D2L learns a lesson: cloud services are at the head of the class

■ NetApp



NetApp Cloud Volumes ONTAP for AWS rules the school with better delivery of education data. Since its founding in 1999, D2L has been a leader in using technology to transform learning. Headquartered in Kitchener, Ontario, Canada, D2L offers learning services to K–12, higher education, and corporate customers around the world.

To keep pace with student expectations for engaging content that is available anytime, anywhere, on any device, and to stay ahead of the competition, D2L moved its cloud-based learning services to Amazon Web Services (AWS) and adopted NetApp® Cloud Volumes ONTAP® data management software. This more flexible platform enables D2L to develop and deliver inspired and engaging courses that meet students' needs.



Up to 60% space savings

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Mike Malonev Vice President of SaaS, Security, and IT at D2L

The challenge

When D2L started nearly two decades ago, public cloud services were not mature enough to support the company's scalability, performance, and reliability needs, so it built its own cloud platform.

"When a student who needs a more specialized learning environment sits down to log in to D2L for a course, we have to be ready and available for them. If we can't promise availability and quality, we won't see them again," said Mike Maloney, vice president of SaaS, Security, and IT.

As the company expanded its online learning platform to support millions of users and thousands of schools, academic institutions, and corporations around the world, it quickly found itself responsible for multiple petabytes of data. Before long, the time and expense of keeping up with data center needs pushed D2L's staff and infrastructure to a breaking point.

"There's a lot that goes into managing a colocation facility. When resources are tied up with providing a stable environment, time to develop new solutions that move the product needle forward is limited," Maloney said.

The solution

Taking the risk out of moving to the cloud

To evolve its learning platform, D2L knew it needed to leave the business of running a data center behind. This time, the cloud was equipped to meet the company's requirements. D2L chose to transition its platform to AWS for on-demand scalability along with NetApp Cloud Volumes ONTAP for streamlined management, improved storage efficiency, and increased data protection. "We've only got a certain amount of resources to allocate to innovation. It's a very demanding, very competitive environment for talent. Moving to AWS with Cloud Volumes ONTAP lets us focus on our core business while leveraging

the breadth of what AWS and its partner ecosystem can bring to the table to help us," explains Maloney.

But moving active course content, test scores, videos, and all the other data needed by students and institutions was a risk. "It is pretty risky work to move all this data and not lose it," said Maloney. "Cloud Volumes ONTAP for AWS was a perfect solution. We wouldn't trust any other vendor to help with this."

Cloud Volumes ONTAP helps D2L mitigate risk as it moves to AWS. Features built into Cloud Volumes ONTAP, such as NetApp Snapshot[™] copies, replication, and deduplication, provide enterprisegrade data protection and high availability. Those same features also help D2L save time and reduce costs. Using Snapshot copies for replication, the company can more quickly move data to the cloud. Deduplication reduces the number of files to move, resulting in 20% to 60% space savings for various workloads.

Delivering peace of mind

Cloud Volumes ONTAP for AWS also offers D2L much stronger backup, recovery, and disaster recovery capabilities than its previous on-premises solution—without the need to maintain a costly secondary site. Now, if a disaster occurs, D2L can maintain the high service levels that its customers expect. With Snapshot copies, it can quickly and easily roll back data to a particular point in time.

"Our company values the educational experience for all. We are custodians for both our customers and the data, and we take that responsibility seriously. NetApp enables us to meet that obligation to our customers," said Stan Przychodzki, senior manager of D2L Cloud Architecture.

The road to the cloud leads to innovation

As it continues to move services to AWS, the company already sees enormous benefits, including the flexibility to redeploy resources to high-value projects that enable D2L to transform learning.

The centralized data management and operational efficiencies of Cloud Volumes ONTAP make it cost-effective for the company to convert to an all-cloud platform for high volumes of data.

"We can now scale our business tenfold from where we are today while maintaining a relatively flat headcount. Instead of managing hardware, we can use our resources to innovate for a better customer experience," said Maloney.

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Cloud Volumes ONTAP

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In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. To learn more, visit www.netapp.com

