

CLAIMS

1. A computer-implemented method for authorizing a user transaction, the method comprising:

receiving, by a computer system from a transaction system via a network, a request to authorize a transaction involving a user of a mobile device;

determining, by the computer system, whether the mobile device is within a maximum allowable range of an authentication device;

responsive to the mobile device being within the maximum allowable range of the authentication device, authorizing, by the computer system, the transaction;

responsive to the mobile device not being within the maximum allowable range of the authentication device:

identifying, by the computer system, at least one rule applicable to the transaction;

determining, by the computer system and according to historical information describing a connection between the mobile device and the authentication device, whether the applicable rule is satisfied; and

responsive to the applicable rule being satisfied, authorizing, by the computer system, the transaction.

2. The method of claim 1 further comprising:

responsive to the applicable rule not being satisfied:

sending, by the computer system, a request to the user to perform an additional authentication action; and

responsive to receiving an indication that the user performed the additional authentication action, authorizing, by the computer system, the transaction.

3. A computer-implemented method for authorizing a transaction, the method comprising:

receiving, by a computer system from a transaction system via a network, a request to authorize a transaction involving a user of a mobile device;

determining, by the computer system, whether to authorize the transaction based on historical authentication information generated prior to receiving the request and generated based on communication between an authentication device and a mobile device via a limited-range connection; and

notifying the transaction system, by the computer system, of the determination as to whether to authorize the transaction.

4. The method of claim 3, wherein determining whether to authorize the transaction comprises:

identifying one or more rules applicable to the transaction;
determining whether conditions of the applicable rules are satisfied, wherein for at least one of the applicable rules, the determination is made based on the historical authentication information; and
determining whether to authorize the transaction based on the determination as to whether the conditions of the applicable rules are satisfied.

5. The method of claim 4, wherein determining whether conditions of the applicable rules are satisfied further comprises:

requesting from the mobile device, based on an applicable rule, that the user provide personal information to authorize the transaction; and
responsive to receiving the personal information, determining that one or more conditions of the applicable rule are satisfied based on the personal information.

6. The method of claim 5, the personal information comprises one or more of the following: a personal identification number, a username, a password, and an answer to a security question.

7. The method of claim 4, wherein determining whether conditions of the applicable rules are satisfied further comprises:

requesting from the mobile device, based on an applicable rule, that the user perform one or more movements with the authentication device;
receiving information from the mobile device indicating whether the user performed the movements; and
determining whether one or more conditions of the applicable rule are satisfied based on the received information.

8. The method of claim 4, further comprising:
calculating, by the computer system, a risk score based on whether the conditions of the applicable rules are satisfied; and

determining, by the computer system, whether to authorize the transaction based on the risk score.

9. The method of claim 3, wherein the historical authentication information is generated by the mobile device based on one or more messages received by the mobile device from the authentication device via the limited-range connection.

10. The method of claim 3, wherein the historical authentication information is generated by the mobile device based on one or more expected messages not being received by the mobile device from the authentication device via the limited-range connection.

11. The method of claim 3, wherein the historical authentication information includes one or more of the following: a time and date when a message was received by the mobile device from the authentication device, an indication as to whether the limited-range connection was active at a certain time, a geographic location of the mobile device at a certain time, and an IP address of the mobile device at a certain time.

12. The method of claim 3, further comprising:
responsive to determining that an account involved in the transaction has been placed on hold by the user, determining to deny the transaction.

13. A computer-implemented method comprising:
establishing, by a mobile device, a limited-range connection with an authentication device, the mobile device and the authentication device associated with a user;
generating, by the mobile device, authentication information based on the limited-range connection;
transmitting, by the mobile device, the authentication information to an authorization system, wherein the authorization system determines whether to authorize a transaction based on the authentication information;
monitoring, by the mobile device, whether the authentication device is within a maximum distance of the mobile device via the connection;
responsive to determining that the authentication device is not within the maximum distance of the mobile device, determining, by the mobile device, a geographic location of the authentication device; and
presenting, by the mobile device, the determined geographic location to the user.

14. The method of claim 13, wherein the authentication information is generated by the mobile device based on one or more messages received by the mobile device from authentication device via the connection.

15. The method of claim 13, wherein the authentication information is generated by the mobile device based on one or more expected messages not being received by the mobile device from authentication device via the connection.

16. The method of claim 13, wherein the authentication information includes one or more of the following: a time and date when a message was received by the mobile device from the authentication device, an indication as to whether the limited-range connection was active at a certain time, a geographic location of the mobile device at a certain time, and an IP address of the mobile device at a certain time.

17. The method of claim 13, wherein the determined geographic location is a geographic location of the mobile device when determining that the authentication device is not within the maximum distance of the mobile device.

18. The method of claim 13, wherein the determined geographic location is a geographic location of the mobile device when the mobile device received a last message from the authentication device prior to determining that the authentication device is not within the maximum distance of the mobile device.

19. The method of claim 13, wherein the determined geographic location is a geographic location of the authentication device when the mobile device received a last message from the authentication device prior to determining that the authentication device is not within the maximum distance of the mobile device.

20. The method of claim 13, wherein in response to determining that the authentication device is not within the maximum distance of the mobile device, the method further comprises:

presenting, by the mobile device, an interface through which the user may request to place a financial account associated with the user on hold; and

responsive to the user requesting to place the financial account on hold, communicating with the authorization system to place the account on hold.

21. A computer-implemented method comprising:

receiving, by a mobile device from a transaction system, a request to determine whether to authorize a transaction involving a user;

determining, by the mobile device, whether to authorize the transaction based on historical authentication information generated prior to receiving the request and generated based on communication between an authentication device and the mobile device via a limited-range connection; and

notifying the transaction system, by the mobile device, of the determination as to whether to authorize the transaction.