



DTG HELPS A University Library Design Their Roadmap for Growth



Client

Large University in NY

Challenge

To more efficiently use the storage of the campus library system; expand their existing environment or migrate to new technology?

Technology Solution

EMC VNX 5300 with Unisphere storage management software and EMC's file deduplicating and virtual provisioning capabilities

Smooth Migration Sets the Stage for Flexibility and Cost Savings

At a large university in New York, the campus library system contains more than 3 million books in print and electronic formats, over 40,000 active journal titles as well as microforms, videos and other types of media. The demands on the library's storage infrastructure are normally very high, but they constantly change from one semester to another.

Responding to changing demands is a significant challenge for the university's computer network services department. For several years the university's research laboratory, which is part of the library's network, relied on an EMC CLARiiON CX4 array with 24 TB of allocated storage. While the system was adequate for the university's typical workload, a new grant or a new library initiative could easily double storage requirements overnight.

Although the existing CLARiiON storage environment was performing well, increasing costs for operations and maintenance were beginning to strain the library's budget. Adding to the severity of the problem, the system was not well optimized for the library's projected data growth needs.

To help set a path for future growth and lower their operational and maintenance costs, the university invited consultants from DTG to help determine if expanding the existing environment or migrating to a new technology would be the best solution for the university.

Setting the Scope of the Challenge

DTG's consulting team worked closely with the university's team to evaluate their existing configuration, the types of applications in use and the demands on each application. DTG also collected data from the old system to see which array groups were most heavily used.



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*Department Head of
Computer Network
Services*

According to Kurt Rudolph, DTG’s Senior Systems Engineer, “Our goal was to develop a roadmap for an architecture that would allow them to be able to use their storage more efficiently. A more flexible architecture would also let them grow their existing applications on the fly as needed, and in a way that would maintain performance and not impact operations.”

“I’ve been in the IT business for nearly 40 years,” said the head of the university’s computer network services, “and I’ve worked with many vendors and consultants. During that time, there have been only a few that have stood out and DTG is one of them. I’m very impressed by the time they spent listening to us, and their willingness and openness to work with us in whatever we wanted to do is critical to our success.”

After a comprehensive evaluation of the library’s needs, the teams concluded that migrating to new technology would not only reduce operational and maintenance costs, but would provide more efficient use of their storage capacity. The recommended solution was an EMC VNX 5300 with Unisphere storage management software, EMC file deduplication and virtual provisioning.

Listening and Planning Are Keys to Successful Migration

After choosing a window for the move, the team set aside 12 hours to perform the migration. But instead of taking 12 hours, the largest portion of the migration took only 4 hours. “One of the things that we were able to do,” said Rudolph, “was put in a lot of time working together planning the migration strategy, the processes and the timeframes. We put in extra hours in advance to make sure there would be as few roadblocks in the process as possible, and built in flexibility on scheduling so we could do the migration as efficiently as possible using the best technology for the job.”

The migration to the VNX 5300 was a success in part because the team used different migration techniques depending on the host environment. Part of the migration took advantage of EMC’s SAN Copy technology to move data—a very efficient and easy-to-use process that doesn’t impact the environment significantly. In addition, the migration team used tools within VMware as well as a simple restore from backup.

“Because we were able to plan the entire process and do our homework beforehand,” said Rudolph, “it meant that we were a lot more efficient when it came to that phase of the project. We were able to roll it out and do the migration without any unexpected consequences.”

According to the head of the university’s computer network services, “It was an amazing process. Compared to the last time we went through a migration, this was smooth and organized because DTG listened very well. They were sensitive to our needs and willing to work with us instead of dictate to us. That approach was a major factor in our success.”

Now, DTG is helping the university capture a baseline of performance for the VNX 5300 that they will use for a comparison to the old system and serve as a benchmark for any new initiatives or changes in technology. For this large university, and for DTG, it’s a partnership for success.