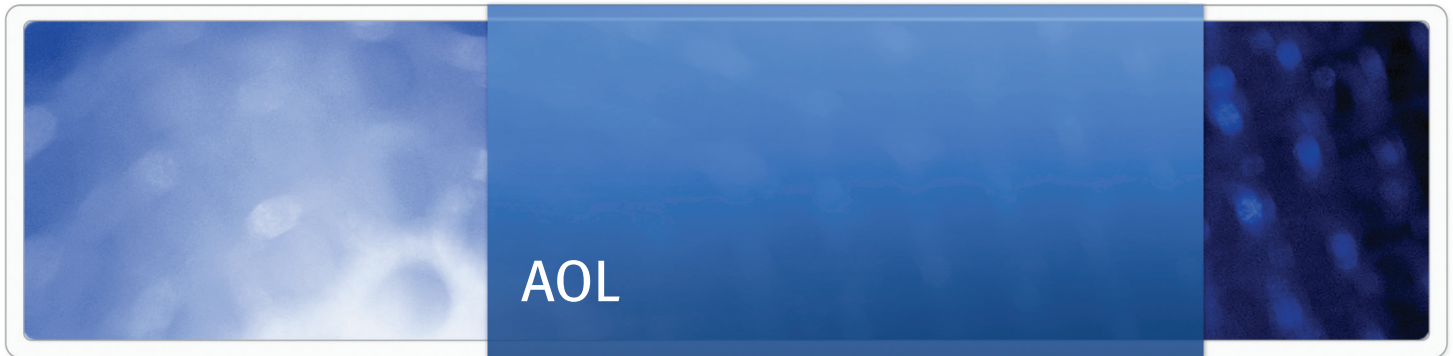


CUSTOMER PROFILE



AOL extends Virtual Storage to cloud computing with EMC VPLEX clusters

Challenges

- 48-month leases on new storage systems were expiring on a weekly basis
- Minimizing downtime of storage migrations consumed significant staff time

Solution

- EMC VPLEX Virtual Storage clusters

Key results

- Streamlined, automated migrations to next-generation storage without any downtime
- Storage requests completed in a day compared to one week previously
- Increased cluster resiliency delivers higher application availability
- Projected 18-month payback achieved in six months

AOL is one of the world's largest producers of digital content and a leading distributor of premium online advertising and messaging services to consumers, publishers, and advertisers. With premium content as a core offering, New York City-based AOL has enormous requirements for storing and managing data.

Since AOL has over four petabytes of heterogeneous storage located in different data centers worldwide, the company was endlessly planning for expiration of 48-month leases on storage systems. AOL needed to ensure it migrated to next-generation systems before these leases expired and costly post-lease fees would be charged.

Will Stevens, AOL's senior director, Data Storage Services, said, "Our dilemma was minimizing downtime caused by this continual change-over to new systems. We have hundreds of critical applications from AIM buddy lists to SAP financials and so on. Each application has its own peak windows when it simply can't be down. We had to schedule migrations around these windows—even if it meant waiting until after our leases expired. And because we were cutting over to new systems almost weekly, the migrations were becoming a huge burden for our staff."

Streamlined management of frequent storage migrations avoids downtime and saves fees

AOL has more than 10 EMC® VPLEX™ Virtual Storage clusters in data centers in the U.S. and Europe. Installed between the storage systems and the servers, the VPLEX clusters are presented as pools of Virtual Storage to the servers.

Each VPLEX cluster is configured with four continuously active nodes to manage several hundred terabytes of storage, such as EMC Symmetrix®, EMC CLARiiON®, and HDS storage, as well as thousands of servers. Overall, VPLEX oversees more than four petabytes of storage and thousands of servers.

Migrations without downtime

Since deploying VPLEX, AOL has dramatically streamlined storage migrations while simplifying storage management. In addition, availability of AOL's applications has increased.

To execute a migration, the new system is connected to the cluster and the old system is disconnected. The pool of storage is redistributed across the new and existing storage systems being managed by the cluster. AOL also uses VPLEX to control how fast the volumes are moved to ensure application performance is not affected.

Stevens explained, "Because there is no downtime with migrations, we don't need to devote huge amounts of time coordinating with application owners, database administrators and system administrators, and even our external customers. The actual migration itself is also much less complex for our storage administrators.

"We're no longer delaying migrations to avoid disrupting a peak load cycle. So we're returning our systems before the lease expires and not getting hit with high fees."



Simplified storage management

EMC VPLEX has provided AOL with a simplified, standardized way to centrally manage hundreds of terabytes of storage from different vendors. Since using VPLEX, the amount of storage managed per AOL storage administrator has increased dramatically.

“It’s easy to carve up new storage for application owner requests,” said Stevens. “When we introduce certain applications, we have provisioned huge chunks of storage—10 terabytes a week—just like that. Getting storage out to our users more quickly is helping us respond better to the needs of the business and speeding up AOL’s introduction of new services.”

According to Stevens, AOL IT is a self-reliant organization. “We like our technology to be self-service so we can manage it ourselves. VPLEX contributes to this goal because we can do so many more things online and non-disruptively. We certainly value EMC’s world-class service when we need it, but day to day, VPLEX has freed us to focus more on strategic IT development activities that are so core to our growth.”

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Will Stevens, Senior Director, Data Storage Services

Improved resiliency provides foundation for global cloud computing

Availability of AOL applications has improved due to the more resilient VPLEX architecture. Rather than connecting servers to a primary and failover node, the VPLEX architecture is based on connecting each server to each of the four nodes of a single cluster. If a node goes offline, the processing load is serviced by the remaining three nodes.

Stevens said, “We take disaster avoidance very seriously because the costs are so high if our systems aren’t available. Not only are there huge administrative costs and logistics involved with recovering hundreds of systems, but we risk losing customers forever if they can’t access our services.

“Traditionally, when storage virtualization systems fail over, 50 percent of resources are temporarily lost and performance may be hurt. All four nodes in a VPLEX cluster are fully active so we maintain 75 percent of resources if a single node goes down.”

AOL is also considering other VPLEX technologies. With EMC VPLEX Metro, for example, AOL would be able to move workloads and data via synchronous links across different clusters located up to 30 miles apart.

“Now that we’ve virtualized our infrastructure in a cloud computing environment, we’re looking to extend it across a broader geographical area with VPLEX,” said Stevens. “So, we’ll achieve even more flexibility, protection, and efficient utilization of our infrastructure resources.”



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