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(57) Abstract :

The present disclosure provides a system for secure storage and access of digital credentials on computing devices (102). The system (100) encompasses a virtual smart card manager (104) for managing virtual smart cards tied to digital identities, a virtual smart card emulator (106) for authentication, a server (108) for storing credentials, and a processor (110). The processor (110) interacts with the virtual smart card manager, virtual smart card emulator, and the virtual smart card server, validating user requests to activate, deactivate, or revoke virtual smart cards. Also, retrieves stored credentials from the server and generates cryptographic keys for secure authentication. The processor also facilitates secure communication with external systems, employing encryption keys associated with the active virtual smart card, decrypts encrypted data from the external system and supports multi-factor authentication.

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