

SIMPLEX VOUCHER MANAGEMENT

CASE STUDY

9Mobile



Nigeria has the largest number of mobile subscribers in Africa and ranks in the top ten largest mobile phone markets in the World for both total numbers of subscriptions and Smartphone users.

With four major mobile operators, it is inevitably a very competitive landscape and of the largest players, wholly Nigerian-owned 9mobile, is the youngest.

EMTS, the forerunner to 9mobile, acquired their Unified Access License from the Federal Government of Nigeria in January 2007 and after an extensive network build out, full commercial operations began in September 2008.

9mobile has always operated on the core values of industry-leading customer service and innovation and today, boasts over 13 million customers and growing.

9mobile partners with Bluechip Technologies

The partnership between 9mobile and Bluechip Technologies began with 9mobile's inception as a mobile operator in Nigeria in 2008.

In common with all Mobile Network Operators, 9mobile needed to build expansive Business Support Systems to ensure that they had the Business Intelligence to be able to understand customer behaviours, increase ARPU and reduce churn.

One of the first projects that Bluechip Technologies delivered to 9mobile, starting in 2009, was a state-of-the-art Enterprise Data Warehouse to provide a 'single source of the truth' and to automate the delivery of daily business Key Performance Indicators to enable proactive decision making via a self-service Business Intelligence suite. The Enterprise Data Model with full Analytics capabilities, Business Rules implementation, Real Time Data feed and High Availability ensured, and still ensures, that 9mobile always had accurate and timely business information at their fingertips.

A Telco API and Credit Scoring System followed as part of 9mobile's Data Analytics strategy, enabling monetisation of data through a Credit Score Engine. As a preferred partner of 9mobile, Bluechip Technologies was then commissioned to implement an Advanced Inbound Marketing solution, automating Next Best Action offers based on advanced analytics to drive up revenues through cross-selling and up-selling of customer centric offers.

As the partnership developed over the years, on the back of the success of the EDW project, further strategic developments followed. Bluechip Technologies implemented Simplex - our 'Trade Watchtower' product to manage 9mobile's entire Sales & Distribution Lifecycle and provide a 360° view of the business by capturing all activities within the value chain and delivering omni-channel monitoring of the 'in-the-field sales force'.

Nigeria is a fast-paced and competitive business landscape, with all four major operators wanting to increase voucher sales, as well as margins, whilst reducing risk and operating costs. When 9mobile needed a robust Voucher Management System to manage the complete lifecycle of prepaid vouchers, from PIN generation through Redemption and Administration, Bluechip Technologies was the natural partner.

Recognising that there was a Global requirement for improved management of the prepaid vouchers at a reduced cost, Bluechip Technologies invested in the development of our Simplex Voucher Management system.

Simplex Voucher Management

Simplex is a market leading Voucher Management solution that manages the complete lifecycle of prepaid vouchers, from their generation through to redemption, covering all aspects of PIN Management, Stock Management, Fraud Management, Order and Sales Management and Security. By design, Simplex offers Open APIs with built in integration with ERP systems, to Service Providers and to the IN. It also allows easy payments via bank transfers or credit cards by using the integrated payment gateway.

It is designed for forward thinking telecoms, energy, retail and entertainment businesses. Simplex is securely engineered through a combination of market leading technology solutions as well as multiple industry know how.

Simplex has a beautifully designed user interface for non-technical users with robust (self-service) reporting and analytics. We called our Voucher Management system Simplex because of the easy-to-use interface it provides for distributors and retail operations managers. It's a self-service tool that gives users complete visibility of the voucher lifecycle.

At 9mobile, Simplex sits at the heart of their prepaid voucher sales, distribution and management. A few of the features that Simplex delivers to 9mobile include :-



An Adaptive Pin Generator (APG) that enables 9mobile to use a mix of User ID, Serial Number and the Timestamp of the request for PIN uniqueness. Simplex allows 9mobile's channel partners to sell both physical and virtual top ups from this highly parameterized system



The creation of physical and electronic vouchers, the printing of vouchers and PIN generation, controlling multiple voucher transactions. A voucher is generated by Simplex when 9mobile's channel partner makes a request for it, it is encrypted and saved in the Voucher Management database.



An easy and intuitive interface for 9mobile Distributors and SIM sellers, making it easy for them to sell a 9mobile voucher. Simplex vouchers are distributed via POS, USSD and Web, enabling distributors and resellers to sell vouchers virtually.



Efficient lifecycle management of voucher warehousing, distribution, activation and redemption Simplex provides a uniform platform to create, categorise, classify, and manage different products as required and defined by 9mobile.



Security is crucial, so strict controls and operational best practices were put in place to ensure integrity of the Simplex system, with full audit trails and secure status tracking available to 9mobile, enterprise wide. Voucher files are encrypted during their distribution, making certain that the voucher is secure.



Simplex provides 9mobile with complete visibility of the Voucher lifecycle, through extensive reporting that can be customised to their specific needs at any time.



Simplicity is crucial and with Simplex, distribution of the Voucher and Voucher activation requests are made through a simple user interface. Each request for an activation carries the details of the MSISDN, and as the customer details are found in the database, the transaction is completed through the integrated payment gateway.



By design with a “no-code” user interface, Simplex can easily be used by 9mobile’s Dealers, Distributors and mobile Point-of-Sales teams alike, enabling them to concentrate on promoting and increasing 9mobile’s revenues through vouchers.

9mobile reliably processes hundreds of millions of recharges using Simplex each month, enabling 9mobile to increase sales, improve efficiency and visibility and reduce revenue leakages.

Transformative Technology

Simplex is a Cloud application that can be deployed on multiple cloud environments such as Azure, AWS, OCI, Google Cloud, IBM Cloud and others.

The solution is able to fully integrate with any core Telco application and all other RDBMS data sources and it is database agnostic, so can it be installed on top of Oracle, SAP or any other database.

Simplex also helps system administrators track changes and user activity on the system with configurable access control and management to help organizations manage who has access to features on the application, and the scope of their access.

For those customers that have yet to transform into Cloud based technologies or who prefer to have their data and applications on-premise, Simplex can also be deployed on-premise.

Benefits for 9mobile

Simplex was developed by Bluechip Technologies to meet the needs of an innovative mobile operator, 9mobile, operating in a highly competitive market as the last entrant. In such a competitive environment, it's crucial that the job gets done, it gets done better and it gets done cheaper.

A primary outcome for 9mobile is that they have a competitive edge and inevitably, a lower Total Cost of Ownership and reduced distribution costs (compared to a previously deployed Voucher Management System) has enhanced overall profitability. Improved security and reporting has enhanced Revenue Assurance. Etisalat (now 9mobile) is able to achieve the following;

- ☑ Automate the Order to Delivery (O2D) process which improved the turn around time from days to mins (<5mins).
- ☑ Increase the airtime sales revenue by 2X within the first 6months of implementation.
- ☑ Increased security on the business process thereby cutting down fraud drastically.
- ☑ Reduced the cost by up to 50%, incurred on PIN Generation drastically through the demand management and flexible licensing of Simplex.
- ☑ Consolidation of multiple applications reduced the multiple service failure points thereby increasing uptime of the platform.
- ☑ Provide visibility across into the inventory across the entire value chain especially the last mile.

From the outset, 15 years ago, 9mobile never aimed to be the biggest mobile operator in Nigeria. The core values of the business have always been to deliver industry-leading customer service and innovation. In December 2022, 9mobile was awarded the Deborah Leipziger Africa Prize for Innovation at the 16th edition of the prestigious Sustainability, Entrepreneurship, and Responsibility Awards.

About Bluechip Technologies

Bluechip Technologies Ltd is an award winning Data Management, Business Intelligence and Analytics software development, implementation, consultancy and services company established in 2008 and headquartered in Lagos, Nigeria with operations across Africa and in Europe.

It is no coincidence that for the past 15 years, Bluechip Technologies has been a trusted partner to 9mobile, implementing leading edge solutions in an ever-changing environment. We started in business around the same time!

In support of our pan-African development and to deliver localised services to our customers, Bluechip established new operations in the Democratic Republic of Congo and Kenya and more recently in Zambia, Ghana and South Africa. Furthering the development of our corporate global footprint, in 2022, Bluechip established an operation in the Republic of Ireland to service our customers in Europe.

Over the past 15 years, Bluechip has built up an impressive client base, including many of the leading Banks and Telcos of Africa. Our customer base extends into the Public Sector, Manufacturing, Industrial and other sectors.

We have long established track record and expertise in designing and implementing On-Premise, cloud and hybrid Data Warehousing and Analytics solutions, Enterprise Resource Planning, Enterprise Performance Management, Enterprise Risk Management, Customer Experience and Human Capital Management.

As the movement towards Cloud continues, our team of highly experienced senior engineers, data scientists, analysts and project managers have already established an impressive track record in successfully executing Cloud Transformation projects in both Banks and Telcos.

Just a few of the transformational customer projects that we have successfully deployed include:

Enterprise Data Management Platforms including Financial Management, Sales and Marketing Management, Product Management, Risk Management, Operations, Customer Experience, Enterprise Services and Subsidiary Management. automation of Management Performance Reports, Executive Dashboards, Customer 360-degree view.

Cloud Transformation from on-premise applications including General Ledger, Accounts Payable, Accounts Receivable, Asset Management, Cash Management, Expense Management, Supply Chain Management and Enterprise Performance Management, Human Capital Management.

Decision Support Systems including automation of Management Performance Report (MPR), Daily Score Card, Executive Dashboards & Data Governance.

Business Continuity Strategy for the protection of business-critical processes

Managed Services, Support & Maintenance & Training including Infrastructure services, Enterprise Data Warehouses, Business Intelligence, Voucher Management Systems, etc

Over the past 15 years, Bluechip Technologies has been delivering successful IT projects to many of the biggest companies in Africa. During that time, technology has changed and advanced and so too have the requirements of our customers. With Bluechip, our customers can rest assured that we are keeping abreast of the very latest in technology, that we understand the challenges your business faces and that we will deliver agile solutions that will bring business insights, efficiencies, a lower cost of ownership and optimal return on investment.

Who can use Simplex?

Simplex is highly adaptable. Mobile Network Operators (MNO's), Mobile Virtual Network Operators (MVNO's) and, indeed, any type of organisation that requires a simple to use, cost effective and flexible Voucher Management System to manage both physical and digital vouchers.

Utility Companies such as electricity, gas, internet services, water can leverage it to manage its Electronic and physical voucher distribution of prepaid services end-to-end.

Retail and Entertainment can also look up to Simplex for Cost-effective electronic voucher distribution for tolls, subscription TV, internet subscription and examination vouchers.

