CLAIMS

1. A method being implemented via execution of computer instructions configured to run at one or more processors and configured to be stored at one or more non-transitory computer-readable media, the method comprising:

performing, at a mobile device, a preliminary identity authentication of a consumer using the mobile device;

receiving at the mobile device first information from a point-of-sale terminal, the first information comprising a merchant identifier, a transaction identifier for a transaction, and a payment amount for the transaction, the merchant identifier uniquely corresponding to a merchant, and the mobile device running a mobile application that is associated with a consumer account of the consumer using the mobile device, the consumer account being maintained by a consumer financial institution; and

sending, from the mobile device to the consumer financial institution, a first request to (1) pay the merchant for the payment amount from the consumer account for one or more items to be purchased from the merchant by the consumer in the transaction, the first request comprising the first information, (2) cause the consumer financial institution, upon receiving the first request, to call a transaction system to determine second information comprising an account identifier of a merchant account of the merchant maintained by a merchant financial institution, and (3) cause the consumer financial institution to send to the transaction system payment information regarding a deposit to be made in the merchant account from the consumer account,

wherein:

the transaction system determines the account identifier of the merchant account using a merchant account database and the merchant identifier;

the merchant account database comprises a plurality of merchant identifiers being associated with a plurality of merchants, a plurality of account identifiers associated with the plurality of merchants, and a mapping between the plurality of merchant identifiers and the plurality of account identifiers;

the plurality of merchants comprise the merchant;

the plurality of merchant identifiers comprise the merchant identifier;

the plurality of account identifiers comprise the account identifier of the merchant account;

the payment information is routed through the transaction system to the merchant financial institution to cause the merchant financial institution, upon receiving the payment information, to notify the merchant in real-time of payment from the consumer while the consumer remains at a store of the merchant;

the transaction system is in data communication with the consumer financial institution and the merchant financial institution;

the transaction system is maintained by an entity that is different from the merchant, the consumer financial institution, and the merchant financial institution;

the payment information comprises the transaction identifier, the account identifier of the merchant account, and the payment amount;

the payment information further comprises one of: (a) a settlement credit push of funds for the payment amount from the consumer account to the merchant account, or (b) an irrevocable promise to pay the payment amount from the consumer account to the merchant account, to eliminate chargebacks to the merchant for the transaction;

the merchant does not receive an account identifier of the consumer account to increase security of the account identifier of the consumer account and to prevent fraud occurring for the consumer account resulting from the transaction;

the consumer does not receive the account identifier of the merchant account of the merchant to increase security of the account identifier of the merchant account and to prevent fraud occurring for the merchant account resulting from the transaction; and

the merchant financial institution notifies the merchant in real-time of payment from the consumer while the consumer remains at the store of the merchant by sending a notification of good funds in real-time from the merchant

financial institution to the point-of-sale terminal to indicate that the transaction has cleared.

2. The method of claim 1, further comprising: after sending the first request to pay the merchant and before the payment information is sent to the transaction system from the consumer financial institution:

receiving, at the mobile device from the consumer financial institution, an additional authentication request to perform an additional identity authentication of the consumer using the mobile device;

performing, at the mobile device, the additional identity authentication of the consumer using the mobile device; and

sending, from the mobile device to the consumer financial institution, a response to the additional authentication request.

3. The method of claim 2, wherein performing the additional identity authentication of the consumer comprises performing the additional identity authentication of the consumer based at least in part on at least one of:

determining biometrics of the consumer using the mobile device; or

requesting the consumer to enter additional information in the mobile device.

4. The method of claim 1, further comprising, prior to sending the first request to pay the merchant:

sending, from the mobile device to the consumer financial institution, a preliminary request for account information; and

receiving, at the mobile device from the consumer financial institution, the account information comprising an account balance and an account status of the consumer account.

5. The method of claim 2, wherein:

the first information further comprises an identification of the one or more items to be purchased; and

performing the additional identity authentication of the consumer further comprises:

authenticating an identity of the consumer based at least in part on the identification of the one or more items to be purchased by the consumer for the payment amount from the merchant.

6. The method of claim 3, wherein performing the additional identity authentication of the consumer further comprises:

adjusting a level of authentication based on at least one of:

the payment amount to be paid to the merchant,

whether the mobile device has previously been used by the consumer in transactions involving the consumer financial institution,

whether the biometrics of the consumer determined using the mobile device match stored biometrics of the consumer, or

whether at least one of an identity of the merchant, a location of the merchant, the payment amount, or the one or more items to be purchased is consistent with historical patterns of behavior by the consumer.

7. The method of claim 1, wherein the second information further comprises:

a name of the merchant; and

a location of the store of the merchant.

8. The method of claim 1, wherein:

the one or more items to be purchased comprise at least one of one or more goods or one or more services.

9. The method of claim 1, wherein:

the payment information further comprises a set of personally identifiable information of the consumer; and

the set of personally identifiable information is based on privacy instructions sent by the consumer from the mobile device to the consumer financial institution.

10. The method of claim 1, wherein:

the merchant identifier further uniquely corresponds to the point-of-sale terminal; and

the point-of-sale terminal is located at the store of the merchant.

11. The method of claim 1, wherein:

the first information is received from the point-of-sale terminal using a proximity-based wireless data communication protocol.

12. A system comprising:

one or more processors; and

one or more non-transitory computer-readable media storing computing instructions configured to run on the one or more processors and perform:

performing, at a mobile device, a preliminary identity authentication of a consumer using the mobile device;

receiving at the mobile device first information from a point-of-sale terminal, the first information comprising a merchant identifier, a transaction identifier for a transaction, and a payment amount for the transaction, the merchant identifier uniquely corresponding to a merchant, and the mobile device running a mobile application that is associated with a consumer account of the consumer using the mobile device, the consumer account being maintained by a consumer financial institution; and

sending, from the mobile device to the consumer financial institution, a first request to (1) pay the merchant for the payment amount from the consumer account for one or more items to be purchased from the merchant by the consumer in the transaction, the first request comprising the first information, (2) cause the consumer financial institution, upon receiving the first request, to call a transaction system to determine second information comprising an account identifier of a merchant account of the merchant maintained by a merchant financial institution, and (3) cause the consumer financial institution to send to the transaction system payment information regarding a deposit to be made in the merchant account from the consumer account,

wherein:

the transaction system determines the account identifier of the merchant account using a merchant account database and the merchant identifier;

the merchant account database comprises a plurality of merchant identifiers being associated with a plurality of merchants, a plurality of account identifiers associated with the plurality of merchants, and a mapping between the plurality of merchant identifiers and the plurality of account identifiers;

the plurality of merchants comprise the merchant;

the plurality of merchant identifiers comprise the merchant identifier;

the plurality of account identifiers comprise the account identifier of the merchant account;

the payment information is routed through the transaction system to the merchant financial institution to cause the merchant financial institution, upon receiving the payment information, to notify the merchant in real-time of payment from the consumer while the consumer remains at a store of the merchant;

the transaction system is in data communication with the consumer financial institution and the merchant financial institution;

the transaction system is maintained by an entity that is different from the merchant, the consumer financial institution, and the merchant financial institution;

the payment information comprises the transaction identifier, the account identifier of the merchant account, and the payment amount;

the payment information further comprises one of: (a) a settlement credit push of funds for the payment amount from the consumer account to the merchant account, or (b) an irrevocable promise to pay the payment amount from the consumer account to the merchant account, to eliminate chargebacks to the merchant for the transaction;

the merchant does not receive an account identifier of the consumer account to increase security of the account identifier of the consumer account and to prevent fraud occurring for the consumer account resulting from the transaction;

the consumer does not receive the account identifier of the merchant account of the merchant to increase security of the account identifier of the merchant account

and to prevent fraud occurring for the merchant account resulting from the transaction; and

the merchant financial institution notifies the merchant in real-time of payment from the consumer while the consumer remains at the store of the merchant by sending a notification of good funds in real-time from the merchant financial institution to the point-of-sale terminal to indicate that the transaction has cleared.

13. The system of claim 12, wherein the computing instructions are further configured to perform, after sending the first request to pay the merchant and before the payment information is sent to the transaction system from the consumer financial institution:

receiving, at the mobile device from the consumer financial institution, an additional authentication request to perform an additional identity authentication of the consumer using the mobile device;

performing, at the mobile device, the additional identity authentication of the consumer using the mobile device; and

sending, from the mobile device to the consumer financial institution, a response to the additional authentication request.

14. The system of claim 13, wherein performing the additional identity authentication of the consumer comprises performing the additional identity authentication of the consumer based at least in part on at least one of:

determining biometrics of the consumer using the mobile device; or

requesting the consumer to enter additional information in the mobile device.

15. The system of claim 14, wherein performing the additional identity authentication of the consumer further comprises:

adjusting a level of authentication based on at least one of:

the payment amount to be paid to the merchant,

whether the mobile device has previously been used by the consumer in transactions involving the consumer financial institution,

whether the biometrics of the consumer determined using the mobile device match stored biometrics of the consumer, or

whether at least one of an identity of the merchant, a location of the merchant, the payment amount, or the one or more items to be purchased is consistent with historical patterns of behavior by the consumer.

16. The system of claim 13, wherein:

the first information further comprises an identification of the one or more items to be purchased; and

performing the additional identity authentication of the consumer further comprises:

authenticating an identity of the consumer based at least in part on the identification of the one or more items to be purchased by the consumer for the payment amount from the merchant.

17. The system of claim 12, wherein the computing instructions are further configured to perform, prior to sending the first request to pay the merchant:

sending, from the mobile device to the consumer financial institution, a preliminary request for account information; and

receiving, at the mobile device from the consumer financial institution, the account information comprising an account balance and an account status of the consumer account.

18. The system of claim 12, wherein the second information further comprises:

a name of the merchant; and

a location of the store of the merchant.

19. The system of claim 12, wherein:

the one or more items to be purchased comprise at least one of one or more goods or one or more services.

20. The system of claim 12, wherein:

the payment information further comprises a set of personally identifiable information of the consumer; and

the set of personally identifiable information is based on privacy instructions sent by the consumer from the mobile device to the consumer financial institution.

21. The system of claim 12, wherein:

the merchant identifier further uniquely corresponds to the point-of-sale terminal; and

the point-of-sale terminal is located at the store of the merchant.

22. The system of claim 12, wherein:

the first information is received from the point-of-sale terminal using a proximity-based wireless data communication protocol.