

Telia Eesti AS

Telia Eesti simplifies business intelligence and data warehousing with Vertica.

Overview

Estonian mobile operator EMT and broadband operator Elion merged in August 2014, forming Eesti Telekom AS. Rebranded as Telia Eesti AS in 2016 and operating as a subsidiary of the Stockholm-based Telia Company, the business is one of the largest telecommunications companies in the Baltic States. The parent organization dominates the broadband and mobile markets in Finland, Sweden and the Baltics while also operating in Northern and Eastern Europe, and Central and Southern Asia. Employing over 1,800 personnel, Telia Eesti provides a comprehensive portfolio of telecommunications and managed IT services to residential and enterprise customers.

Challenge

Telia Eesti inherited two disparate business intelligence and data warehousing solutions containing some 3,000 data tables from EMT

and Elion. One solution employed an Oracle database and a Star Schema data model while the other solution used a Teradata database and data model. Both solutions utilized the SAP Business Objects reporting tool. While the warehouses' combined raw business data volume was relatively small at six terabytes, the models were extremely complex.

"These incompatible legacy warehousing solutions couldn't handle multiple sources of master data, were too expensive to operate and lacked performance," explains Peeter Kolk, Head of Business Intelligence and Data Warehousing, Telia Eesti. "We needed a unified and centralized enterprise data warehousing platform to provide cost-effective, shared views of the customer and service landscapes. We could then deliver a comprehensive range of high-quality business intelligence and analytics services to support marketing campaigns and simplify business decision making."

Solution

Telia Eesti initiated a data warehouse transformation project and requested proposals from three data and business analytics specialists including Tallinn-based Wizon, the Vertica implementation partner in Estonia.

"Important solution requirements for the business intelligence platform were performance, scalability, low ownership costs, flexible licensing based on the raw data volume and good support," says Kolk. "The most essential however was the rapid processing and analysis of large data volumes."

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PEETER KOLK

Head of Business Intelligence and Data Warehousing
Telia Estonia



At a Glance

- **Industry**
Telecommunications
- **Location**
Tallinn, Estonia
- **Challenge**
Deliver a unified and centralized enterprise data warehousing platform to provide cost-effective, shared views of the customer and service landscapes.
- **Solution**
Chose to deploy Vertica Analytics Platform.
- **Results**
 - + Delivers a comprehensive business intelligence capability, allowing better planning and decision making.
 - + Manages and analyses massive data volumes rapidly and reliably, creating a shared view of the customer landscape.
 - + Handles business intelligence queries at between 10 and 100 times faster.
 - + Offers a return-on-investment within three years.

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After careful consideration, Telia Eesti decided to conduct a proof-of-concept on the community edition of the Vertica Analytics Platform. This highly scalable column-orientated relational database handles modern analytic workloads with high-performance query analytics functionality. The solution also features effective data compression and delivers high availability and performance with very little administration.

“The Vertica community edition immediately yielded excellent results and we knew this would be the right product for us,” declares Kolk. “On similar hardware, the solution handles business intelligence queries at between 10 and 100 times faster than a standard Oracle database. The other differentiating factors favoring Vertica were lower total cost of ownership, a modern licensing scheme and sound technical support.”

Following the successful proof-of-concept, Telia Estonia established a 26-strong team to run the transformation project. Phase one involved migrating the SAP Business Objects reporting environment into a single version on one server. Phase two commenced within three months with the team migrating the physical data warehouses and separate data models onto Vertica. The final on-going third phase involves creating a new single data model using the Data Vault modelling methodology. “By eliminating the old database bottleneck, we’re benefitting from more efficient workloads for data mining and reporting,” comments Kolk. “Moreover, the quality of Extract, Transform and Load has improved, and decision makers receive more information faster via a common enterprise view.”

Results

After deploying the Vertica Analytics Platform, Telia Eesti now has a comprehensive business intelligence management capability on a single platform that allows the company’s senior executives to analyze customers’ behavior, plan marketing campaigns with advanced data mining and make important decisions about commercial developments. The new platform manages and analyzes massive data volumes rapidly and reliably, leading to a cost-effective, shared view of the customer landscape. Today’s new data warehouse contains approximately 9,000 tables and views and the company generates around 60% of documents automatically.

The telecommunications company has also experienced financial benefits. “Although we’re still building a common shared view of the service landscape with Vertica, the data warehouse transformation project has already delivered a return-on-investment within three years,” reveals Kolk. “We’ve made substantial cost savings by closing the legacy data warehouses, shifting to an alternative licensing arrangement and administering a single centralized enterprise data warehousing platform.”

Looking to the future, Telia Estonia plans to continue building the new data model to gain a unified view centered around customers of their whole service landscape. Kolk concludes: “The Vertica Analytics Platform has made a valuable contribution to our data warehouse strategy. In the near future, we aim to introduce considerably more near real-time data warehousing activities, implement automated code generation and fully automate our document production. Moreover, we plan to use Vertica SQL capabilities onto our Hadoop data lake with external tables.”



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