Desktop Virtualization Solution

Tokio Marine & Nichido Fire Insurance Co., Ltd.

Customer

• Tokio Marine & Nichido Fire Insurance Co., Ltd.

Industry

• Financial

Challenges

• Burdening manual management to ensure extremely tight information security
• High desktop failure rates and related costs
• Unprecedented VDI system scale of 26,000 or more users

Solution

Desktop virtualization solution, Virtual PC Center (VPCC), for safe and simplified desktop management.

• Pooled virtual desktops: Virtual PC sharing
• Virtual PC server platform: NEC Express5800/B120a blade servers
• Thin client terminals
• Shared storage: NEC SAN Storage D Series
• Enhanced session management function: Client Management Option

Results

• Workload reduced through centralized information management: manually implemented security rules reduced from 40 to 6
• Reduced data leakage risk due to having no local storage
• PCs no longer need to be moved when personnel are transferred
• 30% reduction in operating costs
• 90% reduction in terminal failure rates
• Fewer virtual PCs than users
• Higher server resource utilization

Introduction

Searching for a solution to the ever-increasing workload of information security management staff and spiraling operating costs, Tokio Marine & Nichido Fire Insurance Co., Ltd. (Tokio Marine & Nichido) decided to install NEC's desktop virtualization solution Virtual PC Center (VPCC). The project proved highly successful, with all 26,000 terminals in Tokio Marine & Nichido offices nationwide now centrally managed by VPCC, resulting in a 30% decrease in operating costs.

Challenges

In 2009, Tokio Marine & Nichido launched *Innovation and Execution 2011*, a mid-term initiative outlining strategies for achieving sustained growth by focusing on product and service quality. This initiative places strong emphasis on information security as a criterion for selection by customers.

Takeo Kono, manager of the Business Process Design Group in the IT Planning Department at Tokio Marine & Nichido Fire Insurance Co., Ltd., elaborates: "Insurance companies handle a lot of personal information—not only the customer's name and age, but also details such as what car they drive, what kind of house they live in, and who else is in their family. Our staff need to be able to access this information from their computers, so we have to implement extremely tight information security."

Tokio Marine & Nichido already had a stringent information security system. In addition to a secure IT system, there were as many as forty rules for information management conducted by individual employees. Details about the use of external media or terminals out of the office were logged, and rule compliance was strictly monitored by supervisors. However, the increase in the number of rules had created a lot of extra work for staff, fueling calls for system improvement.

The company also saw that to enable sustained growth, there would need to be a significant reduction in desktop-related costs. The costs of purchasing and maintaining the 26,000 PCs in offices throughout the country had become prohibitively expensive.

"Recently, we've had up to 300 PCs fail every month," says Yuji Takahashi, general manager of the Open Infrastructure Services Department in the IT Services Division at Tokio Marine Nichido Systems Co., Ltd.

"We decided that our only solution was desktop virtualization, because there was a need to make a fundamental change in the system itself," recalls Kono.

Solution

Because the scale of the virtualized desktop system required was very large, Tokio Marine & Nichido requested proposals from a number of vendors before settling on NEC. Kono explains: "We chose NEC for their virtualized PC sharing technology, as well as their experience and proven results in the field."

Virtualized PC sharing is a unique operating model used by VPCC. Users are not assigned a specific virtual PC, but instead, every time a user logs in, they are assigned a pooled virtual PC.

"Not all the computers in an office run concurrently," explains Hiroshi Muto, general manager of the IT Designs Department in Tokio Marine Nichido Systems. "With virtualized PC sharing, we could reduce the number of terminals and further reduce the number of virtual PCs, improving server utilization."

NEC had a proven track record of delivering successful outcomes in VPCC projects, including an 8,000-terminal scale system for its own company.

"The scale of our project was unprecedented: no one in the world had ever created a virtualized desktop system for 26,000 users before," says Kono. From fiscal 2011, the system would also be adopted by the Tokio Marine & Nichido Life Insurance Co., Ltd., expanding the scale to a total of 40,000 users, 30,000 thin client terminals, and 25,000 virtual PCs. "We planned one year for the switchover, but we ended up reducing it to about 6 months," recalls Kono. "NEC's system had a very high precision and we encountered virtually no problems during switchover. It was a real testament to NEC's knowhow and excellent support that the switchover went so smoothly."

The virtual PCs were provided with a standard set of applications for all users, while mission specific applications were made accessible to users in necessary departments through application virtualization technology. The system also ensured business continuity by basing the servers accommodating the virtual PCs at Tokio Marine & Nichido's two data centers, to provide for disasters or other mission critical situations.

"NEC was able to provide the right solution for our unique needs," says Takahashi. "For example, we needed to be able to seamlessly log into the system from any of our 26,000 thin clients nationwide, so NEC made significant enhancements to VPCC's session management function, or the Client Management Option, to allow us to do this."

Results

With VPCC in full-fledged operation at all offices in Japan, Tokio Marine & Nichido is already seeing a number of important benefits.

The risk of information leakage or loss has been largely eliminated because in a virtualized desktop environment, data is not stored on the terminal or external media. Employees now have far fewer security-related issues to worry about and can concentrate on their primary mission, which is to provide customer support and help the company's agents.

The project has also led to a 30% reduction in total operating costs by cutting the costs of computer purchase, setup, distribution, repair, and help desk support. "Terminals without hard disks rarely fail. Our failure rate dropped by 90% and the risk of data loss has been eliminated because all data is automatically backed up on the file server," explains Takahashi.

Virtualized PC sharing also allows staff access to the required desktop environment wherever they are, saving the company time when reorganizing offices or transferring personnel. It also makes it easier to implement paperless meetings and innovative ways of sharing information.

Tokio Marine & Nichido intends to use this desktop virtualization project as a catalyst for implementing a fundamental change in its employees' work style. "We are also very excited about the fact that virtual PCs can be accessed from anywhere because we're hoping to create a mobile environment in which our staff can securely access the information they need while out of the office," concludes Kono. "I'm sure we'll face many challenges, but I feel confident that we can work together with NEC to overcome them and succeed."

About

Established in 1879, Tokio Marine & Nichido Fire Insurance Co., Ltd. is a long standing insurance provider, who maintains a strong position in both the domestic and international markets by offering "just-right" insurance solutions and developing original insurance products such as its flagship "Super Insurance", an innovative package that includes life insurance, non-life insurance and consultation services.

Computer center A

Virtual PC Center

Shared virtualized PCs

Virtual PC	Virtual PC	Virtual PC
Apps 1	Apps 1	Apps 2
Windows XP	Windows XP	Windows XP

Virtual PC server infrastructure

Management server (Server and client) — Virtual PC server Express5800/B120a — Shared storage NEC Storage D8-3020

Application server, printer server, etc. — File server

Computer center B

Virtual PC Center

Shared virtualized PCs

Virtual PC	Virtual PC	Virtual PC
Apps 1	Apps 1	Apps 2
Windows XP	Windows XP	Windows XP

Virtual PC server infrastructure

Management server (Server and client) — Virtual PC server Express5800/B120a — Shared storage NEC Storage D8-3020

File server — Application server, printer server, etc.

Bidirectional replication (also for business continuity)

Intra-company network

Ultimate system scale (Group companies included)
Users: approx. 40,000
Thin clients: approx. 30,000
Virtual PCs: approx. 25,000

Head office — Branch A — Branch B

Thin client terminals: 30,000