

SOLUTION OVERVIEW	
Client	MTN SA
Industry	Telecommunications
Solution Type	Business Intelligence
Technologies	SQL 2008 R2, SharePoint 2010
Completion Date	2013-05-30

1. The Client

MTN South Africa is part of MTN Group, a multi-national telecommunications that boasts over 152 million subscribers across its company with operations in 21 countries in Africa and the Middle East. MTN is listed on the Johannesburg Stock Exchange (JSE) under the share code "MTN" and enjoys approximately 37% of market share in South Africa.

The company provides voice, data and telemetry offerings and solutions to its 20 million customers in South Africa. About 60% of MTN South Africa's population is covered by 3G network technology, covering speeds of up to 42Mbps, while over 98% has 2G and Edge coverage.

2. The Problem

MTN SA requested for the creation for a detailed analytical model to be shaped from transactional level summaries allowing for enriched reporting to supplement the existing Business Intelligence Solution. The solution called for "Big Data" to be processed into the data warehouse environment (SQL Server 2008 R2) via ETL routines and thereafter loaded into one of the country's largest SSAS cubes (+ 2 TB)

Subscriber information was augmented with detailed daily usage data giving insight into behavior, movements and trending for subscribers on the MTN network for Postpaid and Prepaid data.

3. The Solution

MTN SA has identified a new business need for the closer monitoring of gross connections and their behavioral pattern. This extends to various distribution channels as well as other reporting attributes calling for the project to be named the 'distribution portal'. MSBI (Microsoft Business Intelligence) was identified as a central repository for which information from various systems are consolidated and collated making accessibility to end users seamless for reporting at a detailed granularity allowing for the analytical model to describe data for this requirement in an easy manner.

Subscriber information is married to detailed transactional call and event data elements enabling detailed insights into performance and movements of gross connections within MTN network. Data

elements currently available within MSBI will be sculpted as per business requirement to enable the cross analytics of different subject area'

The project addresses 3 subject areas:

Gross Connection and Churn analysis (Completed)

Subscriber Event analysis (Completed)

Usage analysis (Iteration 3)

Distributed Handset kits and Commissionable Activations (Iteration 4)

Iteration one definition

The first iteration included Gross Connection and Churn analysis sourcing and modelling data from the SBM information set within MSBI. This includes the analytical ability to slice and drill down across a range of attributes that are available and familiar to the end user community. Subscribers will be segmented into analytical pools for gross connections and churning buckets and thereafter tracked for their lifecycle, allowing for a segmentation view on their performance over time. MSBI attribute dimensions have been added to the solution allowing for a deeper view into the subscriber performance and patterns to give a trending view of the information set .i.e. information can be filtered by price plan, channel, primary group etc. Enriched banding has been introduced showing the difference from the activation date to the subscriber's revenue generating event date.

4. The Technology

SQL Server 2008 R2 was deployed, using Integration Service, and Analysis Services to transform and store data within the database environment. SharePoint 2010 was deployed for data dissemination with Performance Point Service, Power View and Reporting Services.

5. The Benefits

MTN Distribution Portal

The Analytical data model gave the end users the ability to analyse semi-real-time information across a host of source system brought together in a rich data model which supports operation reporting as well as advanced analytics. This was only achievable to the business previously through manual queries which was time consuming both from a system and analyst point of view.