

What is claimed is:

~~1. An apparatus, comprising:~~

~~a processor circuit; and~~

~~a memory storing instructions which when executed by the processor circuit, cause the processor circuit to:~~

~~initiate, by an application executing on the processor circuit, a request to perform at least one operation related to a plurality of accounts associated with a plurality of loyalty points;~~

~~receive, by the application, encrypted data from a communications interface of a contactless card, the encrypted data based on a cryptographic algorithm and a diversified key, the diversified key based on a master key and a counter value;~~

~~receive, by the application and from a server, an indication specifying the server verified the encrypted data based on the cryptographic algorithm and the diversified key; and~~

~~in response to receiving the indication of the verification, granting authorization to perform the at least one operation, wherein the at least one operation includes at least one of i) accessing a database containing a plurality of loyalty identifiers associated with at least one user and at least two distinct accounts, each account associated with a distinct set of loyalty points and ii) storing at least one of the plurality of loyalty identifiers with respect to the at least two distinct accounts in the database.~~

~~2. The apparatus of claim 1, the memory storing instructions which when executed by the processor circuit, cause the processor circuit to:~~

~~select one of the at least two accounts; and~~

~~execute at least one operation with respect to the distinct set of loyalty points associated~~

~~with the selected account.~~

~~3. The apparatus of claim 2, wherein the at least one operation is a redemption operation.~~

~~4. The apparatus of claim 3, wherein the encrypted data received from the contactless card is based on a first tap of the contactless card to a computing device.~~

~~5. The apparatus of claim 4, wherein verification of the encrypted data is associated with a cryptogram being combined with at least one user identification associated with at least one of the plurality of accounts.~~

~~6. The apparatus of claim 5, wherein the combination is based on a logical operation.~~

~~7. The apparatus of claim 6, wherein the logical operation includes an exclusive-or operation.~~

~~8. A method comprising:~~

determining, by an application executing on a processor circuit, that a user is requesting access to a loyalty points account database;

receiving, by the application, encrypted data from a communications interface of a contactless card associated with an account, the encrypted data generated based on a cryptographic algorithm and a diversified key, the diversified key stored in a memory of the contactless card and generated based on a master key and a counter value stored in the memory of the contactless card;

receiving, by the application and from a server, a verification of the user, the verification including verifying a data combination that includes the encrypted data, the server to decrypt the data combination based on the cryptographic algorithm and the diversified key stored in a memory of the server to verify the data combination, the diversified key stored in the memory of the server generated based on a master key and a counter value stored in the memory of the server; and

responsive to receiving the verification of the user, authorizing access to a loyalty points account of the user in the database, and authorizing a redemption of a plurality of loyalty points associated with the loyalty points account.

9. The method of claim 8, the method further comprising:

transmitting a first application user credential, by the application and from a computer device associated with the processing circuit, to the server; and

prior to the decryption, comparing, at the server, the first application user credential with a second application user credential stored by the server.

10. The method of claim 9, the method further comprising:

prior to the decryption, and in response to finding a match between the first application user credential and the second application user credential, combining a loyalty identifier associated with the user with the encrypted data, and wherein the data combination includes the combination of the loyalty identifier and the encrypted data.

11. The method of claim 10, wherein the combining the loyalty identifier associated with the user with the encrypted data comprises:

performing an operation, at the server, on the received encrypted data and the loyalty identifier.

12. The method of claim 11, wherein the loyalty identifier is stored on the server.

13. The method of claim 11, wherein the operation is an exclusive-or operation.

14. The method of claim 10, the method further comprising:

generating a barcode at either i) the contactless card and ii) the computer device, wherein the generated barcode is based on a token received from the server.

15. The method of claim 14, wherein the token is based on the combination of the encrypted data and the loyalty identifier.

- ~~16. The method of claim 15, the method further comprising:~~
~~displaying the generated bar code; and~~
~~scanning the generated barcode using a scanning device.~~
- ~~17. The method of claim 16, the method further comprising:~~
~~performing the decryption of the data combination in response to the scanning of the~~
~~generated barcode.~~
- ~~18. A non-transitory computer-readable storage medium storing computer-readable program~~
~~code executable by a processor circuit to cause the processor circuit to:~~
~~initiate a request to perform at least one operation related to a plurality of accounts~~
~~associated with a plurality of loyalty points;~~
~~receive encrypted data from a contactless card, the encrypted data based on a~~
~~cryptographic algorithm and a diversified key, the diversified key based on a master~~
~~key and a counter value;~~
~~receive, from a server, an indication that the server verified the encrypted data based on the~~
~~cryptographic algorithm and the diversified key; and~~
~~in response to receiving the verification, granting authorization to perform the at least one~~
~~operation, wherein the at least one operation includes at least one of i) accessing a~~
~~database containing a plurality of loyalty identifiers associated with at least one user~~
~~and at least two distinct accounts, each account associated with a distinct set of~~
~~loyalty points and ii) storing at least one of the plurality of loyalty identifiers with~~
~~respect to the at least two distinct accounts in the database.~~
- ~~19. The computer-readable storage medium of claim 18, further including computer-~~
~~readable~~
~~program code executable by the processor circuit to cause the processor circuit to:~~
~~receive a token from the server.~~
- ~~20. The computer-readable storage medium of claim 19, further including computer-~~
~~readable~~
~~program code executable by the processor circuit to cause the processor circuit to:~~
~~generate a barcode based on the token received from the server.~~

1. A method comprising:
receiving, by an application executing on a processor circuit, a request to access a
loyalty points account;
receiving, by the application, encrypted data from a contactless card associated with an
account;

transmitting, by the application to a server, the encrypted data;
receiving, by the application and from the server, a decryption result;
determining, by the application based on the decryption result, that the server decrypted the encrypted data;

displaying, by the application based on the determination that the server decrypted the encrypted data, a plurality of points of the loyalty points account;

receiving, by the application, a redemption request comprising one or more of the plurality of loyalty points; and

authorizing, by the application based on the determination that the server decrypted the encrypted data, the redemption request.

2. The method of claim 1, further comprising:

transmitting, by the application, a first application user credential to the server; and
comparing, by the server, the first application user credential with a second application user credential.

3. The method of claim 2, further comprising:

determining, by the server based on the comparison, that the first application user credential matches the second application user credential; and

combining, by the server, a loyalty identifier with the encrypted data.

4. The method of claim 3, wherein combining the loyalty identifier with the encrypted data comprises:

performing, by the server, an exclusive-or operation on the encrypted data and the loyalty identifier.

5. The method of claim 4, further comprising storing the loyalty identifier by the server.

6. The method of claim 3, further comprising:

generating a token by the server based on the combination of the encrypted data and the loyalty identifier.

7. The method of claim 6, further comprising:

receiving, by the application, the token from the server; and
generating, by the application, a barcode based on the token.

8. The method of claim 7, further comprising:

displaying, by the application, the barcode; and
scanning, by a scanning device, the barcode.

9. The method of claim 8, further comprising:

decrypting the token by the scanning device.

10. A system, comprising:

a processor; and

a memory storing instructions which when executed by the processor cause the processor to:

receive a request to access a loyalty points account;
receive encrypted data from a contactless card associated with an account;
transmit, to a server, the encrypted data;
receive, from the server, a decryption result;
determine, based on the decryption result, that the server decrypted the
encrypted data;
display, based on the determination that the server decrypted the encrypted data,
a plurality of points of the loyalty points account;
receive a redemption request comprising one or more of the plurality of loyalty
points; and
authorize, based on the determination that the server decrypted the encrypted
data, the redemption request.

11. The system of claim 10, the memory storing instructions which when executed by the processor cause the processor to:

transmit a first application user credential to the server; and
receive a token from the server.

12. The system of claim 11, the memory storing instructions which when executed by the processor cause the processor to:

generate a barcode based on the token.

13. The system of claim 12, the memory storing instructions which when executed by the processor cause the processor to:

display the barcode on a display.

14. The system of claim 12, wherein the token is based on a combination of the encrypted data and a loyalty identifier associated with the account.

15. A computer-readable storage medium comprising computer-readable program code that when executed by a processor cause the processor to:

receive a request to access a loyalty points account;
receive encrypted data from a contactless card associated with an account;
transmit, to a server, the encrypted data;
receive, from the server, a decryption result;
determine, based on the decryption result, that the server decrypted the encrypted data;
display, based on the determination that the server decrypted the encrypted data, a

plurality of points of the loyalty points account;

receive a redemption request comprising one or more of the plurality of loyalty points;

and

authorize, based on the determination that the server decrypted the encrypted data, the redemption request.

16. The computer-readable storage medium of claim 15, comprising computer-readable program code that when executed by the processor cause the processor to:
transmit a first application user credential to the server; and
receive a token from the server.
17. The computer-readable storage medium of claim 16, comprising computer-readable program code that when executed by the processor cause the processor to:
generate a barcode based on the token.
18. The computer-readable storage medium of claim 16, wherein the token is based on the encrypted data and a loyalty identifier associated with the account.
19. The computer-readable storage medium of claim 18, wherein the token is based on an exclusive-or operation performed based on the encrypted data and the loyalty identifier.
20. The computer-readable storage medium of claim 17, comprising computer-readable program code that when executed by the processor cause the processor to:
display the barcode on a display.