A top 10 global payment acquirer who processes billions of transactions annually, makes the migration to cloud-based infrastructure and adopts NewNet’s Secure Transaction Cloud (STC).

The Top 10 Global processor is a multi-brand acquirer with connectivity requirements to several endpoints including credit, debit and benefit card authorization hosts. Technology solutions delivered by the Acquirer include merchant processing, transaction capture, transmission, routing and settlement of credit and debit card transactions. A full-service provider, the acquirer processor also delivers programs like prepayment of receivables to merchants, POS terminal deployment services, check verification through POS terminals, and the capture and transmission of transactions using benefit-vouchers, private-label cards and loyalty programs.

NewNet’s STC products were selected to deliver virtualized secure payment transaction transport, routing and switching as well as virtualized hardware security modules. NewNet’s STC delivers benefits that include heightened security, faster transaction throughput, unmatched resiliency, seamless expansion and economic efficiencies.

**Requirement/Challenges to Solve For:**

The technology team for the top-10 global acquirer processor was charged with evaluating and executing on a technology roadmap to improve infrastructure, reduce per unit costs, gain speed to market and minimize upfront costs to support the organizations high growth trajectory. Areas of focus included:

**Capacity for Transaction Volume Growth:** Historical volumes reflect steady growth in payment traffic with a phenomenal increase in transaction volume origination from internet and mobile payments from several million payment devices. Total transaction processing volumes exceed several billion transactions annually. As the Top 10 processor continues to deploy advanced payment terminals to meet the growth, there is a significant growth requirement predicted in future transaction volume.

**Performance & Reliability:** It is of paramount importance to deliver and sustain performance availability and highly scalable payment processing systems to support the routing and transport of billions of transactions and 100’s of billions of dollars annually. Systems and solutions must have the scalability to expand to meet the higher demands of performance over the years.

**Redundancy:** Operating with the best in breed virtualized and hybrid networks, the solution for payment processing must be integrated closely with the existing acquirer / processor network and must have the highest level of redundancy to suit deployment and payment service models. The need is for a system that can deliver global services uninterrupted and continuously, meet international standards of security and support all relevant security and payment protocols.

The other generic challenges to solve for:

- Reduce per transaction costs as scale is achieved
- Address risk of fraud and the resulting cost of charge backs
- Meet ever evolving regulatory compliance
The Selected Solution

To address technical requirements, minimize upfront capital investments and gain pay as you grow solutions, the acquirer/processor selected a NewNet configuration that includes multiple STC instances consumed in an AWS cloud environment integrated with AWS CloudHSM solutions for security, performance and redundancy. The deployed configuration includes the Common Element Manager (CEM) admin system which is a graphical tool for configuration, management, monitoring etc., and AccessView Cloud Edition application deployed in AWS allowing access to all call data records generated and support statistics, reporting and transaction analytics.

NewNet STC Benefits Accruing to the Top 10 Global Processor

Payment client terminals and devices like IP/Wireless POS, Smart POS/mPOS, Mobile payment application devices interface with STC in an extremely straightforward, easy to consume manner, requiring no modification to the residing payment application on the device population with IP connections. The cloud-based deployment of STC provided the perfect platform for client device integrations. Key Benefits include:

1. **Instant Payment Application Maintenance**
   Ability to update the central application for further administration of downloads to tens of thousands of deployed POS devices and have the updates percolated to the POS devices via STC.

2. **Optimum Processing Power**
   Cloud deployments have almost limitless and scalable processing capability and storage ensure transaction processing is optimized.

3. **Leverage Cloud Infrastructure**
   STC, with its relevant cloud infrastructure, offers significant benefits to the processing and acquiring transaction processing industry segment including:
   - Geographically agnostic
   - Scalability with rapid creation of additional instances
   - STC is centrally monitored and always current to regulatory requirements
   - Extremely secure/disaster recovery capability, and
   - Elastic computing - pay for the usage and grow on demand
NewNet’s STC Solution for the FinTech Industry

NewNet has delivered switching, routing, transport and hardware crypto solutions to payment solution providers, acquirers, and retailers for decades. Expanding further on these successful technology solutions, NewNet has led the emergence of cloud-based solutions.

Capturing a market where clients demand higher security, faster switching, and lower ongoing costs, NewNet has virtualized its hardware capability. The result is the STC, cloud-based virtualized, software version of the Company’s market-leading switching, routing and hardware crypto product suite. The global Top 10 Acquirer and Processor utilizes the rich capabilities of STC to support the multiple payment types and payment devices in their network.

IP/Wireless POS/ATM: NewNet’s advanced payment transport and routing capabilities on the STC payment application enables to support secure and standards-based payment processing for multiple IP/Wireless POS, ATM terminals with faster completion of transactions. Additional encryption capabilities for securing the mobile device-based transaction with complete end to end encryption of transactions with virtualized hardware crypto module make this solution a favorite from the security perspective.

Internet/Web Payment: High volume, high speed processing capability equipped NewNet STC application offered for delivering advanced industry standards-based security capability and support major expansions and newer service for the future growth anticipated in the network. NewNet’s delivers software customizations for rapid deployment of new TLS & HTTPS services with compatibility for legacy server interfaces.

Smart POS/mPOS: Based on growth predictions and for offering services to some of the major merchants and institutions in the country, the ability to handle high volume of transactions per month from the newly introduced Smart POS with user friendly payment applications is a key challenge. Industry proven, and the highly rated STC transaction transport application enables the service delivery for this challenging requirement with capability to handle over 2 Million busy hour transactions per application instance at full capacity, which is a significantly high volume in the industry for short duration transactions.