

CLAIMS

1. A computer-implemented method for implementing an accessibility function in current applications by bypassing third-party applications for reduced security risks, the method comprising:

5 providing, by a third-party application installed on a device, an accessibility function;
receiving, by a current application, a request for invoking an input control unit;
invoking the input control unit;

determining whether an event corresponding to the accessibility function is triggered by using the input control unit, wherein the accessibility function is provided by the third-party
10 application;

in response to determining that the event corresponding to the accessibility function is triggered by using the input control unit, determining a service feedback instruction corresponding to the event;

bypassing the third-party application by invoking an accessibility function engine of the
15 device, wherein the accessibility function engine bypasses an operating system of the device, wherein the operating system comprises a system accessibility manager and an accessibility service provided by the third-party application; and

implementing the accessibility function by using the accessibility function engine based on the service feedback instruction.

2. The computer-implemented method of claim 1, wherein the input control unit is configured in the application.

3. The computer-implemented method of claim 1, wherein determining whether the event
25 corresponding to an accessibility function is triggered by using the input control unit comprises:

detecting, as a triggered event, an event triggered by using the input control unit;
determining a type of the triggered event; and

determining whether the triggered event is the event corresponding to the accessibility function based on the type of the triggered event.

4. The computer-implemented method of claim 3, wherein determining the service feedback instruction corresponding to the event comprises:

determining a service feedback instruction corresponding to a type of the event based on a predetermined mapping relationship between a type of an event corresponding to the accessibility function and each service feedback instruction.

5. The computer-implemented method of claim 3, wherein the type of the triggered event comprises a tap, a double tap, or a focus change.

6. The computer-implemented method of claim 1, wherein invoking the accessibility function engine of a device comprises:

establishing a connection relationship to an engine that provides the accessibility function; and

invoking the accessibility function engine of the device that comprises the application based on the connection relationship.

7. The computer-implemented method of claim 1, wherein determining whether the event corresponding to the accessibility function is triggered by using the input control unit comprises:

detecting an event corresponding to the accessibility function by using the input control unit.

8. The computer-implemented method of claim 7, wherein determining the service feedback instruction corresponding to the event comprises:

determining a service feedback instruction corresponding to the event by using the input control unit.

9. The computer-implemented method of claim 8, wherein invoking the accessibility function engine of the device comprises:

invoking the accessibility function engine of the device by using the input control unit.

10. The computer-implemented method of claim 1, wherein the input control unit is an on-

screen keyboard.

11. The computer-implemented method of claim 10, wherein the accessibility function comprises a selection of a portion of the on-screen keyboard.

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12. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform operations for implementing an accessibility function in current applications by bypassing third-party applications for reduced security risks, the method comprising:

10 providing, by a third-party application installed on a device, an accessibility function;
 receiving, by a current application, a request for invoking an input control unit;
 invoking the input control unit;
 determining whether an event corresponding to the accessibility function is triggered by
 using the input control unit, wherein the accessibility function is provided by the third-party
 15 application;

 in response to determining that the event corresponding to the accessibility function is
 triggered by using the input control unit, determining a service feedback instruction
 corresponding to the event;

 bypassing the third-party application by invoking an accessibility function engine of the
 20 device, wherein the accessibility function engine bypasses an operating system of the device,
 wherein the operating system comprises a system accessibility manager and an accessibility
 service provided by the third-party application; and

 implementing the accessibility function by using the accessibility function engine based
 on the service feedback instruction.

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13. The non-transitory, computer-readable medium of claim 12, wherein the input control unit is configured in the application.

14. The non-transitory, computer-readable medium of claim 12, wherein determining
 30 whether the event corresponding to an accessibility function is triggered by using the input
 control unit comprises:

detecting, as a triggered event, an event triggered by using the input control unit;
determining a type of the triggered event; and
determining whether the triggered event is the event corresponding to the accessibility
function based on the type of the triggered event.

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15. The non-transitory, computer-readable medium of claim 14, wherein determining the
service feedback instruction corresponding to the event comprises:

determining a service feedback instruction corresponding to a type of the event based on
a predetermined mapping relationship between a type of an event corresponding to the
accessibility function and each service feedback instruction.

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16. The non-transitory, computer-readable medium of claim 14, wherein the type of the
triggered event comprises a tap, a double tap, or a focus change.

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17. The non-transitory, computer-readable medium of claim 12, wherein invoking the
accessibility function engine of a device comprises:

establishing a connection relationship to an engine that provides the accessibility
function; and

invoking the accessibility function engine of the device that comprises the application
based on the connection relationship.

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18. The non-transitory, computer-readable medium of claim 12, wherein:

determining whether the event corresponding to the accessibility function is triggered by
using the input control unit comprises detecting an event corresponding to the accessibility
function by using the input control unit; and

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determining the service feedback instruction corresponding to the event comprises
determining a service feedback instruction corresponding to the event by using the input control
unit.

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19. The non-transitory, computer-readable medium of claim 18, wherein invoking the
accessibility function engine of the device comprises:

invoking the accessibility function engine of the device by using the input control unit.

20. A computer-implemented system, comprising:

one or more computers; and

one or more computer memory devices interoperably coupled with the one or more

5 computers and having tangible, non-transitory, machine-readable media storing one or more instructions that, when executed by the one or more computers, perform operations for implementing an accessibility function in current applications by bypassing third-party applications for reduced security risks, the method comprising:

10 providing, by a third-party application installed on a device, an accessibility function;

receiving, by a current application, a request for invoking an input control unit;

invoking the input control unit;

15 determining whether an event corresponding to the accessibility function is triggered by using the input control unit, wherein the accessibility function is provided by the third-party application;

in response to determining that the event corresponding to the accessibility function is triggered by using the input control unit, determining a service feedback instruction corresponding to the event;

20 bypassing the third-party application by invoking an accessibility function engine of the device, wherein the accessibility function engine bypasses an operating system of the device, wherein the operating system comprises a system accessibility manager and an accessibility service provided by the third-party application; and

implementing the accessibility function by using the accessibility function engine based on the service feedback instruction.