

TOKAI

Customers Count on Stratus

Reliably automating direct payments with Stratus® ftServer® System

TOKAI Co., Ltd. serves Japan's consumers with integrated services basic to a modern lifestyle, from energy to communication. From its headquarters in Shizuoka Prefecture, TOKAI provides households in the populous Kanto region (near Tokyo) with liquified petroleum (LP) and city gas, Internet access, cable TV, housing, security, insurance, wedding arrangements, and more.

Consumers pay for these services through automatic withdrawal of funds from their personal accounts. For example, the host computer in TOKAI's Information Center calculates monthly usage to compute service fees for each customer using cable TV, Internet access, and LP gas. Debit requests are then generated for each account being billed.

These debit requests were formerly submitted using magnetic tapes sent individually to local banks, city banks, post offices, and other financial institutions. The physical process took one to two days.

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Mr. Hisayoshi Hayakawa
Vice-Chief
Business Development Department
TOKAI Co., Ltd.

“From a managerial standpoint, it was increasingly necessary to resolve this delay,” says Mr. Hisayoshi Hayakawa, vice-chief of TOKAI's Business Development Department.

Using electronic transmission to communicate with financial institutions would eliminate the need for magnetic tapes, cut costs, and increase the efficiency of the monthly automatic withdrawals. Furthermore, online information exchange would permit more accurate error checking and correction, ensuring more reliable services for customers.

Implementing such a system raised one important issue, however. “Above anything else, we wanted reliability. No customer would allow us to withdraw money automatically from their personal accounts without a reliable system,” Mr. Hayakawa explains.

Connecting with the right server

In charge of implementing the data transmission system was VIC (Valuable Information and Communication) TOKAI Co., Ltd., systems integrator for information technology services offered by the parent company, TOKAI Group.

“We wanted to use our own know-how regarding system architecture,” said Mr. Masayuki Masuda, the system group leader, SI (Systems Integration) Department in the IT System Division.

VIC TOKAI selected its own electronic data interchange (EDI) package, known as Java™ File Transfer System, or JFT Server. The package facilitates reliable and fast EDI integration while supporting the necessary protocols, scheduling of automatic file transfers, and monitoring of data communication through Web browsers.

After that decision was made, notes Mr. Masuda, “Our main task was selecting hardware that was highly compatible with the reliability aspects of this software.”

A UNIX® cluster system was considered initially. But its weaknesses became apparent upon careful investigation. The main drawback was cost. A UNIX cluster would not only be expensive to purchase, but worse, it would be expensive to operate and maintain. While an individual UNIX server would be relatively inexpensive, a server cluster would be costly to operate.

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“Further, there was an issue of development time,” Mr. Masuda adds. The schedule seemed tight given that the UNIX cluster would require customization of complicated middleware. It was unclear whether TOKAI could achieve its approaching year-end goal of implementing electronic data communications with several financial institutions.

Built-in reliability, smooth development

“Just when we were throwing our hands up in the air, we got welcome news from SI Management. They identified a hardware platform that met our needs,” says Mr. Masuda.

What VIC TOKAI’s SI Management Section — a long-time business partner of Stratus Technologies — had found was the ftServer® system. The industry-standard Stratus® ftServer line is a fault-tolerant family of Intel® processor-based servers for Microsoft® Windows® server environments.

The use of Stratus Continuous Processing® technology provides built-in protection that maximizes uptime. The ftServer system’s lockstep hardware — including replicated CPUs, memory, and disks — and failsafe software work together to detect and isolate issues before they cause downtime. A malfunctioning hardware component is automatically removed from service, for example, while its replicated partner functions as an active spare. Value-added, failsafe software features prevent many software errors from escalating into outages. The server continues processing without interruption.

“The system can run continuously without rebooting. This should better enable us to maintain reliable data communication with our financial partners,” Mr. Masuda states.

Moreover, the ftServer system is more economical to operate than the proposed UNIX cluster. The Stratus server was expected to save over a 100,000 yen a month for TOKAI. “It was exactly what we were looking for,” observes Mr. Masuda. As system implementation began, it became clear that the deployment process would be rapid as well — enabling TOKAI to meet its deadline for rollout. The ftServer system runs JFT Server for Windows as well as HULFT for Windows, a file transfer package.

Off-the-shelf Windows software runs without modification on the ftServer system; its single-server image allows operating

systems and applications to transparently take advantage of Continuous Processing capabilities. Unlike UNIX clusters, no complicated customization or middleware was needed to safeguard system availability.

Mr. Hiromitsu Kurebayashi of the Operation Division of the Information Center at TOKAI, which oversees system architecture and implementation, underscores the merits of the Stratus server: “The ftServer system enables fault-tolerant systems to run reliably in a familiar Windows environment, simplifying further system development and ongoing operation.”

From magnetic tape to EDI

Currently in the data transmission system for the direct debit, account information from the host computer is delivered to the ftServer system, where the payment requests are sent to financial institutions using JFT Server. In turn, transaction data from financial institutions are received by the ftServer system then processed by the host computer. Processing enormous volumes of data from over 500,000 TOKAI customers has been error-free.

Mr. Masuda from VIC TOKAI goes so far as to claim that the ftServer system, with its Windows operating system base, has the potential to transform TOKAI’s IT services. “It’s possible to obtain a highly flexible system easily, without requiring detailed know-how of system architecture. In combination with our JFT Server, small and medium enterprises can also build advanced EDI systems quickly,” he explains.

And TOKAI continues to expand its network, building connections to more financial institutions. TOKAI originally connected with four financial institutions; that number was projected to rise to 30 by the end of 2002.

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Mr. Hiromitsu Kurebayashi
Information Center Operation
Department
TOKAI Co., Ltd

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