

# HISCOM Improves Data Processing Speed by 3,000%, Cuts Batch Processing Time



HISCOM Co., Ltd  
Tokyo, Japan  
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**Industry:**  
Professional Services

**Employees:**  
70

**Oracle Products & Services:**  
Oracle Exadata  
Oracle Database

*“Oracle Exadata offers the performance and reliability needed for high-speed and high-volume online transaction processing. We have improved data processing speed by 3,000% and shortened batch processing time by 97%.” – Atsumasa Shimizu, CEO, HISCOM Co., Ltd*

Founded in 2003, HISCOM Co., Ltd is the systems integration business of the Hokuriku Coca-Cola Bottling Co., Ltd. HISCOM was established to provide IT services to Hokuriku Coca-Cola Bottling and external clients. These services include planning, design, research and development, and the sale of information systems. The company also runs shared services and call centers.

Hokuriku Coca-Cola Bottling was running a large number of systems, an Oracle Database and a Teradata data warehouse to process and analyze sales and order data from Coca-Cola retailers and vending machines. The amount of data could reach more than 5 million records a month. As the volume of data increased, it started taking longer to store, extract, process, and load it into the data warehouse. Queries and batch processing slowed down, hampering the ability of staff to work efficiently.

To address these issues, Hokuriku Coca-Cola Bottling engaged HISCOM to implement Oracle Exadata. The storage software enabled Hokuriku Coca-Cola Bottling to improve data processing speed by more than 3,000%, which shortened batch processing time by 97% and enabled complex search queries to be completed in five seconds, compared to three minutes in the past. Hokuriku Coca-Cola Bottling also eliminated data warehouse licensing costs.

## Processing Growing Data Volumes

In 2005, HISCOM developed an infrastructure based on Oracle Database, Oracle Real Application Clusters, and a Teradata data warehouse to enable Hokuriku Coca-Cola Bottling to process and analyze large volumes of business information. This included order data and itemized sales information from Coca-Cola retailers and almost 6,000 Coca-Cola vending machines.

**Key Benefits:**

- Improved data processing speed by more than 3,000%
- Shortened batch processing time from 50 minutes to 80 seconds
- Enabled complex search queries to be completed in five seconds, compared to three minutes previously
- Eliminated data warehouse licensing costs
- Provided sales representatives with accurate, up-to-date data that can be used to engage existing and potential customers
- Gave technicians the skills to help clients migrate to Oracle Exadata

The data was stored in the Oracle database, then extracted, processed, and loaded into the Teradata data warehouse for analysis.

With data volumes reaching up to 5.35 million records a month, it was taking longer to process data. For example, it took more than ten minutes to return a complex search result, and increasing data volumes caused a risk of incomplete batch processing.

The heterogeneous database and data warehouse environment was also becoming difficult to manage. System specialists were needed to maximize the performance of every component; if there were any changes in the business, various systems had to be configured to enable analysis to take place.

According to HISCOM CEO Atsumasa Shimizu, greater processing power and flexibility was needed. “To analyze growing amounts of data, we needed a high-speed processing solution for our data warehouse,” he said. “We also needed a more adaptable solution to help improve internal control.”

HISCOM also wanted to make stored data available to senior managers and the planning division in real time. Introducing this capability would also see an increase in the number of users.

**Faster Data and Batch Processing**

In 2009, HISCOM implemented Oracle Exadata, after a proof-of-concept revealed that the software improved data processing speed by 3,000%, compared to using a separate database and data warehouse to complete the same function.

After the solution was deployed, Hokuriku Coca-Cola Bottling experienced significant improvements in data processing speed. Faster data ‘reading’ has speeded up batch processing time from 50 minutes to 80 seconds, meaning order, logistics, sales, and financial reports can be provided to managers much faster. Complex search queries are now completed in five seconds, compared to three minutes previously.

**Licensing Costs Eliminated**

There is also no need to extract, process, or load data from the Oracle database to the Teradata data warehouse as these processes are integrated into Oracle Exadata. This has enabled Hokuriku Coca-Cola Bottling to eliminate Teradata licensing fees. Moreover, it can extend processing power by simply adding disks

or processing units. This ensures the required performance can be obtained with minimal investment.

### **Faster Analysis**

The Oracle Exadata environment ensures all new data is included in business intelligence analysis. This has improved the timeliness of data and enabled Hokuriku Coca-Cola Bottling sales representatives to engage existing and potential customers with accurate information.

“This could not have been achieved if we had continued to operate our database and data warehouse as separate systems,” said Takeyuki Watanabe, director, system division, HISCOM.

### **Oracle Skills to Assist in Client Projects**

The Oracle Exadata implementation at Hokuriku Coca-Cola Bottling provided HISCOM technicians with a good understanding of the product and how to make a smooth transition from Teradata. According to Katsumi Takayori, sales vice manager, HISCOM, the company will use this knowledge to build its systems integration business.

“We will take advantage of the skills gained on the Hokuriku Coca-Cola Bottling project to assist clients planning to implement Oracle Exadata,” he said. “We hope to build a closer partnership with Oracle to maximize the performance of the Oracle solution in our clients’ sites.”

### **Why Oracle?**

Hokuriku Coca-Cola Bottling was running its Oracle database and Teradata data warehouse on two servers. This was one of the reasons why performance was slow, as the hardware was struggling to run two data-intensive applications.

HISCOM had embarked on a server consolidation program on behalf of Hokuriku Coca-Cola Bottling in 2007 to reduce the number of physical servers, as well as cut server licensing and maintenance costs. The company implemented virtualization software to consolidate servers but found it too challenging to move the database and data warehouse to a virtual server.

Oracle Exadata was a possible solution to this problem, as the software could function as both a database and a data warehouse. It also offered powerful data processing capabilities and the high reliability needed for online transaction processing.

HISCOM undertook a proof-of-concept to validate the performance of Oracle Exadata, using actual data and several SQL searches. The result—data was processed 30 times faster—was “far better than we expected”, according to Watanabe, and convinced HISCOM to implement Oracle Exadata.

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