

GMO Internet, Inc.

Case Study

Japanese hosting service increases performance and functionality but keeps prices low with Nexenta

Japan
www.gmo.jp
Internet hosting



Summary

Challenge: Increase performance, functionality, and international data center services for hosting service

Solution: NexentaStor

Platform: Dell, OpenStack

Use Case: Hosting

Benefits:

- Eliminates need for a specialized content delivery network (CDN)
- Allows users to easily increase their infrastructure at very low cost
- Saves 50-70 percent compared to other SDS solutions
- Delivers more features for the same monthly price

Business Overview

GMO Internet (GMO) began providing hosting and related services in 1995, and now focuses on Internet infrastructure, advertising, Internet trading, and mobile entertainment. GMO has 91.5 percent of the Japanese domain business, and hosts 55.6 percent of Japanese organizations through its hosting service, called ConoHa (Compute node with Hi-Flexible Architecture). GMO has to continually innovate its ConoHa Infrastructure-as-a-Service (IaaS) and delight customers to maintain its lead in the competitive Japanese hosting market.

Challenges

When GMO customers began requesting foreign data center services, more functionality, and increased performance, the company decided to refresh its public cloud service with new infrastructure—while continuing to offer competitive prices.

Traditional appliance storage couldn't deliver on all these requirements, so GMO began investigating high performance Software-Defined Storage (SDS), looking for a solution that could deliver multi-site and all-flash capabilities. The key requirement was for an advanced distributed storage system with high performance at a reasonable cost—which meant SSDs for servers and storage.

Most SDS solutions didn't perform well with SSDs, but in researching its options, GMO discovered NexentaStor Open Source-driven Software-Defined Storage by Nexenta Systems. A long-time OpenStack user, GMO chose NexentaStor because it is highly integrated with OpenStack compared to other SDS solutions.

"We knew the technology well and NexentaStor had the OpenStack Cinder driver already. We were confident that NexentaStor could meet our requirements," said Naoto Gohko, chief executive architect at GMO. "Dell and Nexenta had already supported reference architectures that deliver on enterprise requirements like ours."

Solution

To meet ConoHa's requirements for performance, stability, and advanced services with competitive pricing, GMO selected Dell PowerEdge R720xd, Nexenta all-flash storage and backup HDD storage, and OpenStack.

"There's good alignment between OpenStack advancement and how we want to improve our cloud services," said Gohko. "The OpenStack source code is easy to manage and understand, and the API is open and easy to use, making it the best cloud controller for us. As new releases come out, we can leverage them for the latest network and storage functionality to enhance our cloud platform."

NexentaStor is highly integrated with the OpenStack Cinder driver and maximizes hardware performance for storage services with SSDs. For example, one service based on ConoHa now enables video streaming on smartphones. Initially, GMO thought it would need a CDN deployment for the video streaming service, but once it deployed NexentaStor it discovered NexentaStor performance was enough on its own.

Among other things, the company leveraged the OpenStack API to build ConoHa's easy-to-use control panel. Mailing and database services in ConoHa are also based on the company's customized OpenStack implementation, and the company plans to expand its services offering by leveraging its OpenStack engineering skills.

Compared to other Software Defined Storage solutions, GMO saved around 50-70 percent by deploying a Dell-Nexenta solution.

Hirokazu Shimabara

Manager, Infrastructure Engineering at GMO

Benefits

GMO built its cost-effective, high performance storage system using SDS by working closely with Dell and Nexenta to make the project a success.

Flexibility

Users with unexpected increase in traffic or service loads can now easily increase their infrastructure at very low cost. Users who stream movies or large amounts of data can purchase additional SSD storage services for excellent performance.

Enhanced efficiency

The new infrastructure improves efficiency by more than 150 percent and demonstrates enhanced capacity utilization over the previous service infrastructure. Nexenta with All-Flash successfully decreases the cost for the entire system.

"Compared to other Software Defined Storage solutions, GMO saved around 50-70 percent by deploying a Dell-Nexenta solution," said Hirokazu Shimabara, manager, infrastructure engineering team at GMO.

Enterprise-grade performance and reliability

"Dell and Nexenta make this solution trusted and enterprise-grade, and we respect their professional attitude and sense of responsibility. We are very comfortable with their support and service level," said Shimabara.

Customer satisfaction

Users are pleased with the infrastructure renewal because they get more features for the same low price. For example, previously users had to manage redundancy or load balancing themselves. But now, GMO provides those functions as an easy-to-use part of the standard service. Plus, the new service has a fixed monthly rate for storage, so even students can afford to use this service to learn Linux technologies.

"Customers are happy, and subscriptions to the service are increasing as a result, helping us to maintain our position as the leading internet service provider in Japan," said Shimabara. "We plan to build on this success by working with Nexenta to increase OpenStack integration and expand our business, offering our customers advanced features and great services, including expanding our datacenters into other countries."



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