[0008a] According to a first aspect of the present disclosure, there is provided a contactless card communicatively coupled, via wireless communication, to an application comprising instructions for execution on a receiving device, the contactless card including: a processor; and a memory containing a card key and transmission data, wherein the card key is generated by diversifying a master key with a unique card identifier, wherein the processor is configured to: encrypt the transmission data using a cryptographic algorithm and the card key to yield encrypted transmission data, and transmit the encrypted transmission data to the application, the application being configured to initiate one or more processes in response to a validation of the encrypted transmission data.

[0008b] According to a second aspect of the present disclosure, there is provided a method, including the steps of: encrypting, by a processor of a contactless card, transmission data using a cryptographic algorithm and a card key to yield encrypted transmission data, the encrypted transmission data and the card key being stored on the contactless card; transmitting, by the processor, the encrypted transmission data to an application comprising instructions for execution on a receiving device in wireless communication with the contactless card; transmitting, by the application, the encrypted transmission data for validation to a server; and initiating, in response to a successful validation of the encrypted transmission data by the server, an authentication of one or more electronically generated images associated with a transportation ticket, by the application.

[0008c] According to a third aspect of the present disclosure, there is provided a system, including: a contactless card including a processor and a memory, wherein the memory contains a card key and transmission data, wherein the card key is generated by diversifying a master key with a unique card identifier, a counter value, and transmission data; and a server communicatively coupled with a receiving device, wherein, after entry into a communication field of the receiving device, the contactless card is configured to: generate a diversified card key by diversifying the card key with the counter value, encrypt the transmission data using a cryptographic algorithm and the diversified card key to yield encrypted transmission data, transmit the encrypted transmission data to the server via an application comprising instructions for execution on the receiving device, the server being configured to: decrypt the encrypted transmission data using the unique card identifier, the counter value and the master key,

authenticate the contactless card based on a verification of decrypted transmission data, and initiate, via the application, one or more actions.

[0009] Disclosed herein is a method of securing one or more processes using a transmitting device and an application comprising instructions for execution on a receiving device, the method comprising the steps of: generating a diversified key using a diversified master key, one or more cryptographic algorithms, and a counter value, the transmitting device comprising a processor and memory, the memory of the transmitting device containing the diversified master key, transmission data, and the counter value; generating a cryptographic result including the counter value using the one or more cryptographic algorithms and the diversified key; encrypting the transmission data using the one or more cryptographic algorithms and the diversified key to

CLAIMS

1. A contactless card communicatively coupled, via wireless communication, to an application comprising instructions for execution on a receiving device, the contactless card comprising:

a processor; and

a memory containing a card key and transmission data, wherein the card key is generated by diversifying a master key with a unique card identifier,

wherein the processor is configured to:

encrypt the transmission data using a cryptographic algorithm and the card key to yield encrypted transmission data, and

transmit the encrypted transmission data to the application, the application being configured to initiate one or more processes in response to a validation of the encrypted transmission data.

2. The contactless card of claim 1, wherein at least one of the one or more processes comprises a transmission of a request for language information.

3. The contactless card of claim 2, wherein the request for language information comprises a request for a translation of text.

4. The contactless card of claim 3, wherein the translation of text comprises at least one selected from the group of translation of text from a non-English language to English and translation of text from English to a non-English language.

5. The contactless card of claim 1, wherein at least one of the one or more processes comprises a transmission of a request for venue information.

6. The contactless card of claim 5, wherein the venue information is associated with at least one venue selected from the group of an airport lounge, a restaurant, a gas station, and a shop.

7. The contactless card of claim 1, wherein the validation of the encrypted transmission data is performed by a server communicatively coupled to the receiving device via a network.

8. The contactless card of claim 1, wherein at least one of the one or more processes corresponds to an authentication of an electronically generated image associated with a transportation ticket.

9. The contactless card of claim 1, wherein at least one of the one or more processes comprises converting a purchase amount from a first currency to a second currency.

10. The contactless card of claim 9, wherein converting a purchase amount from a first currency to a second currency comprises at least one selected from the group of converting a purchase amount from a non-U.S. dollar currency to U.S. dollars and converting U.S. dollars to a non-U.S. dollar currency.

11. The contactless card of claim 1, wherein at least one of the one or more processes comprises a retrieval of one or more user preference data stored on the contactless card.

12. A method, comprising the steps of:

encrypting, by a processor of a contactless card, transmission data using a cryptographic algorithm and a card key to yield encrypted transmission data, the encrypted transmission data and the card key being stored on the contactless card;

transmitting, by the processor, the encrypted transmission data to an application comprising instructions for execution on a receiving device in wireless communication with the contactless card;

transmitting, by the application, the encrypted transmission data for validation to a server; and

initiating, in response to a successful validation of the encrypted transmission data by the server, an authentication of one or more electronically generated images associated with a transportation ticket, by the application.

13. The method of claim 12, further comprising initiating, in response to the successful validation of the encrypted transmission data, a transmission of a request for a translation of text from a first language to a second language.

14. The method of claim 12, further comprising initiating, in response to the validation of the encrypted transmission data, a conversion of a purchase amount from a first currency to a second currency.

15. A system, comprising:

a contactless card comprising a processor and a memory, wherein the memory contains a card key and transmission data, wherein the card key is generated by diversifying a master key with a unique card identifier, a counter value, and transmission data; and

a server communicatively coupled with a receiving device,

wherein, after entry into a communication field of the receiving device, the contactless card is configured to:

generate a diversified card key by diversifying the card key with the counter value,

encrypt the transmission data using a cryptographic algorithm and the diversified card key to yield encrypted transmission data,

transmit the encrypted transmission data to the server via an application comprising instructions for execution on the receiving device, the server being configured to:

decrypt the encrypted transmission data using the unique card identifier, the counter value and the master key,

authenticate the contactless card based on a verification of decrypted transmission data, and

initiate, via the application, one or more actions.

16. The system of claim 15, wherein at least one of the one or more actions corresponds to a transmission of a request for a translation of text from a first language to a second language.

17. The system of claim 16, wherein the server is configured to host a form including the text in the first language and the second language.

18. The system of claim 15, wherein:

at least one of the one or more actions corresponds to a transmission of a request for venue information, and

the venue information is associated with at least one venue selected from the group of an airport lounge, a restaurant, a gas station, and a shop.

19. The system of claim 18, wherein at least one of the one or more actions corresponds to an authentication of one or more electronically generated images associated with a transportation ticket.

20. The system of claim 15, wherein the receiving device comprises at least one selected from the group of a point-of-sale device, a kiosk, a terminal, a tablet, a mobile device, and a network-enabled computer.