(transponder, badge, card, etc.) by performing one-tap authentication or one-tap payment, or both, via the contactless card. Thus, even under time-constrained circumstances, payment may be loaded to the in-vehicle device in a quick, efficient, and safe manner.

[0005a] According to one aspect, there is provided a system for value loading onto an in-vehicle device, the system comprising the in-vehicle device and a computing device comprising: a near-field communication (NFC) reader; a memory storing one or more instructions; and one or more processors, coupled with the memory, operable to execute the one or more instructions, that when executed, cause the one or more processors to: receive a unique identifier associated with the in-vehicle device; receive information for accessing an account associated with the in-vehicle device; and access the account associated with the in-vehicle device based on the received information and the unique identifier of the in-vehicle device. The system also includes a contactless card comprising: a memory storing one or more instructions; at least one communication interface; and one or more processors, coupled with the memory, operable to execute the one or more instructions, that when executed, cause the one or more processors to: determine whether the at least one communication interface is in near-field communication (NFC) communication with the NFC reader of the computing device; and load or reload the account associated with the in-vehicle device with funds of a predetermined value or amount.

[0005b] According to another aspect, there is provided a system for value loading onto an in-vehicle device, comprising a contactless card comprising: memory storing one or more instructions; at least one communication interface; and one or more processors, coupled with the memory, operable to execute the one or more instructions, that when executed, cause the one or more processors to: determine (i) whether the at least one communication interface is in near-field communication (NFC) communication with an NFC reader of an in-vehicle device or (ii) whether the at least one communication interface is in operative communication with the in-vehicle device via an insert interface of the in-vehicle device; and link a banking account associated with the contactless card to an account associated with the in-vehicle device or allow funds in the banking account to be accessed by the in-vehicle device for loading the account associated with the in-vehicle device.

[0005c] According to another aspect, there is provided a system for value loading onto an in-vehicle device, the system comprising a contactless card comprising: memory storing one or more instructions; at least one communication interface; and one or more processors, coupled with the memory, operable to execute the one or more instructions, that when executed, cause the one or more processors to:

determine whether the at least one communication interface is in near-field communication (NFC) communication with an NFC reader; provide authentication information. The system also includes a vehicle computing device comprising: memory storing one or more instructions; one or more processors, coupled with the memory, operable to execute the one or more instructions, that when executed, cause the one or more processors to: receive authentication information from the contactless card; and transmit the authentication information to an external reader via an in-vehicle device.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] **FIG. 1A** illustrates an example data transmission system in accordance with one or more embodiments.

[0007] **FIG**. **1B** illustrates an example sequence diagram for providing authenticated access in accordance with one or more embodiments.

[0008] **FIG. 2** illustrates an example system using a contactless card in accordance with one or more embodiments.

[0009] **FIG. 3A** illustrates an example contactless card in accordance with one or more embodiments.

[0010] **FIG. 3B** illustrates an example contact pad of a contactless card in accordance with one or more embodiments.

[0011] **FIG. 4** illustrates an example sequence diagram relating to secure password generation in accordance with one or more embodiments.

[0012] **FIG. 5** illustrates an example password generation for a password manager application in accordance with one or more embodiments.

[0013] **FIG. 6** illustrates another example of a sequence diagram relating to secure password generation in accordance with one or more embodiments.

[0014] **FIG. 7** illustrates another example of password generation for a website in accordance with one or more embodiments.

DETAILED DESCRIPTION

[0015] Various embodiments are generally directed to a system for loading value (e.g., money) onto an in-vehicle device using at least a contactless near-field communication (NFC) smartcard. In examples, the in-vehicle device may be any suitable