



## Special Report on e banking

# SmartSwitch Nigeria – e - Payment for all Nigerians

SmartSwitch Nigeria Limited (SmartSwitch) is the Nigerian subsidiary of Net 1 UEPS Technologies Inc (Net 1). Net 1 is a \$1.5Bn NASDAQ quoted (NASDAQ: UEPS) global leader in the electronic payment solutions industry.

SmartSwitch was established to deploy the Net 1 patented Universal Electronic Payment System (UEPS) technology which provides a secure, universal and affordable E-PURSE, MULTI-APPLICATION, MULTI-WALLET and MULTI-ISSUER switching and settlement system, catering for both the financial and non-financial market sectors.

At SmartSwitch we plan to have a substantial impact on the financial industry in Nigeria, where approximately 90% of the 140 million Nigerian Citizens are clearly underbanked or unbanked and only transacts in cash.

The SmartSwitch objective will be to deploy the UEPS technology through several value added applications, including banking, government, health care, pensions, transport, micro-finance, insurance and many others.

### THE SMARTSWITCH VALUE PROPOSITION

SmartSwitch Nigeria provides financial institutions and other card issuers with a secure, smart card based and biometric driven electronic payment and transacting platform that enables them to offer their services to Anyone, Anywhere at Anytime.

#### The U.E.P.S. Technology

The U.E.P.S. (Universal Electronic Payment System)

that has either been linked to the cardholder's card during registration and card issuing, registered on the System Host as a Merchant or treated as a ONCE OFF payment.

#### Cash Advances

The "Cash Advance" product will allow an ISSUER the facility to offer small monthly cash advances for emergency purposes to U.E.P.S. cardholders at POS terminals installed at participating merchants, bank branches and the offices of micro-financiers.

#### Money Transfers

S2S Money Transfers are used for the transfer of international and local funds from benefactors to beneficiaries. The funds are loaded electronically and securely onto the beneficiary smart card using biometric fingerprint as the identification methodology.

#### Insurance

The S2S Insurance System was designed in particular for the "un-banked" and "underbanked" market segment which is currently forced to participate in an informal insurance industry that provides little or no protection to its customers.

#### Distribution

S2S Distribution is used to facilitate payments for goods delivered by wholesalers to merchants in both rural and urban environments.

#### Prepaid Utilities

S2S Prepaid Utilities allows for the transfer of prepaid units and information between facilities' providers and their metering devices such as water and electricity meters.



• Olatokunbo Kotoye CEO SmartSwitch Nigeria Limited

cally loaded.

- Automatic Debit
- EMV Compliant

#### BENEFITS OF THE U.E.P.S SAFE & SECURE

- Biometric instead of PIN
- Card encrypted Information
- Minimal online communications required
- Removal of the risks associated with cash

#### EASILY ACESIBLE



The U.E.P.S (Universal Electronic Payment System) was designed and developed by Net 1 UEPS Technologies Inc as the world's first commercial electronic wallet, which uses the most advanced form of smart card technology. It makes use of the methodology patented in the FTS Patents (Funds Transfer System) which describes a method through which funds can be transferred from one smart card to another in a secure and offline manner. The primary purpose of the U.E.P.S. was to deliver an alternate method of banking that would allow financial institutions a method of providing a wide range of services to all citizens regardless of their financial position and irrespective of where they reside. The U.E.P.S. was designed to address three major factors being AFFORDABILITY, FUNCTIONALITY and ACCESSIBILITY. The UEPS is the fundamental technology that drives SmartSwitch Nigeria.

The solution is built around a set of hardware and software that together form a contiguous payment control mechanism. The Universal Electronic Payment System allows for a secure national payment system that manages the flow of funds between consumers, merchants and financial service providers.

### Products of the U.E.P.S

#### S2S Banking

Our S2S Banking system enables traditional financial institutions to surpass the offerings of their competitors through the technological functionality provided by the U.E.P.S.

#### Salary and Wage Payments

An interface used by employers or agents, whereby multiple payments can be done to different cards in bulk.

#### Retail Point of Sale

The primary function of S2S RETAIL & WHOLE-SALE is to effect payments made for goods, services or cash dispensing, from a client smart card to a merchant smart card in a secure off-line manner. 3rd Party Payments

Any Bill/Account payments such as school fees, utilities, etc can be paid via the smart card to a third party

units and information between facilities' providers and their metering devices such as water and electricity meters.

## ADVANTAGES OF THE SYSTEM

- Provides clear audit trails
- No online communication or authorisation procedure is required for transactions, the system is designed to operate in 100% real time, but OFFLINE environments.
- Ensures that every authentic transaction will succeed.
- Makes use of biometric fingerprint technology for identification purposes.
- Provides an accurate and flexible fee structure which enables card issuers to earn revenue each time a transaction is performed by the card holders.
- Provides an accurate and flexible fee structure which enables POS terminal acquirers the ability to earn an acquiring fee whenever a card transacts in their POS terminals.

## KEY FEATURES OF THE SYSTEM

- Continuous Debit - Allows the consumer to buy goods or services as when needed rather than prepaid. A customer simply inserts his card in a utility meter and when a unit of service is used the smart card will debit itself.
- Multiple and Restricted Wallets - Up to 255 wallets that can be assigned various and diversifying roles; interest generating savings, pre-paid utilities, credit, debit orders. In addition, a wallet can be either protected or unprotected. Protected wallets require the biometric verification.
- Offline Loading - Online solutions use infrastructure that are expensive to deploy in developing countries. Using the patented 10 digit signature code that the system server generates specific amounts can be loaded to specific cards when presented at any offline POS terminal.
- Biometric Identification - Rather than PIN that can be compromised the system uses biometric finger print data to secure cards as well as a PIN. All ten fingers are captured with three images per finger taken.
- Automatic Credit - Card holders go to designated points to register for an automatic credit instruction. While at the POS terminal, the credit initiator submits an application for an automatic credit instruction to the back end system. On the day the card holder is to receive the payment, he inserts his card into any POS terminal and is automati-

## EASILY ACCESSIBLE

- Infrastructure not required
- Available in all parts of the country
- Literacy not required

## EXTREMELY AFFORDABLE

- Removal of costs and risks associated
- Removal of infrastructural costs
- Increased volumes brings decreased fees

## FULLY AUDITABLE

- Full financial reporting provided
- Slips generated for each transaction
- Full MIS reporting available

## RICH FUNCTIONALITY

- Functionality can be customized to suit customers requirements
- So much more than just a banking card
- Provides full information management system.

## Mr. Olatokunbo (Toks) Kotoye

He is the Chief Executive Officer of SmartSwitch Nigeria. He holds a BSc degree in Computing Studies from South Bank University, London, UK and an MSc degree in Business System Analysis and Design from the City University London, UK.

According to Toks, he started his career in London as a consultant with CWB System Services where he provided effective Financial Technology solutions for many banks based in the City of London. He then joined NatWest Markets one of the largest banks in England, he was responsible for providing solutions to traders on the trading floor in the dynamic equity derivatives markets.

His inherent entrepreneurial bug led him to set up his own Consultancy Company in 1995 in the City of London, innovative solutions were provided to many banks including JP Morgan, Credit Suisse First Boston, Nomura, ING Barings, Sumitomo, Schroeders and Abbey National amongst others.

The newly installed democratic government encouraged him to consider returning home. On arrival back home he initially channeled his energy to the positive application of his extensive

ICT skills by serving as a Consultant to the Federal Government, advising on the formulation of the ICT policy.

Subsequently, the focus progressed to the newly deregulated Nigeria Telecommunications sector where a broad range of technical Consultancy Services and Solutions were provided to the leading GSM Network Operators in the country. Toks has had a considerable impact in the Nigerian financial services industry where he has deployed a broad range of creative solutions to various satisfied clients, these include eBanker, eBroker, eFund Manager, eInsurer, ePayment, ePension, eVendor, and other Technical Services.

Toks has a passion for enhancing lives with financial technologies; he strongly believes that appropriate financial technologies can be used to combat Poverty in developing economies. He has attended numerous courses at various business schools all over the world, including CASS Business School, City of London, UK; Lagos Business School (OMP 3), Lagos, Nigeria and Harvard Business School (OPM 37), Boston, USA.