

BELBİM

Big data analytics platform—powered by Vertica—enables electronic money and payment systems specialist to feed appetites for business intelligence and supercharge growth.

Who Is BELBİM?

Founded in 1987 to provide IT capabilities for the Istanbul Metropolitan Municipality, BELBİM has grown to become a leading provider of electronic money and payment system solutions.

Preparing for business growth

For over 30 years, BELBİM has pioneered digital technology to help reduce friction in passenger journeys. By 2009, the company's substantial investments in research and development on electronic fare collection enabled it to launch İstanbulkart: a contactless public transport card.

Bilge Durusöz, Business Intelligence Manager at BELBİM, elaborates: "Six years ago, we obtained a license from Turkey's central bank to act as an electronic money institution—enabling us to evolve İstanbulkart from a transport card to an electronic payment card. BELBİM has continued to enhance İstanbulkart, which is now available as both a physical card and a mobile app. The latest functionalities include QR code payments, which allow the card to be used in non-transport contexts throughout

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Project Manager
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the city, including grocery stores and retailers."

To support the ongoing expansion of İstanbulkart, BELBİM depends on data. Previously, the company relied on spreadsheet-based approaches for building business intelligence reports—but BELBİM recognized that the old way of working would not scale effectively to support its fast-growing business.

Erkin Şimsek, Project Manager at BELBİM, explains: "In the past, we lacked a purpose-built reporting solution, which meant that our business users had to write SQL queries to extract information from our production systems, and then collate it into large and complex spreadsheets. Because of the manual effort involved, the process was very time-consuming. In addition, the sheer volume of manual queries put significant load on our production environment, increasing the risk of performance issues. We looked for a sustainable and efficient way to provide timely data insights to our decision-makers."

Enabling analytics at speed and scale

Following a public tender, BELBİM engaged Turkcell and Global Maksimum to deliver a big data analytics solution based on Vertica Analytics Platform—a high-performance database platform optimized for massively parallel processing of SQL queries. The new solution also includes a front end based on Tableau, enabling the organization to rapidly build, execute and visualize the results of complex queries.

"We targeted a high-performance platform, and our evaluation of Vertica Analytics Platform convinced us that it was the optimal



BELBİM

At a Glance

Industry

Financial Services

Location

Turkey

Challenge

Improve BI reporting to reduce impact on production system performance and enable better data-driven decisions.

Products and Services

Vertica Analytics Platform

Success Highlights

- + 99% faster access to business intelligence reports
- + Frees time for value-added analytics, enabling better-informed decision-making
- + Allows deployment on commodity hardware
- + Offers linear scalability, facilitating cost-effective future expansion

“While other solutions we considered were locked down on proprietary appliances, Vertica Analytics Platform allows us to select our own infrastructure to optimize cost and performance.”

Bilge Durusöz
Business Intelligence Manager
BELBİM

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solution for BELBİM,” Durusöz recalls. “Another aspect of Vertica Analytics Platform that appealed to us was the fact that it is hardware agnostic. While other solutions we considered were locked down on proprietary appliances, Vertica Analytics Platform allows us to select our own infrastructure to optimize cost and performance.”

Working with its business partners, BELBİM implemented the reporting solution in two phases. First, the company integrated its multiple separate data sources into a central repository in Vertica Analytics Platform which acts as a single source of the truth for analytics. In the second phase, BELBİM will also integrate customer payments data from İstanbulkart, creating opportunities to analyze real-world customer behavior.

Laying the foundation for real-time insight

With Vertica Analytics Platform at the heart of its business intelligence capabilities, BELBİM is achieving its goal of delivering rapid, actionable insight to decision-makers. Using intuitive, drag-and-drop report-building in Tableau—backed by rapid data processing on Vertica Analytics Platform—the company is enabling the business to spend less time preparing data and more time on value-added analysis.

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With practically infinite linear scale-out capacity, BELBİM has the freedom to expand its

Vertica Analytics Platform cluster seamlessly and cost-effectively in line with its growing analytics requirements.

Şimsek adds: “When we started our work with Vertica Analytics Platform, we were using four nodes—but as our data model matures, we will need to increase our compute resources to meet the increased demand. Thanks to the linear scalability of the solution, we can always keep pace with the requirements of the business while keeping our spend under control.”

Şimsek concludes: “One of our next goals is to incorporate streaming data sources such as Apache Kafka into our platform, enabling real-time analytics. We are confident that Vertica Analytics Platform is a future-ready platform that will support our growing business for the long term.”