CLAIMS:

1. A method for two-stage authentication of a user of a mobile device for a payment account number transaction, the method comprising:

storing, in a storage device of a managing computer system, at least one payment account number of a user in association with a mobile device of the user;

identifying, by a processing device of the managing computer system, a location of the mobile device at a particular merchant's physical location;

providing, by the processing device, first authentication data of the user of the at least one payment account number for payment transactions with the merchant upon the mobile device entering a premises of the merchant, wherein the user is authenticated for future transactions at the merchant based upon the provided first authentication data;

storing, in the storage device, an indication that the user is authenticated based upon the provided first authentication data; and

receiving, by the processing device, second authentication data, said second authentication data received from the user as part of a payment transaction against the at least one payment account number associated with said mobile device, wherein the payment transaction is initiated at said merchant, and

wherein the user is authenticated based upon the provided first authentication data prior to the initiation of the payment transaction at said merchant.

2. The method according to claim 1 further comprising:

receiving, by the managing computer system of the financial transaction system, a request from a merchant point of sale device of the merchant for authorization for the payment transaction against the payment account number; and

determining that said first authentication data has been provided for said user for payment transactions at said merchant.

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

receiving, by the managing computer system of the financial transaction system, a request from a point of sale device of the merchant for authorization for the payment transaction against the payment account number; and

permitting the financial transaction to be processed upon determining that said first authentication data has been provided.

4. The method according to any one of claims 1 to 3, wherein identifying said location of the mobile device includes receiving, from the mobile device, information identifying a wireless local area network of the merchant upon the mobile device entering the premises of the merchant.

5. The method according to claim 4, wherein said first authentication data is provided while the mobile device detects the wireless local area network of the merchant upon the user device entering the premises of the merchant.

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

storing, in the storage device of the managing computer system, a plurality of merchants in association with information identifying their respective wireless local area networks.

7. The method according to claim 6, wherein identifying, by the processing device of the managing computer system, the location of the mobile device comprises:

receiving, by the processing device, information, from the mobile device, regarding at least one wireless local area network detected by said mobile device; and

identifying, in the storage device of the managing computer system, at least one merchant associated with said received wireless local area networks detected by said mobile device.

8. The method according to any one of claims 1 to 7 further comprising:

revoking, by the processing device, the authentication based upon said first authentication data of the user of the at least one payment account number for payment transactions at said merchant upon detection of said mobile device leaving said merchant's premises.

9. The method according to any one of claims 1 to 8, further comprising:

revoking, by said processing device, the authentication based upon said first authentication data of the user of the at least one payment account number at said merchant after a predetermined time of inactivity at said merchant.

10. The method according to claim 9, wherein said predetermined time of inactivity is preset by said user and is merchant specific, said predetermined time of inactivity being stored in said storage device of said managing computer system.

11. The method according to any one of claims 1 to 10, further comprising:

revoking, by the processing device, said first authentication based upon the first authentication data of the user of the at least one payment account number at said merchant upon said financial transaction system receiving a new physical location of said mobile device.

12. A financial transaction system for two-stage authentication of a user, comprising:

a mobile device of a user configured to transmit information regarding its geographic location;

a storage device, of a managing computer system, configured to store information associating the mobile device of the user with at least one payment account number of the user;

a computer processing device, of the managing computer system, configured to (i) receive the location information from said mobile device, (ii) identify a merchant whereat the mobile device is located, (iii) provide first authentication data of the user of the at least one payment account number associated with the mobile device for payment transactions against said at least one payment account number at said merchant whereat said mobile device is located, wherein the user is authenticated for future transactions at the merchant based upon the provided first authentication data, (iv) store, in the storage device, an indication that the user is authenticated based upon the provided first authentication data, and (v) receive second authentication data from the user as part of a financial transaction against the at least one payment account number associated with said mobile device at said merchant, wherein the user is authenticated based upon the provided first authentication data prior to the initiation of the payment transaction at said merchant.

13. The system according to claim 12 wherein the computer processor identifies the merchant upon the mobile device entering the premises of the merchant.

14. The system according to claim 12 or 13 wherein the computer processor revokes said authentication based upon the first authentication data of the user of the at least one payment account number at said merchant upon the detection of the mobile phone leaving a premises of said merchant or after a predetermined time of inactivity at said merchant.

15. The system according to any one of claims 12 to 14 wherein said location of the mobile device is identified on a basis of a detection, by the mobile device, of a wireless local area network of the merchant.

16. The system according to claim 15, wherein the mobile phone is configured to detect the wireless local area network of said merchant upon entering the premises of the merchant.

17. The system according to claim 14, wherein the detection of the mobile device leaving said merchant's premises is based upon losing detection, by said mobile phone, of a wireless local area network of the merchant.

18. The system according to any one of claims 12 to 17, wherein the computer processor revokes said authentication based upon the first authentication data of the user for payment transactions at said merchant upon receiving new physical location of said mobile device.

19. The system according to claim 18, wherein the new physical location of the mobile device is based upon information received by at least one of (i) a user's manual input of said location on said mobile device, (ii) a detection, by said mobile device, of a wireless local area network of a new merchant, and (iii) bar code information, scanned by the mobile device.

20. A non-transitory computer-readable recording medium having a program stored thereon that causes a processor of a computing device to execute the method of claim 1.