Case Study

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Transforming Telecom Operations with **Digital BSS** at Tanzania's Tier 1 Operator

Overview

This case study explores the triumphant implementation of a Digital Business Support System (BSS) at a leading Tanzania based Communications Service Provider company. To overcome integration challenges, complex inventory management, disjointed sales processes, and fragmented order management, the operator sought a comprehensive solution for operational streamlining and improved customer experiences. Partnering with 6D Technologies, the tier-1 CSP deployed Canvas, 6D Technologies' comprehensive multi-play BSS platform, enabling digital transformation of their BSS stack. The outcome included enhanced functionality, streamlined order management, actionable insights, seamless integration, and accelerated deployment, leading to improved efficiency, cost savings, and revenue growth.

Client

The client, being a prominent telecommunications company in Tanzania, offers a diverse array of mobile communication services such as voice, data, messaging, and value-added services. With a widespread network coverage encompassing major cities, towns, and rural areas, the company has made significant investments in expanding its infrastructure to ensure dependable mobile services for its clientele. Additionally, the client operates a well-received mobile money service that empowers users to perform various financial transactions, including money transfers, bill payments, airtime purchases, and more, all through their mobile phones. This service has played a pivotal role in fostering financial inclusion within Tanzania.



Challenges

The client faced several challenges that necessitated the adoption of a Digital BSS solution. Here are the specific challenges along with some additional observations:

Lack of Integration between iCAP (CRM) and Billing (VxView) :

The absence of integration between the customer relationship management (CRM) system (iCAP) and the billing system (VxView) created operational inefficiencies and hindered seamless customer management and billing processes.

Multiple Inventory Platforms:

The presence of multiple inventory platforms resulted in complex orchestration and management of inventory that lead to inefficiencies and errors.

Absence of a Sales Lead Platform:

The company lacked a centralized system to track leads and opportunities systematically, making it difficult to manage and prioritize sales leads effectively.

Lack of Integration between Sales Lead Process and CRM:

The sales lead process was not integrated with the CRM system, which led to disjointed processes and potential loss of valuable sales opportunities.

Multiple Product Catalogs and Configuration Systems:

The absence of a single master product catalog, multiple product catalogs and configuration systems caused complexity with inconsistencies in product management and configuration.

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Lack of Common Data Aggregation for Reporting:

The absence of a centralized data aggregation system made it challenging to generate comprehensive reports by consolidating data from different sources.

Architecture based Challenges:

- The solution was not based on Open Digital Architecture (ODA)
- The integration architecture followed a Point-to-Point approach
- The existing systems were not exposed to Open APIs
- The solution stack heavily relied on customization and lacked standardization

Solution

6D Technologies facilitated Canvas, a comprehensive digital BSS (Business Support System) stack. The transformation included the implementation of an Offline Charging System (OFCS) for accurate rating and charging support. Additionally, Sales Lead and CRM systems were deployed to ensure precise order fulfillment. A robust Product catalog was introduced to create tailored plans for both individual and enterprise customers. The platform streamlined the order capture, processing, management, and provisioning processes, enabling efficient operations. Furthermore, the implementation of a comprehensive billing system enhanced billing capabilities for both enterprise customers . To optimize the collection process, a digitalized month-to-month application for payments was introduced.Network support was also provided for LTE, GSM, Fixed line, Broadband , Co-location, Corporate APN, Toll-free (GSM & Fixed).



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BSS Platform

- Developed Integration Adaptors with a focus on reusability.
- Successfully executed over 12,000 comprehensive test cases for Vodacom.
- Minimized disruptions to the commercial systems , ensuring transformation steps aligned seamlessly with key business milestones.
- Adapted to meet specific local customization requirements.
- Implemented an Addendum High-Level Design (HLD) approach using an iterative model without impacting project milestones.
- Achieved a successful migration with the third dry run, matching the VxView Revenue Report upon cutover.

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The solution is designed to support LTE and TETRA networks, offering an extensive set of products such as a Unified Product Catalog, Offline Rating Engine, Postpaid Billing and Invoicing, Payment and Collection, Self-care, and Service Activation. Canvas also provides an API layer for seamless integration with third-party systems and payment gateways, based on the specific requirements of the operator.

The 6D Platform offers the flexibility to be customized and configured precisely according to the operator's specific requirements, seamlessly incorporating the necessary capabilities and modules. Its personalized design guarantees alignment with both current and future needs, minimizing intricacies and inconveniences.

By leveraging the power of the Digital BSS suite, the client achieved significant improvements in their commercial, technical, and operational performance, enabling them to deliver enhanced services to their customers.



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Key Highlights

Unified Product Catalog: A centralized catalog for retail and corporate products, streamlining the offerings and improving customer experience.



360-degree Customer View: Integrated campaign and loyalty management, enabling a holistic view of customer and user data.

Streamlined Billing System: A retail and corporate billing system with minimal scope for disputes, ensuring accurate and efficient billing processes.



Business Process Automation: Leveraging Camunda-based Journey Management to automate critical business processes, enhancing operational efficiency.

Network Support: The solution seamlessly integrates with various networks, including 3G, 4G+, LTE, Broadband/FTTx, IPTV/Cable TV, and IMS.



Customer Segments: The solution catered to diverse customer segments, including prepaid, postpaid, hybrid, and corporate customers.

Smooth Migration: Legacy OCS and BSS systems were successfully migrated to the cloud-native digital platform, facilitating a seamless transition.



Scalable and Modular Architecture: The solution embraced a modular and flexible architecture, allowing for future scalability and agility.

The collaboration between 6D Technologies and the telecom operator in the Pacific Islands led to a remarkable digital transformation of their BSS stack. By leveraging a comprehensive suite of digital solutions, the operator achieved unified operations, improved customer engagement, and enhanced service delivery, empowering businesses and individuals in the island nation.

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Results

1. **Customer Segments:** Wider range including prepaid, postpaid, hybrid, and corporate customers
2. **Legacy System Migration:** The operator successfully migrated from Huawei OCS and BSS systems to the new solution
3. Large-scale License Issuance: **80,000 customers**, with Oracle Database support
4. Increased net new subscriber **adds by 32%**
5. Reduced subscriber churn by **2.3%**
6. Increased monthly data usage per **subscriber by 12%**

6D Technologies helped the operator embark on a transformative journey, revitalizing their entire BSS stack to meet the demands of a rapidly evolving digital landscape. Through the integration of an Online Charging System, CRM, and Product Catalog, the operator witnessed significant improvements in their operational efficiency, order fulfillment accuracy, and plan creation process. As the telecom industry continues to evolve, the importance of embracing Canvas's cutting-edge BSS solutions cannot be overstated.

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