CLAIMS

1. A method for activating a palm-scanning service, performed by a terminal, the method comprising:

displaying, in response to a pre-activation operation on a palm-scanning service, a palm enrollment interface using a target application running in the terminal, wherein a target account is logged in on the target application;

displaying, in the palm enrollment interface, an image captured by a camera of the terminal; and

notifying, when it is determined that palm information of an object in the image satisfies a palm enrollment condition, a server to record pre-enrolled palm data corresponding to the target account, wherein the pre-enrolled palm data is determined according to the image, and the server is configured to activate, when palm data collected by a palm-scanning device matching the pre-enrolled palm data is detected, the palm-scanning service for the target account according to the palm data.

2. The method according to claim 1, further comprising:

displaying prompt information in the palm enrollment interface, wherein the prompt information indicates an action to be performed by a palm to satisfy the palm enrollment condition.

3. The method according to claim 2, wherein displaying the prompt information in the palm enrollment interface comprises at least one of the following:

displaying position prompt information in the palm enrollment interface when the image does not comprise a palm, wherein the position prompt information indicates a position at which a palm is to be located relative to the terminal;

displaying adjustment prompt information in the palm enrollment interface when the image comprises a palm and a current placement state of the palm is inconsistent with a standard placement state, wherein the adjustment prompt information indicates an action to be performed by the palm to change from the current placement state to the standard placement state; or

displaying verification prompt information in the palm enrollment interface when the image comprises a palm and a current placement state of the palm is consistent with the standard placement state, wherein the verification prompt information indicates a liveness verification action to be performed by the palm.

4. The method according to claim 3, wherein displaying the adjustment prompt information in the palm enrollment interface comprises:

displaying, in the palm enrollment interface, a first reference identifier corresponding to the standard placement state and a second reference identifier corresponding to the current placement state; and

displaying the adjustment prompt information according to a relationship between the first reference identifier and the second reference identifier, wherein the adjustment prompt information indicates an action to be performed by the palm to adjust the second reference identifier to match the first reference identifier.

5. The method according to any one of claims 1 to 4, further comprising:

displaying an identity verification interface using the target application, wherein the identity verification interface is used to verify an association relationship between the object and the target account; and

wherein notifying the server to record the pre-enrolled palm data corresponding to the target account comprises:

notifying, when it is determined that the association relationship between the object and the target account passes verification, the server to record the pre-enrolled palm data corresponding to the target account;

optionally, the method further comprises:

displaying palm-scanning device prompt information, wherein the palm-scanning device prompt information indicates a device usage condition to be satisfied when the palm-scanning service is activated for the target account based on the pre-enrolled palm data, the device usage condition indicating at least one of a geographical location range or a usage time range corresponding to the palm-scanning device to be used.

6. The method according to any one of claims 1 to 5, wherein the palm enrollment condition comprises an image quality condition and a palm liveness condition; and whether the palm information of the object in the image satisfies the palm enrollment condition is determined in the following manner:

determining respective quality evaluation results of a plurality of frames of images captured by the camera according to reference indicator information respectively corresponding to the plurality of frames of images; and determining, according to the respective quality evaluation

results of the plurality of frames of images, whether the palm information of the object in the image satisfies the image quality condition; and

detecting, using a liveness detection mechanism and based on the palm information of the object in the image, whether the palm information of the object in the image satisfies the palm liveness condition.

7. The method according to claim 6, wherein determining the respective quality evaluation results of the plurality of frames of images captured by the camera according to the reference indicator information respectively corresponding to the plurality of frames of images comprises:

for each frame of image, determining the quality evaluation result of the image according to at least one of the following:

palm direction information in the image;

palm movement speed information;

position relationship information between the palm and a reference boundary; or

image quality information of the image.

8. The method according to claim 7, wherein at least one of the palm direction information or the palm movement speed information is determined in the following manner:

determining palm localization information in the image using a depth detection algorithm;

determining position information of a first key point in the image based on the palm localization information; and

determining the palm direction information according to the position information of the first key point in the image; and/or determining the palm movement speed information according to the position information of the first key point in the image and position information of a first key point in a frame of image adjacent to the image.

9. The method according to claim 7 or 8, wherein the image quality information is determined in the following manner:

determining an image quality score of the image according to the image using a palm image evaluation model, wherein the palm image evaluation model is trained based on a training palm image and a corresponding annotation score, the annotation score being determined according to a difference between the training palm image and a corresponding reference palm image.

10. The method according to any one of claims 6 to 9, wherein the pre-enrolled palm data is

determined in the following manner:

determining a preferred image among the plurality of frames of images according to the respective quality evaluation results of the plurality of frames of images; and

extracting palm feature data in the preferred image as the pre-enrolled palm data corresponding to the target account.

11. The method according to any one of claims 6 to 10, wherein detecting, using the liveness detection mechanism and based on the palm information of the object in the image, whether the palm information of the object in the image satisfies the palm liveness condition comprises at least one of the following:

determining an image feature of the image in a preset color space; and determining, using a liveness discrimination model and according to the image feature, whether the palm in the image is a living palm; or

determining second key points in the image using a gesture detection algorithm, and determining a gesture in the image according to a relative position relationship between the second key points; and determining, if the gesture in the image matches the liveness verification action, that the palm in the image is the living palm.

12. A method for activating a palm-scanning service, performed by a server, the method comprising:

obtaining palm data collected by a palm-scanning device;

detecting whether target pre-enrolled palm data matching the palm data exists in a pre-enrollment database, wherein the pre-enrollment database is used to store a correspondence between pre-enrolled palm data and an account, the pre-enrolled palm data being determined according to an image captured by a terminal, the image being captured by the terminal in response to a pre-activation operation on a palm-scanning service, and the account corresponding to the pre-enrolled palm data being an account logged in on a target application running in the terminal; and

if the target pre-enrolled palm data is detected to exist, determining a target account corresponding to the target pre-enrolled palm data, and establishing a correspondence between the target account and the palm data to activate the palm-scanning service for the target account.

13. The method according to claim 12, wherein the target pre-enrolled palm data is associated with a device usage condition to be satisfied when the palm-scanning service is activated for the target account, the device usage condition indicating at least one of a geographical location range

or a usage time range corresponding to the palm-scanning device to be used;

wherein the method further comprises:

detecting whether the palm-scanning device for collecting the palm data satisfies the device usage condition; and

wherein establishing the correspondence between the target account and the palm data comprises:

establishing the correspondence between the target account and the palm data when the palm-scanning device for collecting the palm data satisfies the device usage condition.

14. The method according to claim 12 or 13, further comprising at least one of the following:

controlling the palm-scanning device to display activation verification information, wherein the activation verification information is used to instruct to trigger a verification operation; receiving operation content corresponding to the verification operation uploaded by the palm-scanning device; and determining, according to the operation content, whether to execute the operation of establishing the correspondence between the target account and the palm data;

after establishing the correspondence between the target account and the palm data to activate the palm-scanning service for the target account, providing the palm-scanning service based on the target account; and controlling the palm-scanning device to display a service result corresponding to the palm-scanning service; or,

after establishing the correspondence between the target account and the palm data, storing the correspondence between the target account and the palm data into a target enrollment database, and deleting a correspondence between the target account and the target pre-enrolled palm data from the pre-enrollment database, wherein the target enrollment database is used to store a correspondence between an account that has activated the palm-scanning service and the palm data, and the target enrollment database takes precedence over the pre-enrollment database as a data source for matching the palm data during verification.

15. A computer device, comprising:

a processor; and

a memory storing a computer program;

wherein the processor is configured to perform, according to the computer program, the method for activating a palm-scanning service according to any one of claims 1 to 14.