Case Study
Mizkan Group

Fujitsu M10 delivers an analysis infrastructure to support marketing and management decisions. Rapid migration and 12x faster retrieval performance

The Mizkan Group (Mizkan), a Japanese food manufacturer, replaced their Enterprise System which centrally manages and analysis sales data necessary for marketing and management decisions. After a detailed evaluation of benchmarks, initial costs, and running costs, Mizkan selected the UNIX server Fujitsu M10 enhanced with PCI flash storage as it could deliver the highest level of cost performance. Furthermore, the ability of the solution to significantly reduce construction time and simplify migration also proved to be important factors in the decision. Following installation, Mizkan will be able to boost productivity and quality through dramatic improvements in search functionality and batch processing speeds.

Overview

"We expect that increasing response speed will lead to improving the speed and quality of work. For example, if search time drops from 6 seconds to 0.5 seconds, you can immediately check information. Sales representatives check information everyday using the three categories of product, customer, and organization, but now they can speedily check that information and quickly move onto the next action. Also, the Marketing Department can now work efficiently without breaking their train of thought." (Mr. Tahira)

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<th>Challenges</th>
<th>Solutions</th>
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<td>Improve slow response times resulting from an increase in sales and management data</td>
<td>By combining Fujitsu M10 with PCI Flash Storage, Mizkan can perform searches 12 times faster than compared to the previous system. This will also contribute to more responsive on-site decision making.</td>
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<td>Need for outstanding cost performance</td>
<td>Mizkan performed benchmark tests on servers from multiple vendors to identify which one had the optimal balance between performance and cost. Focusing on running costs and the initial investment of each server, Fujitsu M10 delivered the highest level of cost performance.</td>
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<td>Fast and secure migration that minimizes additional expenditure</td>
<td>Using the virtualization function of Oracle Solaris Zone and Oracle Solaris Legacy Containers, Mizkan completed construction and verification in approximately one month. In conjunction with the cutting-edge Fujitsu M10, this lead to a reduction in migration costs and enabled the business to resume full operation quickly.</td>
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As interest in Japanese culinary grows around the world, demonstrated by the addition of various Japanese cuisines to UNESCO’s Intangible Cultural Heritage list, Mizkan is being presented with more opportunities to succeed. This has already seen strong support from a number of overseas customers.
for products such as NAKANO® Natural Rice Vinegar and 白酢® (SHIRAGIKU® Rice Flavored Distilled Vinegar). As such, under the new mid-term management plan for FY2014 - FY2018, the Mizkan Global Synergy Strategy will drive global promotion across Japan and other parts of Asia, North America, and Europe.

Shingo Nakamura, General Manager of the Information Technology Department, responsible for Mizkan’s complete ICT environment, describes the role of his department in contributing to future business success. “Delivering ICT that can drive our business forward is the most important aspect of the Information Technology Department. This includes ensuring effective ICT systems and structures are in place to support efforts directed at globalization, while also leveraging these systems to continuously improve our domestic activities and management.”

Of these infrastructures, one of the most critical is the information system which performs analysis essential for everyday business activities. However, due to an increase in data over recent years, improving the response time and improving processing speed of the system have become the focus.

Key Installation Points
Cost performance and ease of migration

The information system is used by personnel from various departments, and centrally manages and analyzes sales data necessary to support effective marketing and management decisions. While the system’s previous response issue is partly attributed to its aging, there has also been changes to the need for data analysis.

Hioki Tahira, Manager of the Information System Development Section 2, Information Technology Department said, “Unlike when the information system was installed 5 years ago, there is an increasing need to store and analyze more data. However, it has become difficult to promote the use of this information if the search performance decreases with ever increasing amounts of data. When response time is slow and searches take a long time, it can also interrupt the train of thought.”

In using information to support on-site judgments and decision-making, speed leads to a competitive edge. The Mizkan started the investigation for a new server that would be the core for the next information system. To find a balance between performance and cost, they tested benchmarks for cutting-edge systems provided by various companies. They tested in-memory products, data warehouse technology. “As a result of the benchmark tests, we discovered that the Fujitsu M10 can make the most of performance and cost. From the perspective of cost, we not only considered the initial cost, of course, but also the maintenance fees and updates 5 years from now,” said Ichiohiro Morita, Management Information System Section, Information Technology Department.

The cost and time required for migration were also important factors when deciding to use the Fujitsu M10. Mr. Morita said, “If we touched the current Solaris resource, it would not only cost a great deal of time and money, it would also create some risk. The PCI flash storage and Fujitsu M10 combination proposed by Fujitsu was excellent in cost performance. We highly valued Fujitsu’s technical prowess and results, which made it possible to use our current resources and construct the system safely, quickly, and with peace of mind. After considering everything from a comprehensive point of view, we selected the Fujitsu M10.”

System Overview
Using Fujitsu M10 as the base and massive PCI flash storage capacity for a total of 20 TB

The decision to use the Fujitsu M10 was made in November 2013. Construction and verification were carried out for about a month starting in January 2014, and in February that year, the switch to the new system was carried out on a holiday to keep the effect on business to a minimum. Mr. Morita says the sense of speed to accomplish migration in approximately a month was also a major merit. “Normally, for migration with a system of this scale, half a year is spent on verification and prior confirmation. But this time, there was no such hassle whatsoever. We were able to migrate previous information system operating on the SPARC Enterprise T5240, M4000 using virtualization functions of Oracle Solaris Legacy Containers. Without touching the previous, stable resources, we switched to a cutting-edge high functioning machine. The sense of speed is very important.”

The new information system uses the Fujitsu M10 as the base, which requires high performance and high reliability, and high capacity PCI flash storage for a total of 20 TB. All DB files were constructed on the PCI flash storage. Also, by using Oracle Solaris Zone and Oracle VM Server for SPARC, which constructs multiple virtual hardware environments in the firmware layer, we achieved an environment that allows Oracle Solaris 11, Oracle Solaris 10, and Oracle Solaris 9 to coexist. The system, which conventionally operated on two servers, was consolidated to one. Also, we achieved backup operation using the snapshot functions in Oracle Solaris ZFS, provided free of change, making cost reduction while using the latest technology.
Result of Installation and Future Prospects

Retrieval performance improved up to 12 times as well as batch processing up to 5 times.

By installing the Fujitsu M10, the search speed improved by up to 12 times and batch processing by up to 5 times compared to the previous SPARC Enterprise T5240, M4000. Mr. Tahira says, "We expect that increasing response speed will lead to improving the speed and quality of work. For example, if search time drops from 6 seconds to 0.5 seconds, you can immediately check information. Sales representatives check information everyday using the three categories; product, customer, and organization. Now they can quickly check that information and quickly move onto the next action. Also, the Marketing Department can now work efficiently without breaking their train of thought."

Regarding future development, Mr. Nakamura says, "Today, the need of analysis and processing using a large amount of data is rising. We believe it was very significant to establish an information system infrastructure that achieves high-speed processing with low cost while anticipating the future. We hope Fujitsu will continue to offer total ICT solutions for Mizkan from the same point of view as us."

Mizkan Headquarters district redevelopment image

From Japan to across the world, the Mizkan continues to strive to create new value for Japan’s food culture. Fujitsu will use its leading technology and comprehensive capability to support Mizkan’s continued success.

Corporate Profile

Mizkan Group

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<tr>
<th>Headquarters</th>
<th>2-6 Nakamura-cho, Handa city, Aichi prefecture</th>
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<tr>
<td></td>
<td>475-8585 Japan</td>
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<tr>
<td>Representative</td>
<td>Kazuhide Nakano (Chairman and CEO, Mizkan Holding Co., Ltd.)</td>
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<td>Established</td>
<td>1804</td>
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<td>Number of employees</td>
<td>Approximately 2,900 (as of March 2013)</td>
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<td>Business details</td>
<td>Mizkan Holdings Co., Ltd. was established as the new group headquarters to respond to business globalization. Business is managed in three areas: “Japan and Asia”, “North America”, and “Europe”. Mizkan Holdings bears the role to support and control each business and contribute to business improvement for the whole group.</td>
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<td>Website</td>
<td><a href="http://www.mizkan.net/">http://www.mizkan.net/</a></td>
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(Note)
- This system was handled by multi-vender support through Fujitsu FSAS Inc.
- "ICT" is an abbreviation for Information and Communication Technology.