

System And Method For Identifying A Payment Account To Process A Financial Transaction

Technical Field

[0001] The present invention relates generally to a system and a method for identifying a payment account to process a financial transaction.

Background

[0002] Mobile payments and wallet platforms are already in widespread use, and digital wallets have accelerated economic activity to unprecedented levels in recent years. Around the same time, technologies for face recognition and identification have dramatically improved; machine performances are already comparable to human level. Leveraging face or facial image as an authentication key has been pushed forward in the past few years and in certain regions of the world it found widespread use. However, pervasive use of “face” or “facial image” has also met strong opposition from privacy advocates, government and even sections of consumers. Early attempts for biometric based payment (e.g., using facial data) didn’t always highlight user’s real-time consent to access his/her payment account (e.g., a consent could be granted by the user once and then used for extended periods of time), lifetime of a data match (facial data match) or consent, opacity around source of reference images and entities who have access to data. In some markets this created a lot of confusion and suspicion around biometric based payments or other such biometric based authorizations.

[0003] There is thus a need for identifying a payment account of a user to process a financial transaction to address the above concerns and challenges. Furthermore, other desirable features and characteristics will become apparent from the subsequent detailed description and the appended claims, taken in conjunction with the accompanying drawings and this background of the disclosure.

Summary

In a first aspect, the present disclosure provides a method for identifying a payment account to process a financial transaction comprising: determining if an image of a payer taken at a location of a payee device matches a registered image of the payer in a database in communication with

a server; in response to determining that the image of the payer taken at the location of the payee device matches the registered image of the payer, determining if a location of a payer device matches the location of the payee device; and in response to determining that the location of the payer device matches the location of the payee device, identifying a payment account of the payer associated with the registered image of the payer to process the financial transaction.

[0008] In a second aspect, the present disclosure provides a system for identifying a payment account to process a financial transaction, the system comprising: at least one processor; and at least one memory including computer program code; the at least one memory and the computer program code configured to, with at least one processor, cause the server at least to: determine if an image of a payer taken at a location of a payee device matches a registered image of the payer in a database in communication with a server; in response to determining that the image of the payer taken at the location of the payee device matches the registered image of the payer, determine if a location of a payer device matches the location of the payee device; and in response to determining that the location of the payer device matches the location of the payee device, identify a payment account of the payer associated with the registered image of the payer to process the financial transaction.

[0009] Additional benefits and advantages of the disclosed embodiments will become apparent from the specification and drawings. The benefits and/or advantages may be individually obtained by the various embodiments and features of the specification and drawings, which need not all be provided in order to obtain one or more of such benefits and/or advantages.

Brief Description of the Drawings

[0010] Embodiments and implementations are provided by way of example only, and will be better understood and readily apparent to one of ordinary skill in the art from the following written description, read in conjunction with the drawings, in which:

[0011] Figure 1 shows a block diagram illustrating a system for identifying a payment account to process a financial transaction according to an embodiment of the present disclosure.

[0012] Figure 2 shows a flow chart illustrating a method for identifying a payment account to process a financial transaction according to an embodiment of the present disclosure.

[0013] Figure 3 shows a flow chart illustrating a lookup and matching process according to an embodiment of the present disclosure.

2a

[0014] Figure 4 shows a flow chart illustrating a backend lookup process according to an embodiment of the present disclosure.

Claims

1. A method for identifying a payment account to process a financial transaction comprising:
determining if an image of a payer taken at a location of a payee device matches a registered image of the payer in a database in communication with a server;
in response to determining that the image of the payer taken at the location of the payee device matches the registered image of the payer in the database, determining if a location of a payer device matches the location of the payee device; and
in response to determining that the location of the payer device matches the location of the payee device, identifying a payment account of the payer associated with the registered image of the payer to process the financial transaction.
2. The method according to claim 1, further comprising:
detecting a presence of the payer at the location of the payee device based on a physical feature of the payer in the image of the payer.
3. The method according to claim 2, wherein the step of determining if the image of the payer taken at the location of the payee device matches the registered image of the payer in the database in communication with the server comprises:
determining if the physical feature in the image of the payer taken at the location of the payee device matches the physical feature in the registered image of the payer in the database in communication with the server.
4. The method according to claim 1, wherein the step of determining if the location of the payer device matches the location of the payee device comprises:
extracting location data of the payer device and the payee device; and
determining if a distance between the location of the payer device and the location of the payee device is within a threshold distance based on the location data.
5. The method according to claim 1, further comprising:
receiving, prior to the financial transaction, a list of payees or types of business authorized to perform a determination of an image of the payer at a payee device;
determining if the payee is one of the list of payees or relates to one of the list of types of business, wherein the step of determining if the image of the payer taken at the location of the payee device matches the registered image of the payer is carried out in response to the determination of the payee being one of the list of payees or relates to one of the list of types of business.

6. The method according to claim 1, further comprising:
receiving, prior to the financial transaction, an authorization from the payer to perform a determination of the image of the payer at the location of the payee device.
7. The method according to claim 1, further comprising:
sending, to the payer device, transaction data corresponding to the financial transaction and a request for a verification of the transaction data.
8. The method according to claim 1, in response to determining that the location of the payer device matches the location of the payee device, further comprising:
sending, to the payer device, a request for a consent to send at least one of the image of the payer and information associated with account of the payer to the payee when processing the financial transaction.
9. The method according to claim 8, wherein the request comprises the image of the payer taken at the location of the payee device.
10. The method according to any one of claims 7 to 9, further comprising:
receiving, from the device of the payer, a response to the request, wherein the step of identifying the payment account of the payer associated with the registered image of the payer to process the financial transaction is carried out in response to the receipt of the response.
11. A system for identifying a payment account to process a financial transaction, the system comprising:
at least one processor; and
at least one memory including computer program code;
the at least one memory and the computer program code configured to, with at least one processor, cause the server at least to:
determine if an image of a payer taken at a location of a payee device matches a registered image of the payer stored in a database in communication with a server;
in response to determining that the image of the payer taken at the location of the payee device matches the registered image of the payer, determine if a location of a payer device matches the location of the payee device; and
in response to determining that the location of the payer device matches the location of the payee device, identify a payment account of the payer associated with the registered image of the payer to process the financial transaction.

12. The system according to claim 11, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

detect a presence of the payer at the location of the payee device based on a physical feature of the payer.

13. The system according to claim 12, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

determine if the physical feature in the image of the payer taken at the location of the payee device matches the physical feature in the registered image of the payer in the database in communication with the server.

14. The system according to claim 11, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

receive location data of the payer device and the payee device; and
determine if a distance between the location of the payer device and the location of the payee device is within a threshold distance based on the location data.

15. The system according to claim 11 wherein the at least one memory and the computer program code is further configured with the at least one processor to:

receive, prior to the financial transaction, a list of payees or types of business authorized to perform a determination of an image of the payer at a payee device; and

determine if the payee is one of the list of payees or relates to one of the list of types of business wherein the at least one memory and the computer program code is further configured with the at least one processor to determine if the image of the payer taken at the location of the payee device matches the registered image of the payer in response to determining if the payee is the one of the list of payees or relates to the one of the list of types of business.

16. The system according to claim 11 wherein the at least one memory and the computer program code is further configured with the at least one processor to:

receive, prior to the financial transaction, an authorization from the payer to perform a determination of the image of the payer at the location of the payee device.

17. The system according to claim 11 wherein the at least one memory and the computer program code is further configured with the at least one processor to:

send, to the payer device, transaction data corresponding to the financial transaction and a request for a verification of the transaction data.

18. The system according to claim 11 wherein the at least one memory and the computer program code is further configured with the at least one processor to:

send, to the payer device, a request for a consent to send at least one of the image of the payer and information associated with account of the payer to the payee when processing the financial transaction.

19. The system according to claim 18, wherein the request comprises the image of the payer taken at the location of the payee device.

20. The system according to any one of claims 14-19, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

receive, from the device of the payer, a response to the request, wherein the at least one memory and the computer program code is further configured with the at least one processor to identify the payment account of the payer associated with the registered image of the payer to process in response to the receipt of the response.