***Three Servers and Counting: OmniPayments Invests in NonStop X***

### Janice Reeder-Highleyman

### *Principal*, Reeders & Writers

### Inline image 1Yash Kapadia loves, loves, loves the NonStop X. As the CEO of OmniPayments LLC, Yash and his company became the first NonStop partner to take possession of a NonStop X server. That was late 2014. Two more NonStop X servers later, Yash’s projected business growth indicates a near-future need of additional NonStop X systems to enhance OmniPayments provisions for high-speed, multi-platform solutions of its standalone and cloud-based Financial Transaction Switch.

### Yash is thinking six more NonStop Xs. What will he do with all that speed and performance?

Yash Kapadia

### Introducing OmniPayments LLC

### OmniPayments LLC ([www.omnipayments.com](http://www.omnipayments.com)) is the product arm of Opsol Integrators Inc., a leading HPE NonStop system integrator. Opsol was founded by Yash in 1995, shortly after he left his role as a senior developer and project manager at Tandem Computers. Opsol is short for “Open Solutions,” and its team of 100+ NonStop developers specialize in porting open-source solutions to NonStop servers running under OSS (Open System Services).

### In 2008, ACI Worldwide announced the sunset of its BASE24 financial-transaction switch on NonStop servers. Ending as well was ACI’s support for existing NonStop BASE24 applications. In the ensuing panic among BASE24 customers, Yash saw an opportunity to create a BASE24 replacement. Opsol already had a head start in that its existing business modules - OmniATM, OmniMessaging, OmniHub, and OmniCrypto - were installed in numerous locations worldwide. The four products, all flexible and customizable, formed the basis for what is now the OmniPayments Financial Transaction Switch. Additional modules were created to complete the SOA-compatible, layered design.

### So large was the potential market that Yash established OmniPayments as a separate company focusing on payment transactions. Today, OmniPayments systems process 700 million transactions per month, generated by point-of-sales terminals and over 14,000 ATMs. A single OmniPayments system supports up to 10,000 transactions per second. Multiple OmniPayments systems can cooperate to provide any capacity required by an application. From seven worldwide locations, OmniPayments serves as a 24×7 managed services provider for remote production monitoring.

### Migration Case Study

### In 2009, the first BASE24 to OmniPayments migration was made by a large U.S. bank. It already was an Opsol customer through its use of OmniATM, which supported the bank’s extensive ATM network. The bank also was a BASE24 customer. OmniATM is feature-rich and provided a level of tailored functionality that was not available from BASE24. It interfaced seamlessly not only with the BASE24 authorization system on NonStop for not-on-us transactions but also with the bank’s IBM authorization system for on-us transactions.

### When the BASE24 sunset was announced, the bank turned to Opsol’s new OmniPayments switch as a possible alternative. OmniATM is a major component of OmniPayments, and its existing incorporation within the bank’s debit/credit card authorization system eased what already would have been a smooth transition from BASE24 to OmniPayments. With no disruption for customers, OmniPayments went active within the bank’s deadline and communicated effortlessly with ten interchange networks, including Visa, MasterCard, PULSE, and STAR.

### The OmniPayments Financial Transaction Switch – A Modular, Flexible Approach to Payment Solutions

OmniPayments offers all the requisite functionality to manage credit/debit-card transactions. It manages multiple devices, hosts application interfaces, and interoperates with third-party products or other systems if required. OmniPayments easily expands to provide additional functionality when needed and supplies complete security functions for every financial transaction handled, including encryption-at-rest and encryption-in-flight. Available around the clock, OmniPayments will survive any single fault, requires no downtime for maintenance or upgrades, and supports a range of disaster-recovery products.

OmniPayments can be installed either as a complete, off-the-shelf solution or can be enhanced with customer-requested modifications and features to improve cost-effectiveness, efficiency, and risk mitigation.

 OmniPayments is a component-based software design that permits the creation of flexible business services, the kind that users can develop and deploy quickly to enhance the customer experience.  The core of OmniPayments is a set of Business Logic Modules, or BLMs.  As a whole, they comprise the OMNIs, whose open architecture (SOA) allows OmniPayments’ building blocks and business modules to interact not only with each other but also with existing in-house systems and third-party solutions. While all components are included within OmniPayments, some can be purchased separately.

At the heart of OmniPayments is its Payment Engine, which supports ATMs, POS terminals, transaction authorization, stand-in authorization, settlement, and card management, among many other functions. The Payment Engine runs on NonStop servers, as does OmniDirector, a rules-based routing engine, and the OmniAuth Preauthorization Engine.

Other less critical OmniPayments modules run on Red Hat Enterprise Linux (x86 RHEL). The OmniOffender system monitor and the OmniDash business monitor offer 24/7 real-time views of all OmniPayments functions. Another module, the Customer Experience Hub, integrates with the Payment Engine and is implemented via a “party model” database. This furnishes the power to fuse many products and customer services, including loyalty modules, customized bill payment modules, etc.

The NonStop X Advantage

In the past, OmniPayments NonStop applications and the x86 RHEL applications ran on different blade systems. NonStop servers communicated over ServerNet, Linux applications communicated over Infiniband, and no intercommunication existed between the platforms. By placing the OmniPayments Financial Transaction Switch on NonStop X, OmniPayments can incorporate a NonStop X Payment Engine and the RHEL modules within the same cabinet. This significantly increases OmniPayments’ transaction capacity and speeds up the Customer Experience Hub.

# OmniPayments Optimizes Its Software Stack to Reduce TCO

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| *No Pathway License* | OmniPayments built its own NonStop checkpointed application monitor. |
| *No Replication Software License* | OmniPayments created its own replication software. |
| *No External Monitoring Software* | OmniPayments provides OmniOffender, its own monitoring software.  |
| *Discounted SQL/MX License* | OmniPayments bundles SQL/MX at a discounted HPE license fee and passes the saving to customers. |
| *Thin Client Model* | OmniPayments uses the thin client model for ATM driving to reduce the costs of software delivery. |

# The OmniPayments 50%-Less Guarantee: How Do We Do That?

OmniPayments sells its popular financial transaction switch at a price that guarantees 50% off a company’s current transaction costs. How does OmniPayments do that? Unlike other switch providers, who base costs on transaction volume, OmniPayments sells a one-time, perpetual software license. That pricing model is what makes the “50%-Less” difference. No volume fees. No transaction fees. No surprises. No penalties for company growth. All prices are presented up front.

### The OmniPayments Financial Transaction Switch Lives in OmniCloudX

It’s affordable, scalable, continuously available, and it’s pay-as-you-go. OmniCloudX on NonStop X hosts numerous instances of the OmniPayments financial transaction switch at a price so attractive that mid-size retailers and financial institutions can enjoy the benefits of having their own high-capacity transaction switches, a luxury until now limited to their larger counterparts.

According to Yash Kapadia, OmniPayments’ first private cloud was built in Northern California. It continues to serve as an active/active backup for several customers of the company’s standalone switch and also is the host platform for ITUGLIB, Connect’s library of user-contributed freeware and other software utilities. OmniPayments provides at no cost ITUGLIB’s processing capacity, maintenance, power, and bandwidth.

In 2015, the company introduced OmniCloudX as a SaaS cloud platform implemented on NonStop X. It provides affordable payments services to a population of retail and financial businesses who cannot budget infrastructure investments that include a NonStop.

Each OmniCloudX customer pays only for the amount of CPU resources, storage, and networking that it uses. Backup systems are provided so that a system outage will be recoverable immediately via automatic failover to other geographically dispersed NonStop X servers. OmniPayments supplies the IT staff needed to manage the transaction switches running in its cloud. Also supplied are complete security functions for every transaction handled, including encryption-at-rest and encryption-in-flight.

Easily expandable to provide additional functionality when needed, OmniCloudX, like standalone OmniPayments, will survive any single fault, requires no downtime for maintenance or upgrades, and supports a range of disaster-recovery solutions.

### OmniPayments Preauthorization Engine – We Call It the Fraud Blocker

The OmniPayments Preauthorization Engine is used by financial institutions in conjunction with the OmniPayments Financial Transaction Switch or as a seamless interface to other providers’ switches via a custom support module (CSM). Customers call the Engine the fraud blocker. Modern and easy to manage, it preauthorizes millions of transactions far more effectively than its complex, compute-intensive competitors.

The Preauthorization Engine is one of the OMNIs – *OmniAuth*. It is flexible, SOA-based, sits on NonStop X, and interfaces easily with existing in-house systems and third-party solutions. Via complex rule sets, it identifies potentially deceptive transactions in real time and rejects them without having to send the transactions to issuing banks for authorization. The banks only see the validated transactions. In doing so, the “fraud blocker” mitigates the immense processing load demanded by the banks’ own systems to perform preauthorization checks. It also minimizes the response times for transaction approval/rejection.

Fraud Blocker Case Study

One of Latin America’s largest suppliers of electronic transactions counts on the OmniPayments Preauthorization Engine, which seamlessly interfaces to the EPS (Electronic Payment Systems) provider’s existing financial-transaction switch via an Opsol-created custom support module. The switch routes all financial transactions to OmniPayments for preauthorization prior to submitting the transactions to the issuing banks for final approval. For this EPS provider, that amounts to almost 200 million transactions per month.

**New in 2016 - OmniPayments Goes Mobile**

It was only a matter of time before OmniPayments customers in retail and finance asked Yash to develop mobile banking applications for use with their payment systems. Out of their requests came OmniPayments Mobile Banking, which brings real-time, anywhere banking and financial transaction convenience via a variety of digital devices.

Mobile Banking

The mobile banking application is intuitive, user-friendly, highly secure, fraud-resistant, and is architected for the Android operating system. Built on OmniPayments’ HPE NonStop X servers, the app is backed by an automatic failover function to guarantee continuous availability. It readily can be customized to address any customer’s unique requirements.

OmniPayments mobile banking seamlessly integrates with host systems and connects directly to Web Services via JSON or SOAP/XML. It provides instant updates, real-time reporting, includes a web-based UI Console/Dashboard for report analyses, and manages both debit/credit cards and loyalty/gift cards. Among numerous services, users can pay bills, transfer funds, recharge prepaid mobile devices, access digital wallets, deposit checks, make in-store purchases, and monitor balances.

Loyalty Card Management System

Loyalty programs are a marketing strategy designed to encourage repeat customer business via frequent flyer programs, rewards plans, club programs, points incentives, prescription plans, and gift cards. The OmniPayments Loyalty Card Management System provides all the necessary features to create, manage, and operate a variety of loyalty programs.

The Loyalty Card Management System is highly secure and fraud-resistant. It supports transactions made via POS terminals, cash registers, web portals, and mobile devices. Intuitive and user-friendly, the system connects directly to an OmniPayments NonStop X server and allows customers to check card statuses, confirm balances, view detailed transactions, and benefit from a host of other features. Retailers can review, manage and maintain their own loyalty programs via the OmniPayments Online Web Console, which also provides access to detailed, real-time analytical reports.



Loyalty Card Case Study

Casa Ley is a longtime OmniPayments and NonStop customer. It is a large grocery store chain with hundreds of stores in over forty cities. Recently, the company decided to expand its customer incentive and retention efforts via new loyalty and reward programs. After a careful review of its options, the company selected the OmniPayments Loyalty Card Management System and Android Loyalty application, both directly connected to NonStop X via the store’s OmniPayments Financial Transaction Switch.

**OmniPayments is Now an Authorized NonStop and Atalla Reseller in Latin America**

The OmniPayments presence in Latin America has been particularly successful, with a large installed base in several countries, including Colombia, Mexico, and the Dominican Republic. In areas where HPE does not offer 24x7 product support, Opsol Integrators provides managed services for remote production monitoring. Becoming an authorized reseller of HPE NonStop servers and HPE Atalla security products is a natural extension of the Latin America partnership that OmniPayments already shares with HPE. Although OmniPayments sells HPE solutions, Yash Kapadia has chosen to do so at $0 profit for his company. When Yash says “savings,” he means it.

**We’re Here, We’re There, We’re Everywhere**

Opsol Integrators and OmniPayments maintain a global presence. Locations include company headquarters in California; development facilities in India; offices in Houston, Mexico, and Colombia; and new representation in Europe. Our staff members are based in three time zones. As such, we work 24 hours a day and are known for rapid project turnarounds and meeting deadlines. It’s also why migration from one switch to OmniPayments typically averages only four months.

As for Yash, he keeps busy identifying new geographic regions for upcoming OmniCloudX purchases. Already, OmniPayments has seven data centers; but Yash sees a market for more. “The closer the data centers are to customers,” Yash says, “the greater the mitigation of communication

The OmniPayments Crew

 costs.” Yet another savings that OmniPayments passes on to its customers.

We told you that Yash loved the NonStop X.

For further information about all OmniPayments solutions, contact us at +1 408-364-9915. [www.omnipayments.com](http://www.omnipayments.com). We are Booth #48 in the Partner Pavilion at the upcoming NonStop Technical Boot Camp.