SEKISUI DIAGNOSTICS

EMC VNX unified storage and EMC Avamar accelerate data center rollout, delivering business agility and top performance for virtualized enterprise applications

ESSENTIALS

Challenges
- Needed to rapidly build a new data center from scratch
- Demand for accurately scaling infrastructure requirements

Solution
- EMC VNX unified storage
- EMC FAST Suite
- EMC Avamar deduplication backup software and system
- VMware vSphere

Results
- New data center build-out in three months
- Excellent performance for highly virtualized environment
- Agility to handle 50 percent increase in requests from developers and users
- Deliver IT services in a day or two versus a week
- Virtual machine provisioning in minutes
- 10:1 reduction of backup data

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Consulting. Engineering. Integration.

Sekisui Diagnostics serves diagnostic manufacturers and clinical laboratories worldwide with a unique product portfolio comprised of diagnostic intermediates or critical raw materials, finished reagent kits for use on clinical chemistry analyzers, and point-of-care rapid tests.

The Framingham, Massachusetts-based firm, recently divested from Genzyme Corporation, was tasked with rapidly building its own data center from scratch. Having previously relied on shared services from Genzyme, a 10,000-employee biotechnology company, Sekisui needed to accurately scale infrastructure requirements for its 500 global users.

"As a new and much smaller company, we lacked the sizing tools to determine our precise requirements out of the gate," explains Michael DiBenedetto, Sekisui's manager of IT infrastructure services. "So we needed a solution with the flexibility to grow and adapt as our workload demands became better defined, without requiring us to rip and replace hardware in the data center when requirements increased."

VERSATILE SOLUTION FOR VIRTUALIZED BLOCK AND FILE DATA

As the cornerstone of its data center, Sekisui implemented EMC® VNX® unified storage configured with Flash, SAS, and NL-SAS drives and the EMC FAST Suite. Sekisui's FAST Suite includes Fully Automated Storage Tiering for Virtual Pools (FAST VP) and FAST Cache. The FAST Suite, along with just a small number of Flash drives, enables customers to deploy a FLASH 1st strategy that optimizes the performance of highly active workloads, while providing the lowest TCO for the customer.

"We looked at Dell and NetApp, but they didn't offer the same flexibility and scalability that VNX provides," notes DiBenedetto. "We have CIFS and NFS file data, as well as Fibre Channel and Ethernet block data, which VNX supports out of the box. It would have been much more difficult to handle this mix of technologies with other solutions."

Sekisui relies 100 percent on VNX storage to support its enterprise applications, including Oracle for sales forecasting, Microsoft SQL Server for document management, Exchange email, and MFG Pro enterprise resource planning. Sekisui has virtualized 90 percent of the environment using VMware® vSphere™ virtualization, with approximately 100 virtual machines (VMs) running on VNX in a private cloud.

The company will also use EMC® Avamar® deduplication backup software and system. The Avamar solution, equipped with integrated global, client-side data deduplication technology, facilitates fast, daily full backups for VMware environments, remote offices, enterprise applications, LAN/NAS servers, and desktops/laptops. In addition, Sekisui will rely on RSA® Authentication Manager, also virtualized on VNX, for security.

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INTELLIGENT SIMPLICITY MAKES VNX EASY TO DEPLOY AND MANAGE

By leveraging the intelligent simplicity of VNX, along with the expertise of GreenPages Technology Solutions—a national IT consulting and integration company—Sekisui was able to accelerate its new data center build out.

"GreenPages looked at the data center as a whole and recommended the best technologies for a smooth deployment," says DiBenedetto. "EMC was very responsive with our technical requirements. Combine that with the VNX system's built-in automation and multi-protocol support, and we met our very aggressive objective of our new data center going live in just three months."

Now that VNX is fully implemented, ongoing management is also a breeze.

"We have minimal IT staff to handle day-to-day operations, so we wanted a system that would do that for us," DiBenedetto remarks. "With VNX, FAST Cache, and the FAST VP policy set to 'auto-tier' across one large storage pool, we're able to avoid all the management headaches. We don't need a dedicated storage administrator. We have one-half FTE who looks at the data from time to time. That's huge for us."

OUTSTANDING PERFORMANCE FOR APPLICATIONS AND DEVELOPMENT TEAMS

VNX provides Sekisui with consistent performance to support all aspects of business productivity—from research and development to manufacturing and distribution to sales, finance, and administration.

"We're very pleased with the VNX," DiBenedetto reports. "There have been no issues in the VMware environment, and our application teams tell us that performance is great."

In its development organization, where resources tend to be over-committed, Sekisui leverages FAST to enable fluid movement of LUNs between higher-performance Flash and higher-capacity SAS drives for top performance.

"Although we have a high density of virtual machines per LUN, the engineers still report good performance," says DiBenedetto.

AGILITY OF PRIVATE CLOUD SUPPORTS RAPID GROWTH

With six facilities across the U.S., Canada, and the U.K., the IT team is under constant pressure to keep up with Sekisui's growth. Thanks to FAST VP and tight integration with VMware, VNX provides the agility needed to stay ahead.

"Over the last three months, our infrastructure capacity has doubled while the number of requests from users and developers has increased by 50 percent," notes DiBenedetto. "Yet even as we grow, the timeline to fulfill IT requests has dropped from a week to one or two days; and we provision virtual machines in minutes. With VNX and VMware, we're far more agile and responsive to the business than we anticipated."

With its private cloud, Sekisui can also scale the VNX infrastructure without minimizing performance of IT services.

"VNX allows us to carve out additional capacity from the virtual pool while the systems are running," states DiBenedetto. "With VNX providing enterprise services to a global organization, maintaining system availability while growing the infrastructure provides critical value to our business."

COMPREHENSIVE DATA PROTECTION FOR THE CLOUD

Next up for Sekisui will be rolling out Avamar to provide a deduplication backup solution across the U.S. and Canada. The solution will include image-level backups for virtual machines and guest-level backups for applications in the data center and remote offices.

"In the proof-of-concept, Avamar produced a reduction in backup data volumes, and we expect that to improve over time," says DiBenedetto.

Also on the horizon, Sekisui plans to implement VMware vCenter™ Site Recovery Manager (SRM) for disaster recovery to provide even greater protection for its growing private cloud infrastructure.

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