

CLAIMS

What is claimed is:

1. A payment information processing method performed by a payment service platform, the method comprising:

5 obtaining a payment request that is sent by a target organization and that is generated based on a payment operation performed by a user, wherein the payment request comprises identification information of an authorized payment account, and the authorized payment account is a payment account for which a one-step payment authorization relationship with the target organization is established in advance;

10 determining account status information of the authorized payment account;

determining, based on the account status information, whether a transaction corresponding to the payment request is at a transaction risk, to obtain a first determining result; and

15 if the first determining result indicates that the transaction is not at a transaction risk, performing a first payment procedure; or

if the first determining result indicates that the transaction is at a transaction risk, performing a second payment procedure comprising a first identity verification process that is performed by the payment service platform.

2. The method according to claim 1, wherein the payment request comprises a payment amount, and before the determining, based on the account status information, whether a transaction corresponding to the payment request is at a transaction risk, the method further comprises:

determining, based on the payment request, whether the payment amount is less than or equal to a preset payment amount, to obtain a second determining result; and

25 if the second determining result indicates that the payment amount is greater than the preset payment amount, performing a third payment procedure comprising a second identity verification process; and

the determining whether a transaction corresponding to the payment request is at a transaction risk specifically comprises:

30 if the second determining result indicates that the payment amount is less than or equal to the preset payment amount, determining, based on the account status information, whether the transaction corresponding to the payment request is at a transaction risk.

3. The method according to claim 1, wherein the method further comprises:

receiving a one-step payment authorization application sent by the target organization, wherein the one-step payment authorization application is generated based on an authorization application operation performed by the user in a terminal, and the one-step payment authorization application comprises account information of a to-be-authorized payment account logged in on the terminal and organization identification information of the target organization;

sending first payment verification indication information for the to-be-authorized payment account to the terminal;

receiving first payment verification information that is sent by the terminal and that is in response to the first payment verification indication information;

determining whether the first payment verification information is consistent with payment verification information preset for the to-be-authorized payment account, to obtain a third determining result; and

if the third determining result indicates that the first payment verification information is consistent with the payment verification information preset for the to-be-authorized payment account, generating an authorization certificate used for a one-step payment, wherein the authorization certificate used for a one-step payment indicates that a one-step payment authorization relationship is established between the to-be-authorized payment account and the target organization.

4. The method according to claim 3, wherein the payment request comprises an organization identifier corresponding to the target organization and a device identifier of a terminal that receives the payment operation performed by the user;

before the determining whether a transaction corresponding to the payment request is at a transaction risk, the method further comprises:

determining, based on the device identifier, a login payment account currently logged in on the terminal;

determining, based on the authorization certificate, whether the login payment account is consistent with the authorized payment account corresponding to the authorization certificate, to obtain a fourth determining result; and

if the fourth determining result indicates that the login payment account is inconsistent with the payment account corresponding to the authorization certificate, performing a fourth payment procedure comprising a third identity verification process; and

the determining whether a transaction corresponding to the payment request is at a transaction risk specifically comprises:

if the fourth determining result indicates that the login payment account is consistent with the authorized payment account corresponding to the authorization certificate, determining, based on the account status information, whether the transaction corresponding to the payment request is at a transaction risk.

5 5. The method according to claim 4, wherein the first identity verification process is specifically an identity verification process for the authorized payment account corresponding to the authorization certificate.

10 6. The method according to claim 3, wherein before the determining whether a transaction corresponding to the payment request is at a transaction risk, the method further comprises:

 determining, based on the payment request, an initiation time at which the payment request is initiated;

 determining whether the initiation time is within a validity period of the authorization certificate, to obtain a fifth determining result; and

15 if the fifth determining result indicates that the initiation time is not within the validity period of the authorization certificate, performing a fifth payment procedure comprising fourth identity verification; and

 the determining whether a transaction corresponding to the payment request is at a transaction risk specifically comprises:

20 if the fifth determining result indicates that the initiation time is within the validity period of the authorization certificate, determining, based on the account status information, whether the transaction corresponding to the payment request is at a transaction risk.

25 7. The method according to claim 1, wherein the determining, based on the account status information, whether a transaction corresponding to the payment request is at a transaction risk specifically comprises:

 determining risk assessment basis information based on the account status information, wherein the risk assessment basis information comprises at least one of a device identifier of a terminal that receives the payment operation performed by the user, GPS location information of the terminal, and IP address information of the terminal; and

30 determining, based on the risk assessment basis information, whether the transaction corresponding to the payment request is at a transaction risk.

 8. The method according to claim 7, wherein the determining, based on the risk assessment basis information, whether the transaction corresponding to the payment request is at a transaction risk specifically comprises:

determining a device identifier of a frequently used login device of the authorized payment account based on the account status information;

determining whether the device identifier of the terminal that receives the payment operation performed by the user is consistent with the device identifier of the frequently used login device; and

if the device identifier of the terminal that receives the payment operation performed by the user is consistent with the device identifier of the frequently used login device, determining that the transaction corresponding to the payment request is not at a transaction risk; or

if the device identifier of the terminal that receives the payment operation performed by the user is inconsistent with the device identifier of the frequently used login device, determining that the transaction corresponding to the payment request is at a transaction risk; or

determining a device identifier of a bound device of the authorized payment account based on the account status information, wherein the bound device is a device for which a binding relationship with the payment account is set in advance;

determining whether the device identifier of the terminal that receives the payment operation performed by the user is consistent with the device identifier of the bound device; and

if the device identifier of the terminal that receives the payment operation performed by the user is consistent with the device identifier of the bound device, determining that the transaction corresponding to the payment request is not at a transaction risk; or

if the device identifier of the terminal that receives the payment operation performed by the user is inconsistent with the device identifier of the bound device, determining that the transaction corresponding to the payment request is at a transaction risk.

9. The method according to claim 7, wherein the determining, based on the risk assessment basis information, whether the transaction corresponding to the payment request is at a transaction risk specifically comprises:

determining the IP address information of the terminal based on the account status information;

determining IP address information of a previous successful transaction of the authorized payment account based on the identification information of the authorized payment account;

determining whether the IP address information of the terminal is consistent with the IP address information of the previous successful transaction of the authorized payment account; and

if the IP address information of the terminal is consistent with the IP address information of the previous successful transaction of the authorized payment account, determining that the transaction corresponding to the payment request is not at a transaction risk; or

5 if the IP address information of the terminal is inconsistent with the IP address information of the previous successful transaction of the authorized payment account, determining that the transaction corresponding to the payment request is at a transaction risk; or

determining the IP address information of the terminal based on the account status information;

10 determining frequently used transaction IP address information of the authorized payment account based on the identification information of the authorized payment account;

determining whether the IP address information of the terminal is consistent with the frequently used transaction IP address information of the authorized payment account; and

15 if the IP address information of the terminal is consistent with the frequently used transaction IP address information of the authorized payment account, determining that the transaction corresponding to the payment request is not at a transaction risk; or

if the IP address information of the terminal is inconsistent with the frequently used transaction IP address information of the authorized payment account, determining that the transaction corresponding to the payment request is at a transaction risk.

20 10. The method according to claim 7, wherein the determining, based on the risk assessment basis information, whether the transaction corresponding to the payment request is at a transaction risk specifically comprises:

determining the device identifier of the terminal based on the account status information;

25 determining geographical location information of the terminal based on the device identifier of the terminal;

determining frequently used geographical location information of a successful transaction corresponding to the authorized payment account based on the identification information of the authorized payment account;

30 determining whether the geographical location information of the terminal is consistent with the frequently used geographical location information of the successful transaction corresponding to the authorized payment account; and

if the geographical location information of the terminal is consistent with the frequently used geographical location information of the successful transaction corresponding to the

authorized payment account, determining that the transaction corresponding to the payment request is not at a transaction risk; or

if the geographical location information of the terminal is inconsistent with the frequently used geographical location information of the successful transaction corresponding to the authorized payment account, determining that the transaction corresponding to the payment request is at a transaction risk.

11. The method according to claim 1, wherein the authorized payment account comprises at least one payment sub-account; and

the performing a first payment procedure specifically comprises:

determining a first payment sequence preset for all payment sub-accounts;

determining a first payment sub-account that is in all the payment sub-accounts and whose account balance is greater than or equal to a payment amount corresponding to the payment request as a first target payment account based on the first payment sequence; and

deducting the payment amount from the first target payment account.

12. The method according to claim 5, wherein the performing a second payment procedure comprising a first identity verification process specifically comprises:

sending second payment verification indication information to the terminal, so that the user enters second payment verification information based on the second payment verification indication information;

receiving the second payment verification information entered by the user;

determining whether the second payment verification information is consistent with payment verification information preset for the authorized payment account corresponding to the authorization certificate; and

if the second payment verification information is consistent with the payment verification information preset for the authorized payment account corresponding to the authorization certificate, deducting a payment amount corresponding to the payment request from the authorized payment account.

13. The method according to claim 12, wherein the authorized payment account comprises at least one authorized payment sub-account;

before the sending second payment verification indication information to the terminal, the method further comprises:

determining a second payment sequence preset for all authorized payment sub-accounts;

and

determining a first authorized payment sub-account that is in all the authorized payment sub-accounts and whose account balance is greater than or equal to the payment amount corresponding to the payment request as a second target payment account based on the second payment sequence;

5 the sending second payment verification indication information to the terminal specifically comprises:

 sending second payment verification indication information for the second target payment account to the terminal;

 the determining whether the second payment verification information is consistent with
10 payment verification information preset for the authorized payment account corresponding to the authorization certificate specifically comprises:

 determining whether the second payment verification information is consistent with payment verification information preset for the second target payment account; and

 the deducting a payment amount corresponding to the payment request from the
15 authorized payment account specifically comprises:

 deducting the payment amount corresponding to the payment request from the second target payment account.

 14. The method according to claim 4, wherein the performing a fourth payment procedure comprising a third identity verification process specifically comprises:

20 sending third payment verification indication information to the terminal, so that the user enters third payment verification information based on the third payment verification indication information;

 receiving the third payment verification information entered by the user;

 determining whether the third payment verification information is consistent with
25 payment verification information preset for the login payment account; and

 if the third payment verification information is consistent with the payment verification information preset for the login payment account, deducting a payment amount corresponding to the payment request from the login payment account.

 15. The method according to claim 14, wherein the login payment account comprises at
30 least one login payment sub-account;

 before the sending third payment verification indication information to the terminal, the method further comprises:

 determining a third payment sequence preset for all login payment sub-accounts; and

determining a first login payment sub-account that is in all the login payment sub-accounts and whose account balance is greater than or equal to the payment amount corresponding to the payment request as a third target payment account based on the third payment sequence;

5 the sending third payment verification indication information to the terminal specifically comprises:

 sending third payment verification indication information for the third target payment account to the terminal;

10 the determining whether the third payment verification information is consistent with payment verification information preset for the login payment account specifically comprises:

 determining whether the third payment verification information is consistent with payment verification information preset for the third target payment account; and

 the deducting a payment amount corresponding to the payment request from the login payment account specifically comprises:

15 deducting the payment amount corresponding to the payment request from the third target payment account.

 16. A payment information processing apparatus, comprising:

 a request obtaining module, configured to obtain a payment request that is sent by a target organization and that is generated based on a payment operation performed by a user, wherein
20 the payment request comprises identification information of an authorized payment account, and the authorized payment account is a payment account for which a one-step payment authorization relationship with the target organization is established in advance;

 an information determining module, configured to determine account status information of the authorized payment account;

25 a first determining module, configured to determine, based on the account status information, whether a transaction corresponding to the payment request is at a transaction risk, to obtain a first determining result; and

 a first procedure module, configured to: if the first determining result indicates that the transaction is not at a transaction risk, perform a first payment procedure; or

30 a second procedure module, configured to: if the first determining result indicates that the transaction is at a transaction risk, perform a second payment procedure comprising a first identity verification process that is performed by the payment information processing apparatus.

 17. The apparatus according to claim 16, wherein the payment request comprises a payment amount, and the apparatus further comprises:

a second determining module, configured to determine, based on the payment request, whether the payment amount is less than or equal to a preset payment amount, to obtain a second determining result; and

a third procedure module, configured to: if the second determining result indicates that the payment amount is greater than the preset payment amount, perform a third payment procedure comprising a second identity verification process; and

the first determining module is specifically configured to:

if the second determining result indicates that the payment amount is less than or equal to the preset payment amount, determine, based on the account status information, whether the transaction corresponding to the payment request is at a transaction risk.

18. The apparatus according to claim 16, wherein the first determining module is specifically configured to:

determine risk assessment basis information based on the account status information, wherein the risk assessment basis information comprises at least one of a device identifier of a terminal that receives the payment operation performed by the user, GPS location information of the terminal, and IP address information of the terminal; and

determine, based on the risk assessment basis information, whether the transaction corresponding to the payment request is at a transaction risk.

19. A payment information processing device, comprising:

at least one processor; and

a memory communicatively connected to the at least one processor, wherein

the memory stores instructions that can be executed by the at least one processor, and the instructions are executed by the at least one processor, to enable the at least one processor to perform the following operations:

obtaining a payment request that is sent by a target organization and that is generated based on a payment operation performed by a user, wherein the payment request comprises identification information of an authorized payment account, and the authorized payment account is a payment account for which a one-step payment authorization relationship with the target organization is established in advance;

determining account status information of the authorized payment account;

determining, based on the account status information, whether a transaction corresponding to the payment request is at a transaction risk, to obtain a first determining result; and

if the first determining result indicates that the transaction is not at a transaction risk, performing a first payment procedure; or

if the first determining result indicates that the transaction is at a transaction risk, performing a second payment procedure comprising a first identity verification process that is performed by the payment information processing device.

20. A computer-readable medium, wherein the computer-readable medium stores computer-readable instructions, and the computer-readable instructions can be executed by a processor to implement the payment information processing method according to any one of claims 1 to 15.