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(54) Title: CONTACTLESS CARD PERSONAL IDENTIFICATION SYSTEM

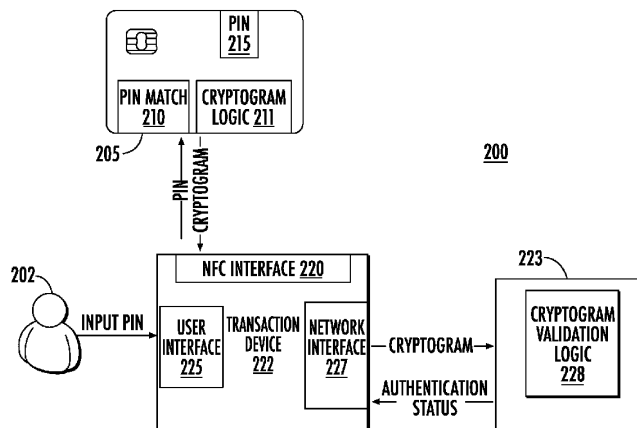


FIG. 2A

(57) Abstract: A dual-factor PIN based authentication system and method uses a cryptogram provided by a contactless card associated with the client in association with a PIN stored by the contactless card to authenticate the client. In some embodiments, cryptogram authentication may be preconditioned upon a PIN match determination by the contactless card. In other embodiments, the cryptogram may be formed at least in part using the personal identification number (PIN) stored on the contactless card encoded using a dynamic key stored by the contactless card and uniquely associated with the client. Authentication may be achieved by comparing the cryptogram formed using the PIN against an expected cryptogram generated an expected PIN and an expected dynamic key.

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