JetStor®

Storage. Solutions. Support.

University Gives JetStor® Solutions Good Grades for Performance & Economy

✝ MOUNT MERCY UNIVERSITY

Powering & Backing Up a University Campus with Fast, Affordable JetStor Storage

The Data Center

JetStor XCubeFAS XF2026D All-Flash Array

10Gb/s links

HP Aruba 2930M switch

10Gb/s links

HP StoreOnce appliance

One Gb/s WAN link

The Disaster Recovery Site

JetStor 812iXD Array

THE ORGANIZATION

Mount Mercy University, located in beautiful Cedar Rapids, Iowa, was founded in 1928 with the goal of providing high-quality, values-based education. As a Catholic institution, it has evolved over the years, becoming a four-year school in 1960 and coeducational in 1969. It has always kept its focus on earth, immigration, nonviolence, racism, and women, and preparing its students to work toward a more just, equal, and peaceful world. Today, the university has over 1,700 students and 237 full- and part-time faculty.
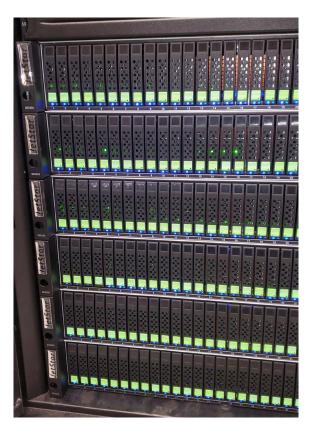
THE CHALLENGE

As a dynamic, mission-focused university, Mount Mercy must deliver a wide variety of applications to support its many course offerings. These include word processing, graphics, database, and spreadsheet systems, which faculty and students use to generate data every day. Additionally, administrators rely on managerial applications and a student information system for tracking the student body, all of which produced more data. Much of the data created on campus needs to be saved to support student work, research, and organizational and executive functions.

To meet its storage needs, Mount Mercy had relied on four Dell EqualLogic PS hybrid storage systems at its on-campus data center, but they had aged over the years and were no longer as effective as they once were. The school needed a more contemporary replacement, but as a small university, its IT budget limited what it could spend on new systems.

Moreover, Mount Mercy maintains a disaster-recovery site an hour away in Cedar Falls, Iowa. There, the university relied on three Dell PS6210 arrays to store data replicated from the legacy storage systems. These solutions, which had been introduced years earlier, were also showing their age.

"We wanted to archive data for at least seven years, but the Dell PS6210 devices lacked the necessary capacity," said Curtis Sanders, Interim Director of Information Technology/Technology Operations for Mount Mercy University. "As with our primary storage platforms in our data center, our budget was limited. We required systems that had the performance and scalability to keep pace with our data needs, but they also had to be economical to buy and own."

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CUSTOMER TESTIMONIAL

JetStor XCubeFAS XF2026D All-Flash Arrays

THE SOLUTION

• **JetStor XCubeFAS XF2026D All-Flash Array** from AC&NC
• **JetStor 812iXD Array** from AC&NC

SYSTEM CONFIGURATION

• One **JetStor XCubeFAS XF2026D All-Flash Array** with 26 7.6TB solid-state drives
• One **JetStor 812iXD Array** with 12 12TB SAS drives
• One HP Aruba 2930M switch
• One HP StoreOnce appliance

BENEFITS IMMEDIATELY REALIZED

Mount Mercy's IT staff learned of **JetStor solutions** from AC&NC and after conducting some due diligence, realized they had found a storage platform that met the university's needs. The school could replace its four Dell EqualLogic PS storage systems with a single **JetStor XCubeFAS XF2026D All-Flash Array** to support its production environment of applications and virtual machines.

"Of course, we would have preferred the performance boost of an all-flash platform," said Sanders. "No one has ever asked me for less performance. But we assumed that an all solid-state storage array was beyond our budget. Thanks to AC&NC, that was no longer the case."

By replacing four devices with a single solution, the university also simplified management. "The **JetStor XF2026D platform** has been very reliable," added Sanders. "It has its own web-based management system. We simply log in and do what we need to do. We're promptly alerted if there are ever any issues."

The **JetStor XF2026D platform** also reduces ownership costs. The single device consumes less power to operate than the four systems it replaced. The cost-savings were compounded by the fact that the **JetStor platform** uses energy-efficient all flash drives, whereas the legacy devices were hybrid systems that still relied on spinning disks.

Sanders and his colleagues very much liked their **JetStor platform** and turned to AC&NC to determine if it had a replacement solution for its disaster-recovery site. For its back-up system, the university's priority was more on capacity than on processing power.

"AC&NC proposed the **JetStor 812iXD Array**," said Sanders. "The system provided more capacity than our three legacy DR systems combined, and like the **JetStor XF2026D chassis**, it definitely fit within our budget. By replacing three devices, the **JetStor 812iXD Array** simplified management and lowered ownership costs. Both **JetStor platforms** will meet the university's needs for performance, functionality, reliability, and scalability for years to come."

CUSTOMER TESTIMONIAL

**AC&NC JetStor XCubeFAS XF2026D
All-Flash Array**

AC&NC JetStor 812iXD Array

HOW WE DID IT

Deployment of the **JetStor platforms** was straightforward. The **JetStor XF2026D Array** was provisioned with 26 7.6TB solid-state drives for 197.6 of raw capacity. It was linked via multiple 10Gb/s connections to an HP Aruba 2930M switch in the data center. The switch connects to an HP StoreOnce appliance via 10Gb/s links, which in turns connects to the **JetStor 812iXD Array** with a one Gb/s wide-area-network link. The **JetStor 812iXD device** has 12 12TB SAS drives, as well as dual controllers to ensure availability.

Veeam software forwards data to be backed up from the **JetStor XF2026D platform** to the HP StoreOnce appliance, first deduplicating, compressing, and encrypting the information. The software then continuously replicates the data to the **JetStor 812 array** for long-term storage.

Both **JetStor platforms** are configured for RAID 6, which ensures no data loss even if two drives fail. "The **JetStor 812 device** was preconfigured for RAID 6," said Sanders. "I was happy about that. I didn't have to do anything at all."

CONCLUSION

"AC&NC makes robust, high-performance, all-flash arrays affordable even for a small school likes ours," concluded Sanders. "It also had a perfect DR solutions for us as well. AC&NC has a **JetStor product** for each use case and budget. Even better, AC&NC has been very responsive in meeting our every requirement."

ABOUT ADVANCED COMPUTER & NETWORK CORPORATION (AC&NC)

AC&NC™ / JetStor meets the evolving needs for data storage, protection, and management. We leverage leading technologies to offer high-value solutions for NAS, SANs, clouds, and hyper-converged infrastructures (HCIs). Since 1994, our customers have spanned virtually every industry, and range from Fortune 500 enterprises to small and medium-sized firms. We support environments from data centers and clouds to branch offices and remote sites.

USA HEADQUARTERS
Advanced Computer & Network Corporation
5001 Baum Blvd., Suite 680
Pittsburgh, PA 15213
tel: 412.683.9010
toll-free: 800.213.2667
fax: 412.683.9070

www.jetstor.com
info@acnc.com

SALES
toll-free: 800.213.2667
tel: 412.683.9010
fax: 412.683.9070
sales@acnc.com

OEM/VAR SALES
toll-free : 800.213.2667, ext. 122
partners@acnc.com

GOVERNMENT SALES
toll-free: 800.213.2667, ext. 125
gov@acnc.com
GSA Schedule GS-35F-0694J

EUROPE
Vector & Scalar Products Limited
tel: +44 (0)1628 891616
fax: +44 (0)1628 472137
sales@vspl.co.uk
www.vspl.co.uk