

## ABOUT THE CUSTOMER

Colby-Sawyer College is a private, comprehensive baccalaureate college situated on a 200-acre campus in New London, New Hampshire.



Colby·Sawyer  
College

## CHALLENGES

After Colby-Sawyer College switched to a hybrid array that combined flash and spinning disks, it lost the replication capabilities from previous systems. It also had a virtual desktop infrastructure (VDI) environment that relied solely on one array with no redundancy. As a result, the college experienced excessive storage downtime.

## SOLUTION

The IT team deployed DataCore SANsymphony™ storage software in a synchronously mirrored, metro-clustered configuration.

## RESULTS

The college now has always available storage plus increased performance from the caching capabilities from the DataCore solution, plus less wear and tear on the physical arrays. There is now unified management of the storage infrastructure with a single console. Thin-provisioning of capacity delivers better capacity optimization and centralized automation ensures better allocation of storage resources. In addition, there are cost savings from extending the life of storage investments as well as skipping expensive refresh cycles completely. The open solution also lets the college avoid costly hardware lock-in.

*The IT team at Colby-Sawyer College is a strong proponent of software-defined storage (SDS), giving DataCore a "5" or "Excellent" rating (on a scale of 1-5) in response to the question "How well has DataCore delivered software-defined storage to your organization?"*

# The IT Challenge:

## Ensuring High Availability at Colby-Sawyer College

Prior to DataCore, Colby-Sawyer College had fully replicated its data storage across two server rooms with its old storage platform. However, when the college switched to a hybrid array that combined flash and spinning disks, it lost the replication capabilities from previous systems. Moreover, before DataCore was implemented, the college had a virtual desktop infrastructure (VDI) environment that relied solely on one array with no redundancy. As a result, the college experienced excessive storage downtime.

According to Assistant Director of Information Technology **David Blaisdell**, *"In order to regain the level of redundancy we had before moving to the hybrid flash/disk array and add needed redundancy for high-availability to our VDI deployment, we had to find a solution. DataCore met all our requirements and added many other features. Now, even with one server room offline, our storage is always available."*

## MEETING MISSION-CRITICAL DATA CHALLENGES WITH UNIFIED STORAGE SERVICES

To ensure high availability and reduce downtime, Colby-Sawyer College deployed DataCore SANsymphony™ storage software in a synchronously mirrored, metro-clustered configuration by:

- Eliminating planned downtime for hardware upgrades, expansion, repairs or data migrations
- Avoiding unplanned downtime due to equipment failures and facility outages
- Preventing single points of failure and disruption while mitigating the impact of regional disasters and local threats

**Blaisdell** noted, *"DataCore provides all of the high-end storage area network (SAN) features we could desire. Bottom line? Centralized, automated data storage management through a unified, DataCore SANsymphony storage services platform delivers enormous value to those tasked with making sure all IT systems run nonstop at Colby-Sawyer College."*

**“We have realized better data protection by moving our critical data storage to DataCore, providing high availability for servers and VDI desktops. This plays strongly into our business continuity and disaster avoidance strategy.”**

– David Blaisdell, Assistant Director of IT at Colby-Sawyer College

## TURBO-CHARGING PERFORMANCE WHILE INCREASING CAPACITY AND PRODUCTIVITY

Colby-Sawyer College is no different from most DataCore customers, who typically report up to a 10x increase in performance. The college IT staff says it gets increased performance as a result of the inherent caching benefits of the DataCore solution. In addition, because of the performance multiplier brought on by caching, its physical arrays do not see nearly the activity as before.

Colby-Sawyer College is using DataCore's auto-tiering feature in combination with NexGen QoS policies, which enables the college to realize even better performance. In the future, the college anticipates that with auto-tiering it will be able to reduce its need for premium-priced equipment.

As far as overall storage management productivity, DataCore has proven itself to the IT staff at Colby-Sawyer College by enabling them to manage their storage assets from a single interface. Thin-provisioning of capacity delivers better capacity optimization and centralized automation ensures better allocation of storage resources. In addition, IT managers at the school consider DataCore's monitoring capabilities "impressive" – enabling them to view just about any metric imaginable.

*"In the future when we retire an existing storage array we look forward to being able to do that with no impact to our running systems," commented Blaisdell. "The same can be said for introducing new storage arrays into our environment. We can simply present raw disks to existing DataCore groups."*

## REDUCING STORAGE COSTS AND EXPANDING PURCHASING OPTIONS

As an organization that seeks to maximize the value of every purchase, Colby-Sawyer College has been able to delay and even avoid outright certain storage costs with DataCore. No longer does it have to throw away software as part of refresh cycles. Now, the college can extend the life of storage investments as well as skip expensive refresh cycles completely. Moreover, it is able to avoid costly hardware lock-in and entertain more attractive alternatives from competing storage hardware suppliers.

According to **Blaisdell**, *"We have standardized on and are very happy with the price/performance of NexGen and their ioControl Hybrid arrays. DataCore gives us the luxury of adding any other storage we may adopt in our environment without having to worry about the SAN's features. We can also foresee DataCore extending the lifespan of our storage arrays."*

## ONE CONSOLE FOR EASIER STORAGE INFRASTRUCTURE MANAGEMENT

DataCore unifies management across all of the institution's storage resources, making it possible for system administrators to gain visibility to the overall health and behavior of the storage infrastructure – all from a central console. Moreover, the DataCore deployment at Colby-Sawyer College ensures availability of data by keeping that data in two places. In short, business continuity is made possible via data redundancy.

## VIRTUALIZED IT ENVIRONMENT DESCRIPTION:

- **Number of Users:**  
1,800
- **Number of Virtual Servers:**  
6 Hosts, 100 virtual servers
- **Number of Virtual Desktops:**  
300+
- **Main Server Vendor:**  
HP
- **Storage Vendor:**  
NexGen
- **Server Virtualization Platform:**  
VMware
- **Desktop Virtualization Platform:**  
VMware View + UniDesk
- **Software-Defined Storage Platform:**  
DataCore SANsymphony

## SYSTEMS RUNNING VIRTUALIZED ON DATACORE:

- Exchange 2010 (4 servers)
- Digital Signage Server (Xibo)
- SolarWinds Orion
- Microsoft Lync 2010
- Evisions Argos (Reporting/Dashboard Suite)
- Ellucian PowerCampus (SSIS System Web+SQL DB)
- Microsoft Dynamics 2013
- SQL 2012 Always On Availability Group
- VMware View + Unidesk Environment

## ALWAYS-ON STORAGE: "NO TOUCH" NONDISRUPTIVE DATA PROTECTION AGAINST STORAGE FAILURES

Some companies talk about disaster recovery. DataCore customers speak about disaster avoidance. **Blaisdell** emphasized that DataCore makes "always-on" infrastructure possible and that he has seen it firsthand. *"With DataCore we have been able to mirror all data disks between our two NexGen arrays located in the two server rooms,"* he commented. *"We can now take one room offline for maintenance and still serve up all storage, so that databases and applications are unaffected and the users' experience is unaffected."*

The IT objective of reducing storage downtime is common among DataCore customers and is one of several key business drivers in deploying DataCore's comprehensive, scalable, software-based storage services platform, SANsymphony. In fact, most users of DataCore solutions report up to a 100% reduction in storage-related downtime by using DataCore's SANsymphony software platform.

### ABOUT DATACORE SOFTWARE

DataCore is a leading provider of software-defined storage and hyperconverged infrastructure solutions powered by Adaptive Parallel I/O technology, delivering higher performance, greater application workload productivity and cost savings. DataCore leverages the multi-core advances and cost efficiency of off-the-shelf x86 server platforms to overcome the IT industry's biggest problem, the I/O bottleneck. With DataCore, customers enjoy faster application response times and lower costs by making full use of their available computing resources to multiply productivity. The SANsymphony™ software-defined storage product pools diverse storage despite differences and incompatibilities among manufacturers, models, and generations of equipment. The software can span multiple locations and devices to bring them under the control of a common set of enterprise-wide data services for management automation and infrastructure simplification. DataCore Hyper-converged Virtual SAN software provides similar services using the internal or direct-attached storage spread across physical or virtual servers in a cluster.

The company has been privately held since its founding in 1998, and today has more than 10,000 customer sites across the globe. DataCore solutions are also available within turnkey appliances from hardware manufacturers including Lenovo.

## ABOUT COLBY-SAWYER COLLEGE:

Founded in 1837, Colby-Sawyer is a dynamic and innovative liberal arts and sciences college located in the scenic Lake Sunapee Region of central New Hampshire.

During their college careers, 100 percent of its students participate in one or more internships in their fields of study. They also create Learning Portfolios, in which they demonstrate their ongoing progress and achievement. All of its students conclude their senior year with a Capstone project, in which they develop and demonstrate a deeper body of knowledge in their academic major.



For additional information, please visit [datacore.com](http://datacore.com) or email [info@datacore.com](mailto:info@datacore.com)

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