Japan Tobacco, Inc.

Unleashing lightning-fast insights into sales data to help a global business grow into new markets

Who is Japan Tobacco?

Japan Tobacco, Inc. (JT) is a global tobacco company that operates in more than 70 countries and sells its products in over 130 countries. Its international brands include Winston, Camel, MEVIUS and LD.

Solving Performance and Maintainability Issues

JT is known both in Japan and abroad as a leading manufacturer of tobacco products. The company's overseas tobacco business currently accounts for more than 60% of sales revenue. In recent years, JT has been strengthening its position as a diversified global company, with a focus on pharmaceuticals, processed foods, and other areas.

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JT is working towards a goal of consolidating its domestic and overseas tobacco businesses. The company is migrating from a system of 15 regional sales office and 145 branches to a new system of 47 new sales offices, strengthening its product development and sales structure.

As its business structure evolves, JT has been working to adapt its IT strategy and systems accordingly—with a key initiative centered on improving data utilization. In addition to developing a company-wide data analysis platform, each of JT's departments is advancing its own data utilization initiative. JT's sales department, for example, has consolidated sales activity and sales performance data into a central data warehouse. The department has also developed an integrated sales analysis platform, where users can perform data aggregation and analysis using Tableau software.

However, as the department continued to use the system, several issues became apparent. Li Chenglong, Deputy Manager of IT at JT, explains: "We work with vast amounts of sales data—around 1.3 billion individual data points—which was taking increasingly long to aggregate and analyze. To solve the problem, we built separate data marts on the Tableau server, using data extracts from our data warehouse. However, it was not possible to store

At a Glance

- **Industry**
  Manufacturing

- **Location**
  Japan

- **Challenge**
  Accelerate processing of billions of data points to deliver faster, deeper insight into sales activity and performance

- **Products and Services**
  Vertica Analytics Platform

- **Success Highlights**
  + Cuts processing times for database queries from hours to seconds
  + Maintains high performance even with hundreds of simultaneous connections
  + Offers superior scalability, with the added security of an on-premises platform
  + Provides a stable foundation for supporting future data migrations
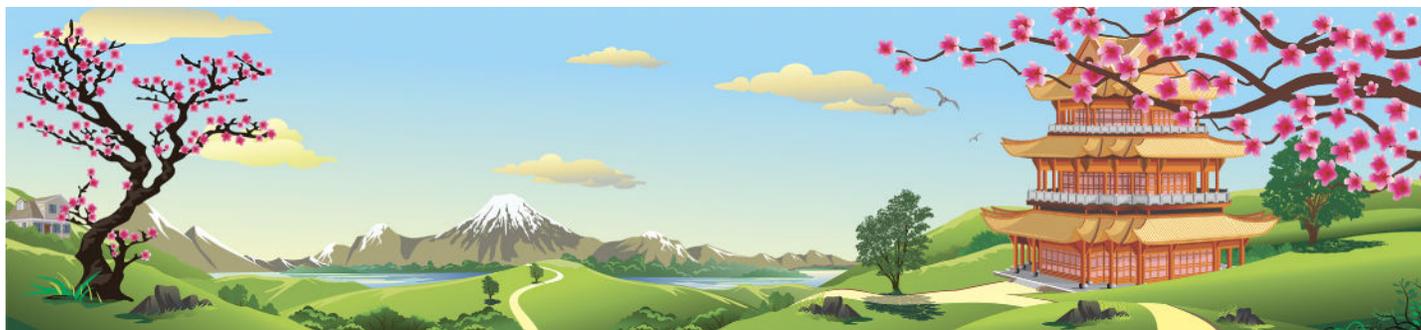
all the data directly in the data marts, which impacted the granularity and freshness of the data being analyzed.

"Furthermore, to accommodate the analytical needs of individual branch offices, we used batch processing to create separate data marts for each application. This was very time-consuming, and jobs often could not be completed overnight because they were so large."

OpenText Enables High-Volume, High-Speed Data Processing on Premises

To solve these problems, JT introduced the HPE Superdome, a high-performance server from Hewlett-Packard Japan. While this brought a much-needed boost to data processing speeds, it was still not possible to achieve sufficient performance without a data mart. This left the company unable to solve its issues around data granularity and freshness. In addition, every time core system specifications were changed, all batch programs at each branch office had to be modified, which cost development teams considerable time.

JT was determined to find a solution that could solve these underlying problems, with Li and his team taking the lead. Initially, the company considered using cloud services, such as Microsoft Azure Synapse Analytics and Google Cloud Big Query, but abandoned this approach due

to security concerns. It was around this time that the team happened to see OpenText™ Vertica™ in action at an exhibition.

"We believed that Vertica (now part of OpenText™), which is capable of high-capacity and high-speed processing on-premises, could solve the problems we faced," recalls Mr. Li. "And as Vertica (now part of OpenText™) was a product that had originally been provided by HPE, we felt it could offer good compatibility with our HPE Superdome. We decided to borrow HPE's environment and run a proof-of-concept."

After developing a data warehouse environment with OpenText™ for evaluation purposes, which mimicked the company's actual setup, JT was able to achieve a level of performance that far exceeded the capabilities of its existing infrastructure.

Mr. Li says: "With our previous environment, it could take up to two hours for database queries to return a response. Vertica's (now part of OpenText™) evaluation environment returned queries in just a few seconds, and we determined that this would solve our problems. Other key factors in our decision to adopt Vertica (now part of OpenText™), were its ability to maintain performance without complicated tuning, and its ability to easily scale out to accommodate future data growth."

Lifting Performance and Stability to New Levels

After deciding to officially adopt OpenText™, JT began a project to modernize the infrastructure supporting its sales integration analysis environment in the summer of 2020. The company built the new database environment with technical assistance from Ashisuto—a third-party vendor and JT's acquisition source for OpenText.

"We encountered some difficulties with certain aspects of the initial installation and configuration of Vertica (now part of OpenText™), but thanks to close support from Ashisuto, we were able to get through it all safely," confirms Mr. Li. "Our vendor who would be handling the actual systems operation had also never used Vertica (now part of OpenText™) before, but the skills transfer went smoothly thanks to the vendor-oriented training provided by Ashisuto."

In parallel with setting up the OpenText environment, the project team also developed a Microsoft Dynamics-based sales support system. JT successfully released both systems in April 2021. For this initial release, the company has not yet migrated data from its old environment. However, JT is already seeing tangible results.

Mr. Li notes: "We developed a new smartphone app that provides direct access to Vertica (now

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part of OpenText™), which is now in use by some 1,500 part-time employees. Even if there are hundreds of simultaneous users, Vertica (now part of OpenText™) barely experiences any stress. We are nowhere near the limits of the platform's capabilities, and it is functioning very stably compared to our previous environment."

Fresh Possibilities on the Horizon

With its second release, scheduled for April 2022, JT's goal is to achieve total migration from the existing environment. As this will mean accommodating a large volume of sales performance data, and many more users, the project team anticipates a much higher processing load.

According to Mr. Li: "Although we plan to perform stress tests to be safe, taking OpenText's current operational conditions into considerations, we have no serious concerns."

JT has already begun exploring various future uses of OpenText, as Mr. Li elaborates: "With Vertica (now part of OpenText™), we have a platform that will allow us to analyze past data and visualize our present circumstances. In the future, we would like to make use of AI to analyze historical data and produce demand forecasts. Fortunately, Vertica (now part of OpenText™) is equipped with machine learning capabilities, which we are currently evaluating."

He concludes: "We hope to further realize Vertica's (now part of OpenText™) potential with respect to other functions as well. We hope that Ashisuto will continue providing us with their invaluable proposals and support."

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