SYSCOM, an IT service provider in New York, started Clavis cloud services in 2011, providing enterprise application and virtualized platform as services. To facilitate backup and archive for increasing data on the virtual platform service (VPS) and e-mail hosting solutions, SYSCOM chose NEC HYDRAstor inline deduplication storage. The HYDRAstor system is a backup storage platform for long-term data, which reduces storage capacity consumption by eliminating redundant data while maximizing backup performance. Using NEC HYDRAstor inline deduplication storage system, SYSCOM reduced storage capacity consumption by 56%.

SYSCOM is an IT service provider that has delivered IT system and infrastructure solutions for more than 20 years. SYSCOM started Clavis cloud services in 2011, delivering collaborative software, e-mail hosting, virtual private server (VPS), hosting services, and remote backup for disaster recovery and BCP as services. Leveraging their two data centers, located in New York and Los Angeles, SYSCOM provides highly available and reliable cloud services. However, Koichi Kuno, Manager of Cloud Service Department at SYSCOM, pointed out the issues in their backup system. “Data in our system is expanding every day, increasing the storage capacity consumption and backup window. For example, 20GB data is being created at VPS service and 1.4GB is being created at e-mail hosting every day. We needed to minimize the storage costs without hampering convenience, as well as having higher data reliability than tape backup.”

**Challenges**

SYSCOM is an IT service provider that has delivered IT system and infrastructure solutions for more than 20 years. SYSCOM started Clavis cloud services in 2011, delivering collaborative software, e-mail hosting, virtual private server (VPS), hosting services, and remote backup for disaster recovery and BCP as services. Leveraging their two data centers, located in New York and Los Angeles, SYSCOM provides highly available and reliable cloud services. However, Koichi Kuno, Manager of Cloud Service Department at SYSCOM, pointed out the issues in their backup system. “Data in our system is expanding every day, increasing the storage capacity consumption and backup window. For example, 20GB data is being created at VPS service and 1.4GB is being created at e-mail hosting every day. We needed to minimize the storage costs without hampering convenience, as well as having higher data reliability than tape backup.”

**Solution**

To integrate the backup system at SYSCOM's cloud services, NEC proposed HYDRAstor HS3-210 disk-based inline deduplication storage. HYDRAstor HS3-210 delivers enterprise-class capacity optimization within a 2U server chassis, reducing storage costs by eliminating redundant data across all incoming data streams with DataRedux™ inline deduplication technology. HYDRAstor storage system also provides Distributed Resilient Data™ (DRD) advanced erasure-coded data resiliency, delivering greater protection and faster rebuild than traditional RAID with less capacity or processing overhead. HYDRAstor HS3-210 can tolerate up to three concurrent disk drive failures while maintaining normal I/O. Leveraging disk-based storage system, the HYDRAstor system eliminates tape cartridge management and enables remote data backup over the network with RepliGrid™ WAN-optimized replication.
Solution (cont.)

Kuno stated the reason why they chose HYDRAstor storage system as their backup system. “We expected HYDRAstor’s data deduplication capability to reduce storage costs and backup window. Another benefit of the HYDRAstor storage platform is easy system management and monitoring, which maximizes usability of backup system management.”

They built the backup system using the HYDRAstor platform into VPS service and e-mail hosting. At VPS service, they back up 23 virtual machines using Veeam Backup & Replication software, storing more than 500GB weekly full backup data and 20GB daily incremental backup data onto the HYDRAstor system. The data retention period is 14 days. For e-mail hosting, they archive 1.4GB e-mail data from 500 users per day using an e-mail archive appliance, retaining data for 1–7 years depending on the customer.

Results

SYSCOM integrates backup systems for VPS service and e-mail hosting using HYDRAstor HS3-210, obtaining simple and efficient disk-based backup system with enterprise-class deduplication capability. NEC’s HYDRAstor grid storage eliminates 1.5TB from 2.7TB of original backup data with inline deduplication and compression, reducing 56% storage capacity consumption. Leveraging the inline processing of deduplication and compression, SYSCOM can eliminate redundant data without any special setting or scheduled time for deduplication and compression processing.

SYSCOM chose level-3 data resiliency which tolerates up to three concurrent disk drive failures while maintaining normal I/O. Leveraging HYDRAstor’s advanced erasure-coded data resiliency, SYSCOM ensures data protection for their customer’s VMs and e-mail data with fast data rebuild and efficient utilization.

“We are very satisfied with storage cost reduction by deduplication, as well as data reliability. We hope NEC will deliver more efficient and higher performance model of HYDRAstor”, Kuno said. Akashi talked of their future plans for disaster recovery using HYDRAstor RepliGrid. “We are planning data replication between New York and Los Angeles. Retaining same data in two locations, we can maximize data availability for disaster recovery.”

“Another benefit of HYDRAstor is easy management and monitoring, which maximizes usability of backup system management”
- Koichi Kuno, Manager of Cloud Service Department, SYSCOM

About SYSCOM

SYSCOM USA provides a range of innovative technology services in networking, computer systems, and VoIP equipment installation, along with round-the-clock maintenance and customer support, all across North America as well as between North America and Japan.

SYSCOM USA continues to change and expand their range of technology services in order to meet the diverse needs of their corporate users. Moving into enterprise business sectors, their Business Solutions Department offers ERP and internal control consulting to help improve and achieve operational efficiency.

With increasing market demands for cloud computing, SYSCOM USA has developed clavis, an elite team dedicated to provide cutting edge cloud computing solutions. Starting with public cloud to Virtual Private Servers, they offer a wide range of easily implemented services including Email and Web hosting, remote backup solutions, SaaS, and Data Center housing services. Their Data Center facilities are constructed with State-of-the-Art design specialized in security and business continuity.

SYSCOM USA offers a wide range of system integration solutions tailored to customers’ business needs. From server virtualization, network infrastructure implementation, to cloud computing, SYSCOM USA is the one-stop-shop for any businesses looking to utilize new technologies to catalyze its business development.

HYDRAstor: Scale-out Global Deduplication Storage for Backup and Archive

HYDRAstor storage system is NEC’s massively scalable distributed grid storage platform, built to modernize storage infrastructure to support long-term data retention. The HYDRAstor storage platform has been architected to maximize capacity optimization and modular scalability, without the complexity and inherent limitations of legacy storage solutions such as expensive inefficient primary storage, limited scale-up NAS, virtual or physical tape, or specialized single-purpose backup or archive appliances. Pioneered by NEC, a Global 500 company and worldwide technology leader, HYDRAstor grid storage provides user configurable, integrated data management services to streamline storage management.

Features and Benefits

- Lower storage capacity consumption by up to 95% or more with inline global data deduplication
- Reduce network bandwidth by up to 250:1 or greater, enabling cost-effective disaster recovery
- Shrink backup windows by aggregating data protection resources
- Minimize storage management costs by automating tasks and provisioning