Claims

1. A method of paying based on a service providing device, comprising:
binding the service providing device to a user, the service providing device being connected to a mobile terminal and provided with a first application for parsing code information obtained by the service providing device to obtain parameters; the first application participating in service provision by the parameters substituted thereinto; wherein the service provision includes executing a payment operation, and the payment operation includes:
deducting an amount from a stored fund; or, separating payment from settlement, wherein a to-be-paid amount is first recorded, and then settlement is performed when a collaborative background server is connected; and opening a second application set by the mobile terminal according to the parameters obtained by parsing the code information; the second application driving the mobile terminal to present information to the user, and/or driving the mobile terminal to execute operation commands for providing services in cooperation with the service providing device by the parameters substituted into the second application.

2. The method according to claim 1, further comprising:
extracting information from the parsing; wherein the information extracted from the parsing includes:
service information corresponding to the code information; and/or pre-stored content, which is pre-stored in the service providing device, or the mobile terminal or the collaborative background server.

3. The method according to claim 2, further comprising:
recording the to-be-paid amount under a designated account, and settling under the designated account based on the recorded to-be-paid amount and the designated account when the collaborative background server is connected; or, first recording the to-be-paid amount, and then settling under the designated account based on the recorded to-be-paid amount when the collaborative background server is connected; wherein the designated account includes a payment account and/or a payee account; and the payment account is bound to the mobile

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

4. The method according to claim 3, wherein:
the designated account is included in the service information extracted from the parsing; or, the designated account is included in the pre-stored content extracted from the parsing; or, the designated account is obtained during providing a service or during executing the payment operation; wherein the designated account is provided by the user via the mobile terminal or the service providing device or the collaborative background server, or the designated account respectively provided by the collaborative background server, or the mobile terminal, or the service providing device.

5. The method according to claim 1, wherein:
recording of the to-be-paid amount is regarded as payment success, and then a subsequent service is provided, wherein the settlement is made when the collaborative background server is connected; or, recording of the to-be-paid amount and settling by the connected collaborative processing is regarded as payment success, and then the subsequent service is provided; wherein upon recording the to-be-paid amount, the service providing device is in a network connected or offline state, and the mobile terminal is in a network connected or offline state; upon settlement, at least one of the service providing device or the mobile terminal is in the network connected state and connected with the collaborative background server for making settlement.

6. The method according to claim 1, wherein:
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, the user of the mobile terminal, or the service providing device.

7. The method according to claim 2, wherein:
deducting the amount from the stored fund is regarded as payment success, and then the

subsequent service is provided; wherein upon deducting the amount 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; wherein the stored fund or data corresponding to the stored fund is included in the service information extracted from the parsing; or, the stored fund or data corresponding to the stored fund is included in the pre-stored content extracted from the parsing; wherein the stored fund refers to a digital currency.

8. The method according to claim 6, 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.

9. The method according to claim 2, 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 from the service information, or used in generating corresponding code information from the service information and then generating a coding medium corresponding to the code information.

10. The method according to claim 2, 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 is included in the pre-stored content extracted from the service providing device or the mobile terminal from the parsing; when network connection is available, the service providing device extracts the pre-stored content from the collaborative background server; when network connection is unavailable, the service providing device first transmits the link address to the mobile terminal, and when network connection becomes available, the service providing device or the mobile terminal is connected to the collaborative background server to extract the content pre-stored in the background server.

11. The method according to claim 2, wherein:
the service providing device initiates a hardware entity or an application of the mobile terminal to extract the pre-stored content; or, the service providing device initiates an external device designated by the service providing device or the mobile terminal to extract the pre-stored content.

12. The method according to claim 2, wherein:
at least part of the pre-stored content corresponds to the code information or corresponds to the coding medium corresponding to the code information.

13. The method according to claim 2, wherein:
the information extracted from the parsing or part thereof is transmitted to the mobile terminal or provided to the user of the mobile terminal to view, or provided to the user of the mobile terminal to view for further confirmation.

14. The method according to claim 2, wherein:
the information extracted from the parsing or part thereof refers to information bound to the mobile terminal, the user of the mobile terminal, or the service providing device.

15. The method according to claim 2, wherein:
the service information and/or the pre-stored content is extracted by the service providing device, or the mobile terminal or the collaborative background server.

16. The method according to claim 2, wherein:
the service providing device or the mobile terminal establishes a connection with the collaborative background server based on the information extracted from the parsing.

17. The method according to claim 2, wherein:
the service providing device is instructed to execute the payment operation based on the information extracted from the parsing.

18. The method according to claim 2, wherein:
a corresponding service is provided based on attribute information; 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.

19. The method according to claim 2, wherein:
a corresponding service is provided based on attribute information; the attribute information includes time and/or location information; wherein the location 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.

20. The method according to claim 2, wherein:
a corresponding service is provided based on attribute information; wherein the attribute information is included in the service information extracted from the parsing; or, the attribute information is included in the pre-stored content extracted from the 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 during service providing.

21. The method according to claim 18, wherein:
the amount involved in the payment operation is correspondingly adjusted based on the attribute information; the adjusted amount is deducted from the stored fund, or the adjusted amount is recorded as to-be-paid amount.

22. The method according to claim 21, wherein:
a corresponding discount is granted based on different attribute information, 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 the parsing or included in the pre-stored content extracted from the parsing.

23. The method according to claim 2, wherein:
through parsing, one or more of the service providing device, the mobile terminal, or the collaborative background server are driven to perform an operation flow set for them respectively; and the operation flow is included in the service information extracted from the parsing, or included in the pre-stored content extracted from the parsing.

24. The method according to claim 23, wherein:
identification information is included in the code information or in the service information extracted from the parsing; and after the identification information is correctly parsed by a matched service providing device, the set operation flow is executed based on an instruction in the service information.

25. The method according to claim 2, wherein:
a service is provided based on a request for service provision or after confirmation by the user; the request is provided by the user through a mobile terminal, or transmitted by the mobile terminal; or, the request is provided in a manner of code information or coding medium; and the confirmation is provided by the user through a mobile terminal, or transmitted by the mobile terminal; or, the confirmation is provided in a manner of code information or coding medium.

26. The method according to claim 23, wherein:
the request for service provision or the user confirmation is in default; and based on the set operation flow, the service providing device provides the service independently or in collaboration with one or more of the collaborative background server, the mobile terminal, or the user of the mobile terminal.

27. The method according to claim 2, wherein:
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 a service requester and/or a service recipient; and/or the identification information of the third-party user or the third-party mobile terminal or the third-party server designated by the mobile

terminal or the service providing device or the collaborative background server is provided as the service recipient.

28. The method according to claim 27, wherein:
the identification information is included in the code information, or included in the service information extracted from the parsing, or included in the pre-stored content extracted from the 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.

29. The method according to claim 23, wherein:
the identification information of the service requester and/or the service recipient is in default; wherein the service requester and/or the service recipient refer to a mobile terminal currently connected with the service providing device; or, the service requester and/or the service recipient are designated by the operation flow.

30. The method according to claim 2, further comprising:
parsing the code information, and determining 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, continuing operations of extracting information and providing services; in cases that the code information is not generated according to the preset coding rule, after indicating a parse failure, or providing code information related to the parse failure, or providing information which can be linked to the page actually corresponding to the code information related to the parse failure or linked to the actual corresponding page, suspending the operation of extracting information or providing services.

31. The method according to claim 2, wherein:
in cases of parsing the code information and 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, or request the background server

to parse and return a parse result.

32. The method according to claim 1, wherein:
the service providing device is bound to the mobile terminal and/or the user of the mobile terminal.

33. The method according to claim 1, wherein:
the code information is obtained in any of the following manners:
decoding a coding medium, wherein the coding medium is released where the mobile terminal or the service providing device can access and is obtained thereby, or received thereby, or displayed thereto, is then decoded by the mobile terminal or the service providing device or the collaborative background server; and clicking a hyperlink, wherein the hyperlink is transmitted to the mobile terminal or the service providing device independently 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 is forwarded to the service providing device by the mobile terminal or the collaborative background server upon receipt.

34. The method according to claim 33, wherein:
obtaining the coding medium includes initiating a camera to capture or scan the coding medium, or initiating a scan device to scan the coding medium.

35. The method according to claim 1, wherein:
the service providing device performs the payment operation independently; or, the service providing device interacts with the mobile terminal and/or the collaborative background server to collaborate in performing the payment operation; the at least part of the information needed for performing the payment operation 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 servers.

36. The method according to claim 1, wherein:

the service providing device and/or the mobile terminal interacts with the collaborative background server to transmit 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 executed.

37. The method according to claim 1, further comprising:
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, wherein the second code information is available to any party storing a matching code parsing rule to identify; wherein the second service information includes any one or more items of the following:
the payment result from executing the payment operation; first identification information, which refers to 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; second identification information, which refers to identification information of a third-party user, a third-party mobile terminal, or a third-party server designated 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.

38. The method according to claim 37, 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 designated 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, wherein 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.

39. The method according to claim 2, wherein:
identification information which may uniquely identify the user, or the mobile terminal, or the service providing device and/or bound or associated information thereof serves as a payment token, wherein the payment token is used to mask sensitive information.

40. The method according to claim 2, wherein:
the coding rule is stored at the service providing device or 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.

41. The method according to claim 33, 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.

42. The method according to claim 38, wherein:
the second coding medium is any one or combination of:
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 1, wherein:
the service providing device is provided with a hardware device embedded with the first application.

44. The method according to claim 2, comprising wherein:
the parameters obtained by parsing the code information are derived from the service information extracted after parsing or from pre-stored content extracted after parsing.

45. The method according to claim 23, wherein:
the code parsing rule used by the first application of the service providing device is matched with the preset code rule used in generating the code information; wherein the preset code rule is used in generating corresponding code information from the service information, or used in generating corresponding code information from the service information and generating a coding medium corresponding to the code information; the second application provided for the mobile terminal is associated with the first application and has a preset code rule or a matched code parsing rule, wherein the second application runs based on the preset code rule or the matched code parsing rule to perform a set operation; or, the second application provided for the mobile terminal is a universal application unrelated to the preset code rule or the matched code parsing rule.

46. The method according to claim 1, 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 first application configured in the service providing device; server of the operator of the second application configured in the mobile terminal; server of the payee; and server managing digital currency exchange.

47. The method according to claim 1, wherein:
the service providing device is connected with an interface of a mobile terminal; 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 parsing and/or performing the payment operation.

48. The method according to claim 47, wherein:
verification is performed when performing parsing, when performing the payment operation, or when the service providing device is re-connected with the interface of the mobile terminal after disconnection, or when the service providing device is connected with the interface of another mobile terminal.

49. The method according to claim 48, wherein:
verification is performed by one of the service providing device, the mobile terminal, and the collaborative server, or is performed collaboratively by more of the parties; the verification includes:
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, and further confirming user identity through the digital certificate and verifying association between the mobile terminal and the digital certificate.

50. The method according to claim 47, 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.

51. 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.

52. The method according to claim 51, wherein:
the wearable device refers to one of the following parts or part 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.

53. The method according to claim 35, comprising steps of:
interacting, by the service providing device or the mobile terminal, with the background server via at least one matched dedicated channel; transmitting at least part of information needed by service provision via the dedicated channel, and/or verifying user identity of the service providing device or the mobile terminal interacting with the background server via the dedicated channel.

54. The method according to claim 53, wherein:
the service providing device performs interaction with the background server via a GSM network; and/or, the service providing device interacts with the background server via the NB-IoT technology.

55. The method according to claim 53, wherein:
the service providing device comprises a SIM card, wherein the SIM card interacts with the background server via a GSM network, rather than the mobile terminal interacting with the background server via WiFi.

56. A service providing device, wherein:
the service providing device is bound to a user and is connected with an interface of a mobile terminal; the service providing device comprises:
a code information parsing unit configured for parsing code information obtained by the service providing device to extract service information corresponding to the parsed code information, such that the service providing device may provide services based on the extracted service information and content stored by the service providing device; and the service provision including executing a payment operation, and the payment operation including:
deducting an amount from a stored fund; or recording a to-be-paid amount first, and then performing settlement when a collaborative background server is connected; and a memory unit configured for storing the value-stored fund, and/or storing the recorded to-be-paid amount, wherein the code information parsing unit corresponds to a first application and obtains parameters by parsing the code information; the first application participates in providing

services by the parameters substituted thereinto; according to the parameters obtained by parsing the code information, a second application set by the mobile terminal is also opened; the second application drives the mobile terminal to present information to the user, and/or drives the mobile terminal to execute operation commands for providing services in cooperation with the service providing device by the parameters substituted into the second application.

57. The service providing device according to claim 56, wherein:
the service providing device further comprises:
a transmitting/receiving unit which may interact with the mobile terminal when offline, and may interact with the mobile terminal and/or a background server when online; the transmitting/receiving unit may 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 may further obtain a coding medium or its carrier medium from the mobile terminal or the background server; passes the code information obtained from the 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.

58. The service providing device according to claim 57, wherein:
the memory unit of the service providing device further stores a designated account or link information for retrieving the designated account; the designated account is pre-stored, or included in the service information, extracted from the parsing, and then stored, or the designated account is stored after being retrieved by the transmitting/receiving unit 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 fund under the designated account; or, the service providing device records the to-be-paid amount under the designated account, and when the collaborative background server is connected, the transmitting/receiving unit transmits the designated account and the to-be-paid amount to settle, wherein deduction or billing is performed under the designated account.

59. The service providing device according to claim 58, wherein:
the designated account is bound to the mobile terminal, or the user of the mobile terminal, or the service providing device.

60. The service providing device according to claim 57, wherein:
after the parsing, the service providing device obtains 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 pre-stored content extracted after being parsed by the service providing device or the mobile terminal.

61. The service providing device according to claim 57, wherein:
a code parsing rule used by the code information parsing unit in parsing the code information is matched with a preset coding rule used in generating the code information, wherein the preset coding rule is used in generating corresponding code information based on the service information, or in generating corresponding code information based on the service information and further generating a coding medium corresponding to the code information; the memory unit or the code information parsing unit stores the code parsing rule, or stores the code parsing rule and the preset 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 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.

62. The service providing device according to claim 61, wherein:
when the code information is parsed to find that the code information is generated according to the preset coding rule, the code information parsing unit of the service providing device continuously performs the operation of extracting the service information as well as subsequent operations; when the code information is parsed to find that the code information is not

generated according to the preset coding rule, information about parse error is indicated, or the information about parse error is provided, or information about a page actually corresponding to the code information capable of being linked to the parse error is provided, or the actual corresponding page is linked, and then the code information parsing unit of the service providing device does not perform the operation of extracting the service information or subsequent operations.

63. The service providing device according to claim 61, wherein:
command information is further included in the service information extracted from the coding medium parsed by the code information parsing unit or in the code parsing rule, wherein the command information is configured for actuating the service providing device to execute an operational flow set thereto, or for actuating the service providing device and the background server in collaboration therewith or the mobile terminal to execute the operational flow respectively set thereto.

64. The service providing device according to claim 58, 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 after being parsed by the code parsing unit; or the attribute information is included in the content pre-stored in the memory unit and is extracted after the 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.

65. The service providing device according to claim 58, wherein:
the memory unit of the service providing device further stores verification and check information or stores link information for retrieving the verification and check information; the

transmitting/receiving unit 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 and check information is retrieved by the service providing device or the background server or a verification unit of the mobile terminal, so as to check with the verification information provided by the background server or the mobile terminal or the user or check with the verification information acquired from the user.

66. The service providing device according to claim 61, 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 by the mobile terminal or background server or other mobile terminal which obtains the coding medium; wherein the coding medium or its carrier medium is pre-stored 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.

67. The service providing device according to claim 61, 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, wherein the second code information is available to any party storing a matching 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 from 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 designated 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.

68. The service providing device according to claim 56, wherein:
identification information which may uniquely identify the user, or the mobile terminal, or the service providing device and/or bound or associated information thereof serves as a payment token, the payment token is used to mask sensitive information.

69. The service providing device according to claim 68, wherein:
the coding rule is stored at the service providing device; corresponding code information may be generated from the service information according to the coding rule, wherein the service information is superimposed with the 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.

70. The service providing device according to claim 56, wherein:
the service providing device stores a digital certificate which is used to further confirm user identity and verify association between the mobile terminal and the digital certificate.

71. The service providing device according to claim 56, 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 integration 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: one component in the combination refers to 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 refers to 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.

72. The service providing device according to claim 56, 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.

73. The service providing device according to claim 72, wherein:
the wearable device refers to one of the following parts or part 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.

74. A mobile terminal, wherein:
an interface of the mobile terminal is connected with a service providing device bound to a user; wherein the mobile terminal comprises a transmitting/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; wherein the transmitting/receiving unit transmits or forwards code information, or coding medium or its carrier medium, to the service providing device to identify; wherein the service providing device is provided with a first application for parsing the code information obtained by the service providing device or decoding and parsing the coding medium to obtain parameters, the first application provides a service by the parameters substituted thereinto, wherein the provided service includes executing a payment operation of deducting an amount from a stored fund or recording a to-be-paid amount first, and then Performing settlement when a collaborative background server is connected; and the mobile terminal is provided with a second application, the second application is opened according to the parameters obtained by parsing the code information by the first application; and the second application drives the mobile terminal to present information to the user and/or drives the mobile terminal to execute operation commands for providing services in cooperation with the service providing device by the parameters substituted into the second application.

75. The mobile terminal according to claim 74, 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 the amount from the stored 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 to settle when the service providing device or the mobile terminal is connected to a background server, and deduct the amount or form a bill under the designated account.

76. The mobile terminal according to claim 74, 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 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.

77. The mobile terminal according to claim 76, further comprising:
an input unit configured for obtaining user inputted information; and a displaying unit configured for displaying the input information or information from the service providing device or the background server upon interaction to the user or the 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.

78. The mobile terminal according to claim 77, further comprising:
a verifying unit configured for checking and comparing verification and check information with verification information 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 and check information is pre-stored in the mobile terminal or the service providing device or the background server; and the transmitting/receiving unit further transmits the verification and check information and/or verification information.

79. The mobile terminal according to claim 78, 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, wherein the second code information is available to any party storing a matching 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 from 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 designated 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.

80. The mobile terminal according to claim 74, wherein:
identification information which may uniquely identify the user, or the mobile terminal, or the service providing device, and/or bound or associated information thereof serves as a payment token, wherein the payment token is used to mask sensitive information.

81. The mobile terminal according to claim 74, 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, wherein 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.

82. The mobile terminal according to claim 74, 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 integration 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: one component in the combination refers to 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 refers to 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.

83. The mobile terminal according to claim 79, 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.

84. The mobile terminal according to claim 83, wherein:
the wearable device refers to one of the following parts or part thereof:
accessories, eyeglass, eyeglass clips, headwear, hats, tie clips, brooches, bow ties, bracelets, watches, earphones, clothing, and shoes.