



Payments with Smart Mobiles as Point Of Sales Terminals and Security

A REPORT FROM NEWNET COMMUNICATION TECHNOLOGIES, LLC



Payments with Smart Mobiles as Point Of Sales Terminals

Payment devices have undergone rapid transformation with the advent of smart mobile devices with advanced graphical user interfaces, high resolution displays and smart user authentication capabilities. With the latest PCI standards to support PIN entry on smart touch devices, the grand mainstream is now open for the millions of smart mobile devices to become payment terminals or payment devices acting as Smart Point of Sale terminal or Smart POS, for accepting payments. The key requirements for the floodgates to open include smart, user friendly and exciting payment application tailored for the respective payment user interactions, ergonomic end user device designs, and intelligent security solution to ensure the overall security of payments through these devices.

Android, iOS, Windows based Smart Mobile devices acting as “Smart POS” with user centric payment applications have emerged as the de-facto standard of rapidly growing, high volume, evolving mobile payments across the world. The necessity to ensure standards based security of the transactions from these devices, providing protection to the sensitive payment data as collected on these devices and the merchants’ systems dealing with the transactions are very critical for end to end security. Payments from Smart POS are typically based on REST/JSON, HTTPS/JSON, HTTPS/XML based messaging protocols. The ability of payment routing infrastructure systems to handle these protocols and route these payments with standards based security to the existing Authorization Servers with suitable protocol translation is key to seamless deployment of these payment devices, and faster adoption.

Security of Payment from Smart POS & NewNet STC

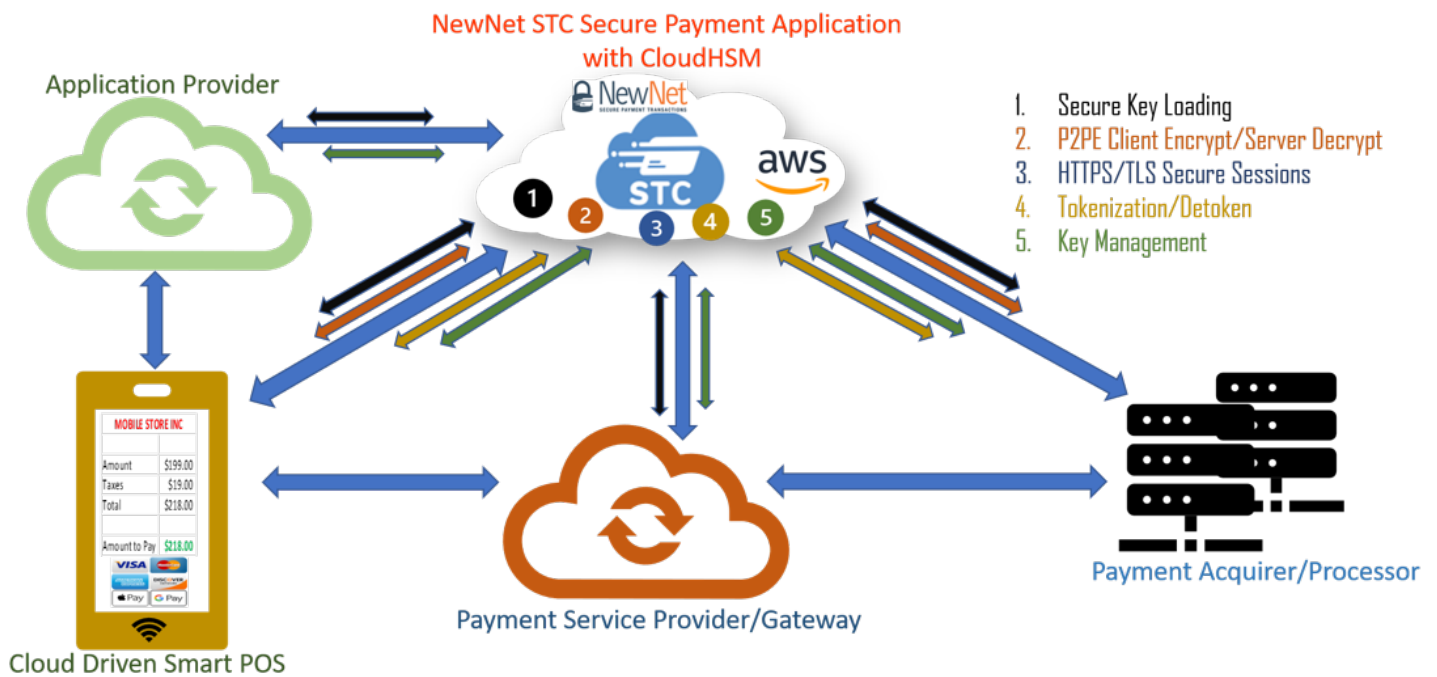
NewNet offers enhanced payment security solutions for providing security of payment transactions from Smart POS terminals together with support for the specific messaging protocols. NewNet’s STC application is an industry first payment application in cloud for securely acquiring, aggregating, and transporting millions of mobile, broadband, web based POS/ATM transactions, m-commerce and e-commerce payments transactions, mobile wallet payments etc. STC application in the public or private cloud along with CloudHSM delivers the fundamental security capabilities needed to enable safe and reliable transport of financial transactions, security verification, multi-level security for the payment transactions which requires high levels of standards based data encryption, as payment traverses over many network types.

NewNet’s STC application offers multiple security and payment handling capabilities to provide overall payment security and compliance to security standards for the Smart POS devices based on Android, iOS, Windows OS having mobile payment applications. STC application can be leveraged extensively by Smart POS deploying payment entities including Smart POS device/application vendors, Payment Gateways/PSPs, MNOs and also Acquirers/Banks leasing/renting these smart devices to retail merchant location or similar payment interaction centers.

STC's major security functions for supporting the compliance needs of the Smart POS include the following capabilities listed here and are met in strict conformance to the PCI standards. STC works in close conjunction with the CloudHSM in the public/private cloud environments for accomplishing each of these security requirements. CloudHSM is a FIPS 140-2 Level 2, 3 certified virtualized cryptographic module in the cloud.

- Secure Key Loading to Smart Devices
- HTTPS/TLS based data exchange
- P2PE Client for Data Encryption
- Tokenization for Merchant Datastore
- Secure REST/JSON API interface
- High Security Key Management

STC offers smart API integration mechanisms for faster deployment of services for the various payment entities deploying the Smart POS devices. The diagram below details the NewNet STC application in the cloud operating with AWS CloudHSM and offering the security functions for Smart POS and enabling payment acceptance with high level of security and compliance to the standards.



STC combines additional payment aggregation capabilities which are integrated with the application for extensive payment functions towards transporting and routing the secure transactions from Smart POS devices to the PSPs, Acquirers, Processors, Banks.

The major functional capabilities in this category include those listed below.

- Load balancing the Smart POS traffic
- TLS Acceleration
- Protocol Translation matching Authorization Server
- Load sharing to Authorizing Hosts
- Web payments transport

NewNet Value to Payment Ecosystem with Smart POS

NewNet solutions unleash the power for millions of mobile devices to securely operate with hundreds of payment applications for merchant POS transactions at the multiple industry verticals including Retail stores, Healthcare, Hospitality, Restaurants, GigEconomy users, Transportation, Entertainment, Travel and much more.

With the crucial security aspects being addressed by the NewNet STC solution, the millions of mobile devices could be seamlessly employed for smart payment acceptance at all global geographies and spanning a multitude of business scenarios. Working together with the solution providers, NewNet application operating on the major cloud service providers together with the CloudHSM, enables the payment solution providers to have their service deliveries to be fully compliant and obtain certifications corresponding to the PCI standards.

Leveraging our global deployments and interactions with the leading Acquirers, Processors across the world, NewNet ensures the rapid integration and seamless interfacing with the backend Acquirers, Processors and Banks to be a smooth and easy process, saving big in terms of time and money required otherwise. Great Mobile application providers and Mobile device manufacturers have a new way to form part of the payment ecosystem in the smart mobile based POS revolution. Mobile Network Operators which would facilitate the mobile data connectivity of these millions of mobile smart devices would find a great opportunity to power up the merchant payment terminals with these smart devices on their networks and realize tremendous new revenue generating opportunities. Payment Service Providers, Payment Gateways also have a great potential to leverage this opportunity.

NewNet's payment security solution in the cloud will be an ideal partner in all of these ventures with proven deployments worldwide, backed by significant years of payment and security expertise. Our solutions deployed with our customers handle 1 in 4 transactions worldwide and are deployed by several of the Global Top 25 Acquirers/Processors.

About NewNet Communication Technologies, LLC

NewNet Secure Transactions is a recognized global provider of secure transaction routing and transport. NewNet delivers reliable and scalable transaction transport from consumer initiated devices and tokenization of sensitive data. Reliable and scalable transaction transport and routing systems ensure the security of transaction data flowing through the public dial, broadband and mobile networks around the world. NewNet focuses solution delivery to FinTech, Cloud Services and Telco enterprises.

For further information, visit

www.newnet.com

or email

traxcominfo@newnet.com

