts the amount from the stored-value fund under the designated account; or, the service providing device records the to-be-paid amount under the designated account, and when the service providing device is connected to a collaborative background server, the transmitting/receiving unit transmits the designated account and the to-be-paid amount for settlement, and deduction or billing is performed under the designated account.

66. The service providing device according to claim 62, wherein:

the memory unit of the service providing device stores a digital certificate, wherein user identity and verify association between the mobile terminal and the digital certificate are further confirmed through the digital certificate.

67. The service providing device according to claim 58, wherein:

the transmitting/receiving unit of the service providing device further obtain code information from the mobile terminal or the background server and passes the code information to the code information parsing unit to parse; or, the transmitting/receiving unit further obtains a coding medium or other carrier medium from the mobile terminal or the background server, and passes the code information obtained from parsing the coding medium to the code parsing unit to parse, a decoding unit is provided at the service providing device or the mobile terminal or the

background server; the memory unit or the code parsing unit stores the code parsing rule or stores the code parsing rule and a coding rule; the coding medium refers to any one or any combination of the following:

a bar code image generated in a pattern of one-dimensional code, two-dimensional code, or multi-dimensional code; an optical lattice diagram in a form of light-shadow ray or refurbishing frequency variation or in a form of visible light or UV or infrared light or polarized light; and a digitalized acoustic wave or radio wave generated with a specific law or a specific frequency variation pattern.

68. The service providing device according to claim 57, wherein:

the service information extracted from the coding medium parsed by the code parsing unit or the code parsing rule further includes command information; the command information is configured for actuating the service providing device to execute an operation procedure set thereto, or for actuating the service providing device and the background server in collaboration therewith or the mobile terminal to execute the operation procedures respectively set thereto.

69. The service providing device according to claim 62, wherein:

a corresponding service is provided or an amount involved in the payment operation is adjusted based on attribute information; wherein the attribute information corresponds to the mobile terminal, or the user of the mobile terminal, or the service providing device, or corresponds to the code information, or corresponds to the coding medium corresponding to the code information; wherein the attribute information is included in the service information extracted from the parsing by the code parsing unit; or the attribute information is included in the content prestored by the memory unit and is extracted from parsing; or, the attribute information is provided by the mobile terminal, or the user of the mobile terminal, or the service providing device, or the background server before or during service provision and obtained by the transmitting/receiving unit.

70. The service providing device according to claim 62, wherein:

the transmitting/receiving unit of the service providing device further transmits the verification

and checking information and/or verification information; when the service providing device is connected to the mobile terminal or is providing a service or is performing a payment operation, the verification-comparison information is retrieved by the service providing device or the background server or a verification unit of the mobile terminal, used for checking with the verification information provided by the background server or the mobile terminal or the user or with the verification information acquired from the user.

71. The service providing device according to claim 62, wherein:

the memory unit of the service providing device further stores the coding medium or its carrier medium; the code information corresponding to the coding medium can be parsed by the service providing device or parsed by the mobile terminal or background server or other mobile terminal obtaining the coding medium; wherein the coding medium or its carrier medium is prestored before being distributed by the service providing device; or, the coding medium or its carrier medium is autonomously obtained by the service providing device or received from the mobile terminal or the background server before or during service provision; or, the coding medium or its carrier medium is generated by the mobile terminal or the coding medium generating unit configured for the service providing device.

72. The service providing device according to claim 62, wherein:

the service providing device generates corresponding second code information from second service information according to a preset coding rule, and then a corresponding second coding medium is generated from the second code information; the second code information is available to any party storing a matched code parsing rule to identify; wherein the second code information or the second coding medium can be transmitted by the transmitting/receiving unit, and/or stored by the memory unit; the second service information includes any one or more items of the following:

the payment result after executing the payment operation; first identification information, which refers to identification of any one or more of the collaborative background server, the user of the mobile terminal, the mobile terminal, and the service providing device; second identification information, which refers to identification information of a third-party user, a

third-party mobile terminal, or a third-party server specified by the mobile terminal, the service providing device, or the collaborative background server; information correspondingly bound to the first identification information and/or second identification information; and attribute information corresponding to the user of the mobile terminal, or the mobile terminal, or the service providing device.

73. The service providing device according to claim 62, wherein:

the service providing device is a USB device with a USB connector, which is connected to a mobile terminal with a corresponding USB interface; or the service providing device is a memory card, which is connected to the mobile terminal with a corresponding memory card slot or memory card interface; or the service providing device is a SIM card, which is connected to the mobile terminal with a corresponding SIM card slot or SIM card interface; or the service providing device is an eSIM card, which is connected to the mobile terminal with a corresponding eSIM card integrated interface or is integrated in the mobile terminal; or, the service providing device is a device having a wired or wireless communication interface, which is in signal connection with the mobile terminal having a corresponding wired or wireless communication interface, wherein the signal connection allows the service providing device to communicate with the mobile terminal when offline or online; or the service providing device is a device with an infrared interface, which is in signal connection with the mobile terminal with a corresponding infrared interface; or the service providing device is a device with a Bluetooth interface, which is in signal connection with a mobile terminal with a corresponding Bluetooth interface; or the service providing device is wirelessly connected with the mobile terminal based on NFC identification; or the service providing device is a combination of at least two components that are respectively connected to the mobile terminal in same or different manners, wherein one component in the combination is any one in a first group including a USB device, a memory card, a SIM card, an eSIM card, or a device with a wired or wireless communication interface, a device with an infrared interface, a device with a Bluetooth interface, or a device that is connected based on NFC identification; the other component in the combination is any one in a second group including a USB device, a memory card, a SIM card, an eSIM card, or a device with a wired or wireless communication interface, a device with an infrared interface, a

device with a Bluetooth interface, or a device that is connected based on NFC identification.

74. The service providing device according to claim 62, wherein:

a wearable device serves as the mobile terminal or is connected with the mobile terminal; or, the service providing device is embedded in the wearable device.

75. The service providing device according to claim 74, wherein:

the wearable device refers to one of the following parts or a portion thereof:

accessories, eyeglass, eyeglass clips, headwear, hats, tie clips, brooches, bow ties, bracelets, watches, earphones, clothing, and shoes; the wearable device is at least provided with an information display and input device.

76. The service providing device according to claim 56, wherein:

a memory unit of the service providing device pre-stores a traffic service package or stores a traffic service package received via a sending/receiving unit configured for the service providing device, wherein the traffic service package stores a stored fund and/or a payment account.

77. The service providing device according to claim 60, wherein:

the traffic service package is issued by a set institution, the set institution including a bank, or an insurance company, or a telecommunication operator, or a merchant or a service providing device operator.

78. A mobile terminal, wherein

the mobile terminal is provided with an interface, the mobile terminal being connected with the service providing device according to claim 56 via the interface; the service providing device is bound to a user, and stores verification-comparison information or stores link information for retrieving the verification-comparison information; the service providing device obtains a prestored content for executing a payment operation, wherein the prestored content includes a stored fund and/or a payment account; wherein the service providing device is always

connected with the interface of the mobile terminal; or, the service providing device is connected with the interface of the mobile terminal when performing the payment operation; verification is performed when the service providing device is connected to the mobile terminal or is performing a payment operation, the verification-comparison information is retrieved, and the verification-comparison information is checked and compared with verification information provided by the user or with verification information acquired from the user; the mobile terminal comprising:

a sending/receiving unit which may interact with the service providing device when offline and may interact with the service providing device and/or the background server when online; the sending/receiving unit provides the content prestored at the mobile terminal or the background server to the service providing device.

79. The mobile terminal according to claim 78, wherein:

the mobile terminal transmits or forwards via the transmitting/receiving unit a designated account or the coding medium or its carrier medium whose corresponding service information includes the designated account to the service providing device; the designated account is stored at the mobile terminal, or provided by the user or the background server during service provision or during executing the payment operation; the service providing device deducts an amount from the stored-value fund under the designated account; or, the service providing device records the to-be-paid amount under the designated account, so as to provide the designated account and the to-be-paid amount for settlement when the service providing device or the mobile terminal is connected to a background server, and to deduct the amount or form a bill under the designated account.

80. The mobile terminal according to claim 78, wherein:

the mobile terminal further comprises:

an obtaining module configured for obtaining a coding medium of a corresponding type, wherein the obtained coding medium is decoded by a decoding unit configured to any party of the mobile terminal or the service providing device or the background server for decoding to obtain corresponding code information, and the decoded code information is parsed by a code

information parsing unit configured to the service providing device to extract corresponding service information; the coding medium refers to any one or any combination of the following: a bar code image generated in a pattern of one-dimensional code, two-dimensional code, or multi-dimensional code; an optical lattice diagram in a form of light-shadow ray or refurbishing frequency variation or in a form of visible light or UV or infrared light or polarized light; and a digitalized acoustic wave or radio wave generated with a specific law or a specific frequency variation pattern.

81. The mobile terminal according to claim 80, wherein:

the mobile terminal further comprises:

an input unit configured for obtaining user inputted information; a displaying unit for displaying the input information or information from the service providing device or the background server upon interaction to the user or external parties, and displaying the coding medium obtained by the mobile terminal, or code information obtained from decoding, or service information extracted from the parsing.

82. The mobile terminal according to claim 78, wherein:

the mobile terminal further comprises:

a verifying unit configured for checking and comparing verification-comparison information with verification provided by the background server or the mobile terminal or the user or verification acquired from the user when the service providing device is connected to the mobile terminal or is providing a service or is performing a payment operation; the verification-comparison information is prestored in the service providing device or the mobile terminal or the background server, and is retrieved according to the link information stored in the service providing device; and the transmitting/receiving unit further transmits the verification-comparison information and/or verification information.

83. The mobile terminal according to claim 81, wherein:

the mobile terminal further comprises a coding medium generating unit configured for generating corresponding second code information from second service information according

to a preset coding rule, and then generating a corresponding second coding medium from the second code information; the second code information is available to any party storing a matched code parsing rule to identify; wherein the second code information or the second coding medium can be transmitted by the transmitting/receiving unit, and/or stored by the mobile terminal or the service providing device; the second service information includes any one or more items of the following:

the payment result after executing the payment operation; first identification information, which refers to identification of any one or more of the collaborative background server, the user of the mobile terminal, the mobile terminal, and the service providing device; second identification information, which refers to identification information of a third-party user, a third-party mobile terminal, or a third-party server specified by the mobile terminal, the service providing device, or the collaborative background server; information correspondingly bound to the first identification information and/or second identification information; and attribute information corresponding to the user of the mobile terminal, or the mobile terminal, or the service providing device.

84. The mobile terminal according to claim 78, wherein:

identification information which may uniquely identify the user, or the mobile terminal, or the service providing device and/or bound or association information thereof serves as a payment token, the payment token is used for performing masking to sensitive information.

85. The mobile terminal according to claim 78, wherein:

the coding rule is stored at the mobile terminal; corresponding code information may be generated from the service information according to the coding rule; the service information is superimposed with identification information which serves as payment token and may uniquely identify the mobile terminal, or the user, or the service providing device, and/or associated information of the mobile terminal, or the user, or the service providing device; wherein payment tokenization may be implemented according to the coding rule so as to replace sensitive information with the payment token.

86. The mobile terminal according to claim 78, wherein:

the service providing device is a USB device with a USB connector, which is connected to a mobile terminal with a corresponding USB interface; or the service providing device is a memory card, which is connected to the mobile terminal with a corresponding memory card slot or memory card interface; or the service providing device is a SIM card, which is connected to the mobile terminal with a corresponding SIM card slot or SIM card interface; or the service providing device is an eSIM card, which is connected to the mobile terminal with a corresponding eSIM card integrated interface or is integrated in the mobile terminal; or, the service providing device is a device having a wired or wireless communication interface, which is in signal connection with the mobile terminal having a corresponding wired or wireless communication interface, wherein the signal connection allows the service providing device to communicate with the mobile terminal when offline or online; or the service providing device is a device with an infrared interface, which is in signal connection with the mobile terminal with a corresponding infrared interface; or the service providing device is a device with a Bluetooth interface, which is in signal connection with a mobile terminal with a corresponding Bluetooth interface; or the service providing device is wirelessly connected with the mobile terminal based on NFC identification; or the service providing device is a combination of at least two components that are respectively connected to the mobile terminal in same or different manners, wherein one component in the combination is any one in a first group including a USB device, a memory card, a SIM card, an eSIM card, or a device with a wired or wireless communication interface, a device with an infrared interface, a device with a Bluetooth interface, or a device that is connected based on NFC identification; the other component in the combination is any one in a second group including a USB device, a memory card, a SIM card, an eSIM card, or a device with a wired or wireless communication interface, a device with an infrared interface, a device with a Bluetooth interface, or a device that is connected based on NFC identification.

87. The mobile terminal according to claim 83, wherein:

a wearable device serves as the mobile terminal or is connected with the mobile terminal; or, the service providing device is embedded in the wearable device; wherein the transmitting/receiving unit, the obtaining unit, the input unit, the displaying unit, the coding

medium generating unit, and the decoding unit are provided in one wearable device or separately provided in a plurality of wearable devices or separately provided in the wearable device and the mobile terminal.

88. The mobile terminal according to claim 87, wherein:

the wearable device refers to one of the following parts or a portion thereof:

accessories, eyeglass, eyeglass clips, headwear, hats, tie clips, brooches, bow ties, bracelets, watches, earphones, clothing, and shoes.