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ABSTRACT

A system that incorporates the subject disclosure may include instructions which when executed cause a device processor to perform operations comprising sending a service request to a remote management server; receiving from the management server an authentication management function and an encryption key generator for execution by a secure element and an encryption engine for execution by a secure device processor, sending a request to establish a communication session with a remote device; and communicating with the remote device via a channel established using an application server. The secure element and the secure device processor authenticate each other using a mutual authentication keyset. The secure element, the secure device processor and the device processor each have a security level associated therewith; the security level associated with the secure device processor is intermediate between that of the secure element and that of the device processor. Other embodiments are disclosed.

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