

Windows 2000 Based
Fault Tolerant Server

NEC Express5800/ft series

Case Study

KOZMIC CORP.

In April 2002, the Information System Department of the Koizumi Sangyo Corp., a well-known manufacturing and wholesale company for light fixtures and furniture, broke off and established the independent KOZMIC Corp. The NEC Express5800/ft series was introduced to support the transfer to the Enterprise Information Portal (EIP) concept of the old in-house information content, which have been accumulating since 1996.



The Fault-tolerant Express5800/ft series: used to support the increasing accumulation of contents for further growth

Purpose of Implementation	System Outline	Advantageous Effect	Customer Profile
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Purpose of Implementation

■ Employee-centered intranet construction



Head of
Open Development Section,
Business Development
Hiroshi Motofusa

In recent days, it is not uncommon for companies to have an intranet environment in a company, but the Koizumi Sangyo Corp. had incorporated one when it was not so common, back in 1995. At that time, the company had considered the implementation of groupware, when it was first being noticed. However, they decided that it was not the right time and so they constructed an intranet server for e-mail and Web information. In 1996, The Express server was implemented and the production of information contents began.

What is unique about this company is the fact that every aspect of the company system, planning, development, and operations are done mostly within the company. The administrators of the company felt that the people in the company must take part in the operations and the suggestion making of the company's computer system.

The Information System Department manages the company's entire system, but most of the 20 departments have personnel in charge of the individual systems who create the CGI-based contents, using HTML, Perl and ASP.

"During the first three years, we had people in the work place create and load the contents freely", states Hiroshi Motofusa, head of the Open Development Section, Business Development Department, of the KOZMIC Corp. Established in April 2002, the KOZMIC Corp., before they broke off, was formerly the Information System Department of the Koizumi Sangyo Corp.

In 6 years, the Express servers came to store about 5 gigabytes of content. These contents are vital for the company to perform daily routines. They include the monthly notifications and performance reports, daily journals, company regulations, applications, sales reports and human resources information.

■ Having accumulated contents, recognize the importance of fault-tolerant system

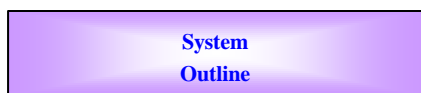
“Suddenly I noticed that there was a lot of important content, not only for the individual departments, but for the entire company as a whole. This is when I felt the necessity for a fault-tolerant system”, explains Motofusa.

Certainly, they had considered different measures against system faults for their content servers. One consideration was the redundant hard disk configuration using RAID5, another was the clustering of two Express server systems.

They actually had the idea when they first installed the Express server. However, the implementation of a shared disk cluster system would have cost more than 10 million yen when they installed the Express server in 1996, so they decided on the lower priced Co-StandbyServer. (Legato Systems, Inc., formerly the Vinca Company).

With this solution, they created a system, which could quickly failover to a standby server if a failure were to occur in the active server.

Ideally, it would be best if no failures were to occur. One day, Motofusa noticed that the server had failed over and that the standby server was active. “Thanks to NEC’s appropriate support, we were able to recover the system. Since Co-StandbyServer had a strict procedure for failing back the standby server, there could have been a big problem if we had taken a wrong step. Looking back, I felt that the complicated settings and operations could only be understood by companies system administrator, and taking in considerations of unexpected faults such as power failure, we needed a system environment that we could feel comfortable with which could operate in any environment.”



■ Upgrading to the Express5800/ft series

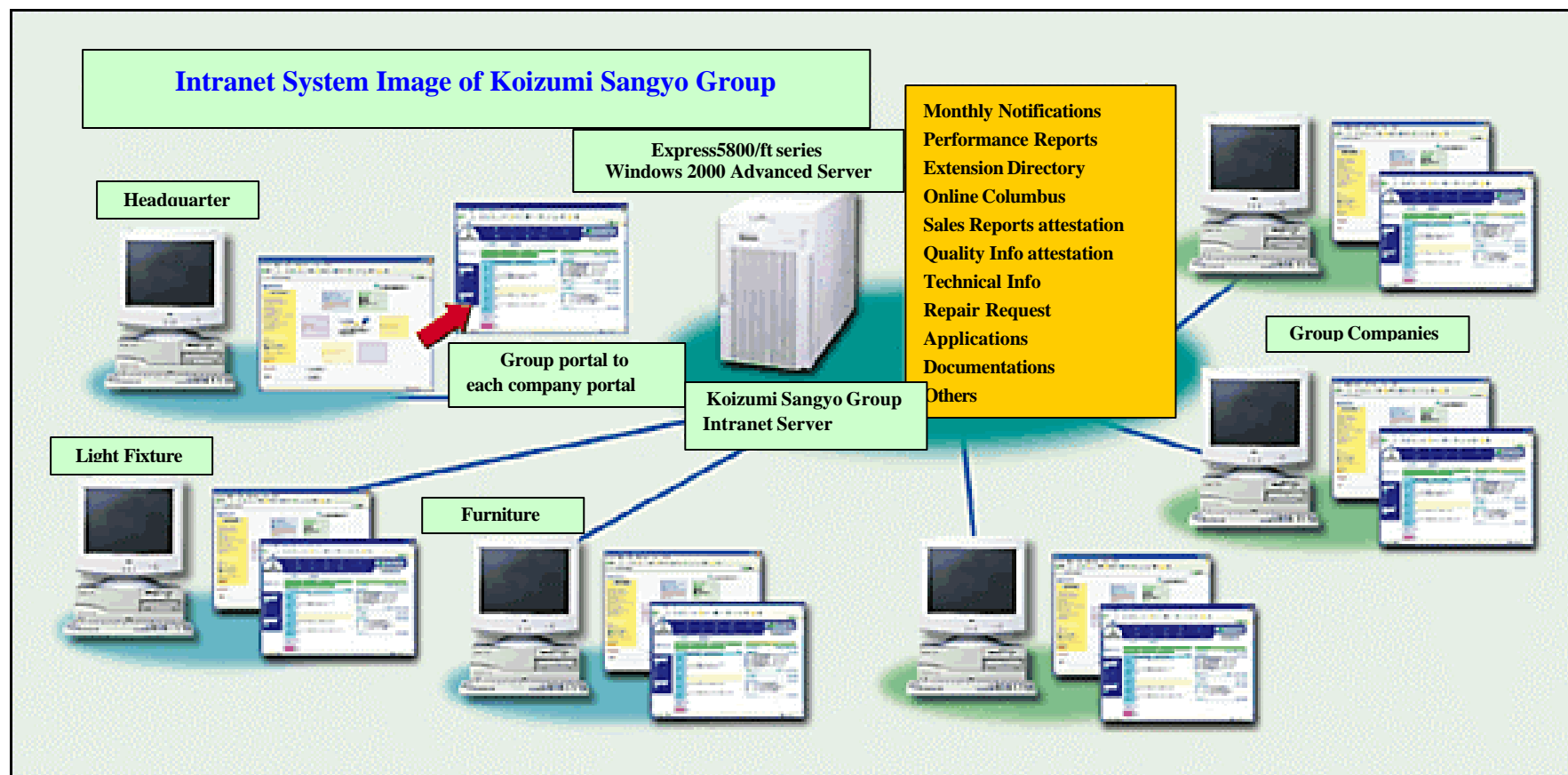
With the establishment of the KOZMIC Corp., they decided to upgrade the Express server to the Express5800/ft series. Along with this upgrade, they decided to provide a Web hosting service for the Koizumi Sangyo group, including its associated companies. The Express5800/ft series is installed with the Pentium III 800MHz CPU, and operates under the Windows 2000 Advanced Server system. Most major hardware components are duplicated, and the two 18.1GB hard disks are mirrored so that the data too can be duplicated.

“We decided to provide Web hosting services for our group and associated companies, because we felt that down the line they may individually want to create an intranet or internet site for their company or their company’s customers.”, says Motofusa.

A reason for upgrading to the Express5800/ft series is that they desired to have a server environment, which never shuts down. This is due to the importance and availability of their information contents, as previously mentioned. Another reason for implementation was the variety in the company’s computer systems. With the existence of various departments, such as showrooms, which are open on weekends, they required a system, which is operational 24 hours a day and 365 days a year and would never stopped.

Motofusa talks about the reasons for selecting Express5800/ft series. “The main reason was the price. It used to cost over 10 million yen, but now it is available at a few million yen. We also, experiencing the aforementioned problems, needed a server that was easily managed. We liked that the Express5800/ft series had a much simpler configurations than that of a cluster system. Also its ease of administration and configuration, which in turn may reduce the cost of operations, is important. In addition, having a good after-sales service is an important requirement. We had known of NEC since 1982, when we installed the ACOS mainframe system in our backbone distribution support system, so we knew well the kind of services and support that NEC provides during trouble occurrences as well as during regular operations. The truth is that we felt comfortable and trusted them.”

The Koizumi Sangyo Corp. has created the subsidiary KOZMIC Corp. as well as their in-house companies such as Light Fixture and Furniture, and has set up numerous associated groups. The Express5800/ft series is to protect the information contents and communication lifeline of the entire Koizumi and associated companies group, 24 hours a day for 365 days a year.



Advantageous Effect

■ The Fault-tolerant Express5800/ft series for systems that cannot be stopped

With independence of the in-house and associated companies, we have entered a time where we must consider the reconstruction and unification of the intranets for the entire Koizumi Sangyo group.

As a consultant, The KOZMIC Corp. has started making suggestions on how the individual portals for the in-house company level and associated company level should be configured or how messaging should be transferred amongst the management groups. As one of the approaches, the KOZMIC Corp. is examining EIP.

“Digging through the buried information contents, we have structured a company-wide messaging and department specific portal system. However, it is still a mess so we are currently working on making each department’s individual sitemap. Aside from the organization of the buried contents, the personnel in the individual departments will not be able to organize the system further up the chain, so the company is considering the Enterprise Information Portal approach for the management of contents.” says Motofusa.

Enterprise information portal (EIP) allows access to the various information stored in a company’s systems through a Web browser. Groupware mainly aims at optimizing entire corporation information management, where as but EIP optimizes each individual portal. In this aspect, EIP is the best choice for the company’s communication server, which operates independently of the backbone system.

“Now, we will clean up the information contents and implement the EIP strategy, and at the same time, change to a Web-based three-tiered configuration. After the integration, we will link the system to the company’s backbone system. In this process, the implementation of the Express5800/ft series was the first step. We introduced them into our systems, such as the Web ordering system, which required an inexpensive fault-tolerant server which can operate 24 hours a day with non stop.”

Customer Profile



Corporate name	KOZMIC Corp.
Head office	5-8-21 Nihonbashi, Naniwa-ku, Osaka-shi, Osaka
Established	April 2002
Sales	1.5 billion yen (estimated)
Employees	50

Services which the KOZMIC Corp. offer are system design, development, operations services, computer/computer networking consulting services, computer devices and software distribution, and communication device-related projects. They have developed multiple applications, such as, “PRODUCE”, a sales management package software, and “ACTIONFACE”, an order placement and inventory confirmation system which can utilizes automatic handwriting recognition of fax machine data input.