

CLAIMS

1. An application display method for a mobile device, comprising:

determining at least one high-frequency application, wherein the high-frequency application is an application software designed to run on the mobile device that matches a current position and a
5 current time and has a usage frequency greater than a preset frequency threshold; and

displaying on a lock-screen interface of the mobile device, an application icon of the at least one high-frequency application;

wherein when the at least one high-frequency application is one high-frequency application, displaying, on the lock-screen interface, the application icon of the at least one high-frequency
10 application comprises:

displaying on the lock-screen interface a first application icon and a second application icon that are both related to the high-frequency application, wherein the first application icon and the second application icon are displayed at the same time and are configured to accept inputs, wherein when operated, the first application icon is configured to launch the high-
15 frequency application and the second application is configured to display a display interface in a screen-off state, wherein the display interface in the screen-off state is a system desktop or an interface of an application;

detecting a selection operation against the first application icon and the second application icon within a preset time period; and

20 performing one of:

exiting the lock-screen interface and displaying an application interface of the high-frequency application after an authentication for unlocking is successful, based on a determination that the selection operation against the first application icon is detected, or no selection operation against the first application icon or the second application icon is
25 detected; or

exiting the lock-screen interface and displaying the display interface in the screen-off state after the authentication for unlocking is successful, based on a determination that the selection operation against the second application icon is detected.

2. The method of claim 1, wherein the first application icon and the second application icon of the
30 high-frequency application are displayed transparently.

3. The method of claim 1, wherein when the at least one high-frequency application is a plurality of high-frequency applications, the displaying on the lock-screen interface of the mobile device, the application icon of the at least one high-frequency application comprises:

determining a display parameter of each of the plurality of high-frequency applications according to a usage parameter of each of the plurality of high-frequency applications; and
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displaying, on the lock-screen interface, application icons of the plurality of high-frequency

applications differentially, according to the display parameter of each of the plurality of high-frequency applications.

4. The method of claim 3 further comprising the following after the displaying on the lock-screen interface the application icons of the plurality of high-frequency applications:

5 detecting selection operations against the plurality of high-frequency applications within the preset time period;

10 exiting the lock-screen interface and displaying, in split-screen, application interfaces of at least two high-frequency applications among the plurality of high-frequency applications after an authentication for unlocking is successful, based on a determination that the selection operations against the at least two high-frequency applications are detected; or

exiting the lock-screen interface and displaying a display interface in a screen-off state after the authentication for unlocking is successful, based on a determination that no selection operation against the plurality of high-frequency applications is detected.

15 5. The method of any of claims 1-4, wherein the determining the least one high-frequency application comprises:

obtaining a plurality of application usage records, wherein each application usage record corresponds to an application that is first enabled after unlocking successfully; and

determining, from the plurality of application usage records, at least one application with a usage frequency higher than a preset threshold to be the at least one high-frequency application.

20 6. The method of claim 1, wherein the first application icon has display parameters different from display parameters of the second application icon.

7. An application display device, comprising:

a processor; and

a communication unit coupled with the processor;

25 wherein the processor is configured to:

determine at least one high-frequency application and display, on a lock-screen interface, an application icon of the at least one high-frequency application via the communication unit, wherein the high-frequency application is an application software designed to run on the device that matches a current position and a current time and has a usage frequency greater than a preset frequency threshold;

30 wherein when the at least one high-frequency application is a plurality of high-frequency applications, the processor configured to display, on the lock-screen interface, the application icon of the at least one high-frequency application via the communication unit is further configured to:

35 determine a display parameter of each of the plurality of high-frequency applications according to a usage parameter of each of the plurality of high-frequency applications, wherein the display parameter comprises at least one of a size of the application icon, a color depth of

the application icon, a width of application icon edges, or a shape of the application icon; and display, on the lock-screen interface, application icons corresponding to the plurality of high-frequency applications differentially via the communication unit, according to the display parameter of each of the plurality of high-frequency applications;

5 after displaying, on the lock-screen interface, the application icons corresponding to the plurality of high-frequency applications differentially via the communication unit, detect selection operations against the application icons within a preset time period; and perform one of:

10 exit the lock-screen interface and displaying in split-screen, via the communication unit, application interfaces of at least two high-frequency applications among the plurality of high-frequency applications after an authentication for unlocking is successful, based on a determination that selection operations against application icons correspond to the at least two high-frequency applications are detected; or

15 exit the lock-screen interface and displaying, via the communication unit, a display interface in a screen-off state after the authentication for unlocking is successful, based on a determination that no selection operation against application icons correspond to the plurality of high-frequency applications is detected.

8. The device of claim 7, wherein the at least one high-frequency application is one high-frequency application, the processor configured to display, on the lock-screen interface, the application icon of the at least one high-frequency application via the communication unit is further configured to:

20 display on the lock-screen interface a first application icon and a second application icon of the high-frequency application via the communication unit, wherein the first application icon has display parameters different from display parameters of the second application icon.

9. The device of claim 8, wherein the processor is further configured to:

25 after displaying on the lock-screen interface the application icon of the at least one high-frequency application via the communication unit:

 detect a selection operation against the first application icon and the second application icon within a preset time period;

30 exit the lock-screen interface and displaying, via the communication unit, an application interface of the high-frequency application after an authentication for unlocking is successful, based on a determination that the selection operation against the first application icon is detected or no selection operation against the first application icon and the second application icon is detected; or

35 exit the lock-screen interface and displaying, via the communication unit, a display interface in a screen-off state after the authentication for unlocking is successful, based on a determination that the selection operation against the second application icon is detected.

10. The device of any of claims 7-9, wherein when the at least one high-frequency application comprises one high-frequency application, the processor configured to display, on the lock-screen interface, the application icon of the at least one high-frequency application via the communication unit is further configured to:

5 display on the lock-screen interface transparently the application icon of the at least one high-frequency application via the communication unit.

11. The device of any of claims 7-10, wherein the processor configured to determine the at least one high-frequency application is configured to:

10 obtain a plurality of application usage records via the communication unit, wherein each application usage record corresponds to an application that is first enabled after unlocking successfully; and

 determine, from the plurality of application usage records, at least one application with a usage frequency higher than a preset threshold to be the at least one high-frequency application.

12. A computer readable storage medium, being configured to store computer programs for
15 electronic data interchange, the computer programs being operable with a computer to perform the method of any of claims 1-6.