SO1

Cloud-based Vertica Analytics Platform underpins most advanced AI retail promotion solution
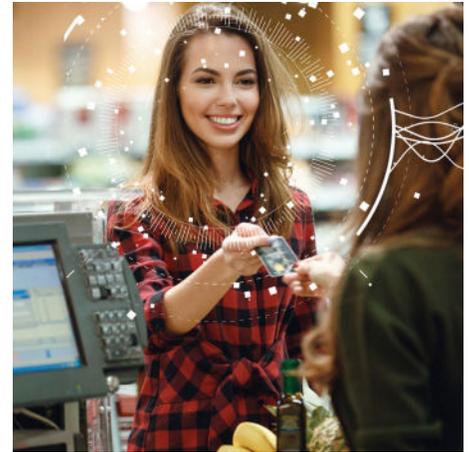
Overview

SO1 stands for Segment Of One and that describes its business model perfectly. SO1 helps retailers optimize and personalize the promotions they offer their customers. It uses Artificial Intelligence (AI) to analyze customers' purchase histories and preferences to automatically predict the right incentive that will persuade a buying decision at the right cost and the right time, optimizing retailer's financial goals.

"Leveraging Vertica's (now part of OpenText™) integration capabilities, unparalleled scalability, and high performance, we have delivered an automated end-to-end solution which runs autonomously and requires little to no manual effort."

STEPHAN VISARIUS
Director Customer Acquisition and Success
SO1

Challenge

Today's retail promotions often take a scatter-gun approach. They are unrelated to consumer's needs, tend to over-discount and, as a result, replace planned purchases. Nielsen, the leading global measurement and data analytics company, estimated in 2016 that 59 percent of retail promotions fail to break even.

There is a growing trend for consumers to seek a more personalized service and to engage with companies that truly understand their needs and expectations. SO1 works with leading retailers around the world to provide this. Stephan Visarius, Director Customer Acquisition and Success for SO1, explains: "Our Artificial Intelligence (AI)-based solution delivers precisely this personalized promotion experience through a fully autonomous and self-learning promotion platform that efficiently influences individual purchase decisions. It flexibly adapts to our retail customer's financial goals, and scales to millions of individual consumers' needs."

SO1
SEGMENT OF ONE ®

At a Glance

- **Industry**
  Software and Technology

- **Location**
  Germany

- **Challenge**
  Deploy data analytics solution in Azure cloud environment to support sophisticated AI and machine-learning for personalized consumer promotions

- **Products and Services**
  Vertica Analytics Platform

- **Success Highlights**
  + 1 day transition from existing solution to OpenText
  + Superior compatibility and integration capabilities
  + High performance enables fast query changes and data processing
 + Cost-effective combination of OpenText's scalability and elastic cloud environment

OUR VISION

From
**Segments
of Many**

SO1
SEGMENT OF ONE

SO1
SEGMENT OF ONE

THE MOST ADVANCED
AI FOR RETAIL **PROMOTIONS**

The AI engine is fully automated to minimize retailer's complexity: looking into past history of customer purchases it can automatically identify products from bar codes and extract about 800 latent attributes per product—to correlate these with purchasing decision factors such as individual consumer preferences, willingness to pay, and buying intention.

The result is a personalized offer designed to meet a particular business goal for the retailer, be it revenue, customer satisfaction, churn avoidance, and increase in loyalty or profit. The promotions are delivered multi-channel, and could consist of recommendations, discounts, or brand promotions.

AI generated Promotion Feeds

Individualized, optimized and automated feeds for retail

Goal:
Influence a single purchase decisions via offers, ads, content

OPTIMIZED FEEDS
FOR DIFFERENT
BUSINESS GOALS

REVENUE · PROFIT · CUSTOMER SATISFACTION · DRIVE TO STORE · AVOIDING CHURN · LOYALIZATION · PUSH OWN LABELS

SO1® SEGMENT OF ONE
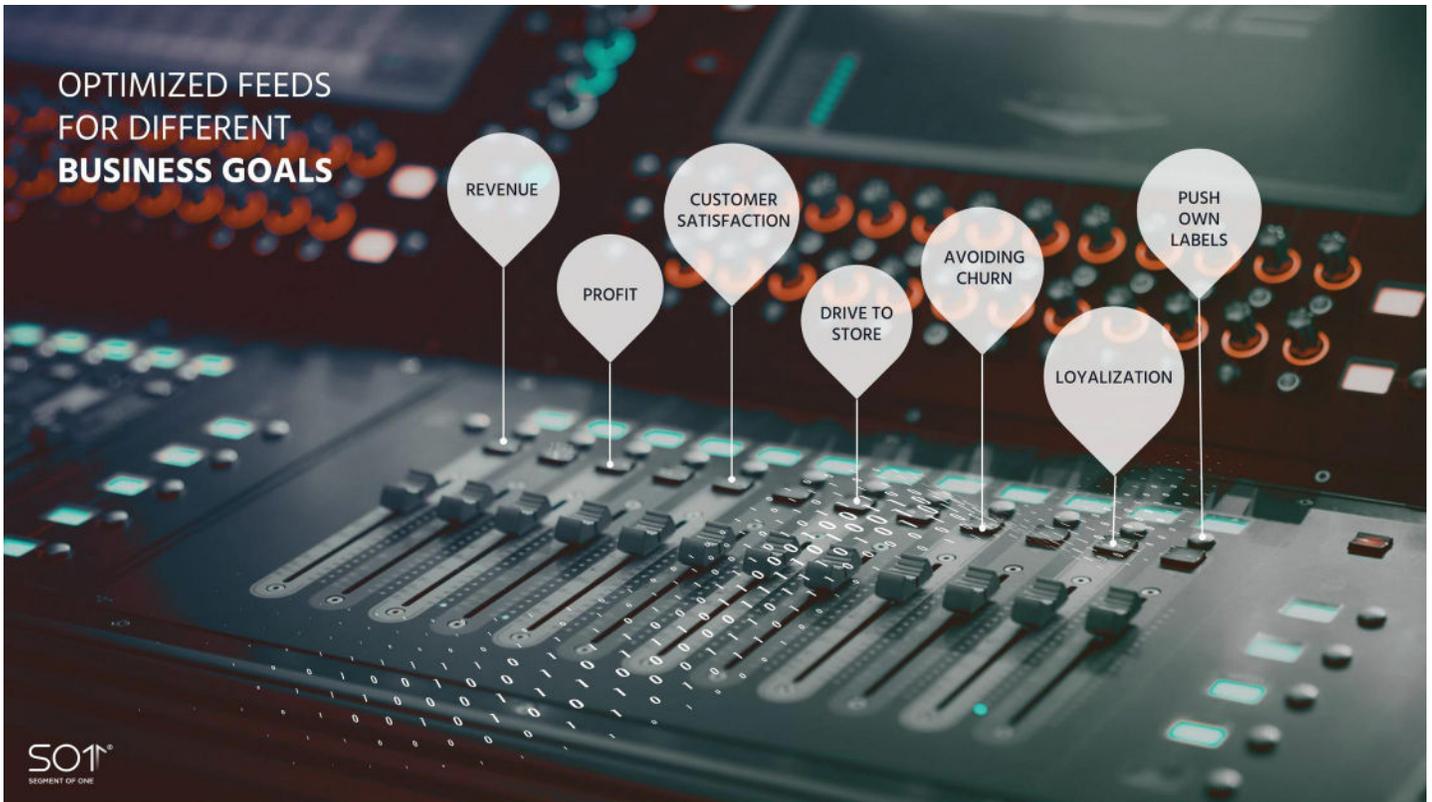
The key to success is the volume of data the SO1 solution processes. AI and machine-learning capabilities thrive on data. The more consumer data can be analyzed, the more accurate the promotional output will be. With retail customers ranging in size from 300 to 3,000 stores, the data analyzed through SO1 quickly runs into the Terabytes.

Andrei Strugaru, VP Engineering at SO1, comments: "A cloud environment gives us the flexibility and scalability we need to process the large data volumes. We used another data analytics product, but this was not compatible with Azure, which we decided to adopt as our cloud platform."

Solution

With thousands of queries stored in the old solution, it was important for SO1 that any transition to a new analytics product be easy. They also wanted a stable and high-performance solution with straightforward management and administration, capable of dealing with large data volumes.

SO1 evaluated OpenText™ Community Edition (CE), which lets customers store and analyze up to 1TB of structured and semi-structured data for free, with no time limit. It gave SO1 the opportunity to test OpenText™ Vertica™ in the Azure environment. Azure is a neutral cloud provider with high security standards, and high availability with an SLA-backed uptime of

99.9%. Mr Strugaru on the decision for Open-Text: "From a technical perspective, there is plenty of research available to demonstrate scalability and robustness. Vertica's (now part of OpenText™) standard SQL-support greatly simplified our transition. Amazingly, it only took a day to adapt our code base and port the whole pipeline with thousands of SQL code queries to Vertica (now part of OpenText™). Even without any optimization, the query performance was comparable to before. Great documentation helped us set up a straightforward and stable cluster. We also felt reassured by the commercial support behind the platform."

Since completing this migration, OpenText is now the centralized data repository for SO1's

solution. All retail customer data is uploaded to Azure, and then processed into OpenText. From there, OpenText integrates with a number of frontend Business Intelligence (BI) applications for advanced descriptive analytics and analyst reporting. Using OpenText as the engine behind these BI applications is critical to support the increasing demand for complex analysis required by the retailer managers. OpenText allows them to use their preferred visualization tool out of the box, without compromising underlying analytical performance.

Customer and product data stored in Vertica is also used to build accurate machine learning models, which are fed into AI solution to create the most compelling offers automatically. Leveraging a high-performance columnar database as their data repository allowed SO1 to increase productivity of machine learning model building by accelerating the upfront, time-intensive tasks of data analysis and preparation using simple SQL functions across large parts of their data processing pipeline. After the data is processed and prepared in Vertica, AI models are optimized externally. Final results are fed to scoring engines within the solution so customers can interact with the information in real time.

Results

SO1's algorithmic learning improves over time, as Mr Visarius explains: "One of our leading retailers introduced a new loyalty card in its stores and asked us to provide users with 8 individual promotions per shopping trip. In the first week, we already hit a 42 percent conversion rate of these offers, while applying 22 percent average discounts. After 40 weeks, the average discount had dropped to 13 percent, and the offer conversion rate increased to 60 percent. It is very easy to demonstrate the ROI of our solution."

As a key part of the SO1 technology stack, OpenText helps make these compelling offers a reality for retailers around the world. Mr Visarius concludes: "Our business is all about personalization; how do we move from segments of many to a segment of one? Leveraging OpenText's integration capabilities, unparalleled scalability, and high performance, we have delivered an automated end-to-end solution which runs autonomously and requires little to no manual effort."

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