





Achieving academic excellence with modern IT

Mizzou future-proofs education with Dell PowerStore, PowerMax and PowerFlex.

Business needs

The University of Missouri faced increasing pressure to improve IT performance and efficiency while serving as a responsible steward of public funds. Legacy systems caused performance bottlenecks, frequent troubleshooting and wasted resources. With 24/7 campus operations and heavy reliance on digital platforms for learning, research and healthcare, the university needed an infrastructure that could deliver consistent uptime and simplify management.

Business results

-  Achieved sub-millisecond latency and zero complaints, enabling IT to innovate confidently.
-  Improved application performance for 30K+ students, faculty and staff across critical systems.
-  Reduced data center footprint by up to 50%, lowering energy costs and freeing valuable space.
-  Simplified procurement and lifecycle management with Dell AIOps insights, saving time across assets.

Solutions at a glance

- [Dell PowerStore](#)
- [Dell PowerMax](#)
- [Dell PowerFlex](#)
- [Dell PowerEdge R-Series Servers](#)



PowerStore's speed and reliability mean we spend less time fixing and more time innovating.

Meeting the IT demands of a modern university

The University of Missouri, better known as Mizzou, is the state's largest public research university and the flagship of its four-campus system. As a land-grant and R1 research institution, it leads advancements in fields from agriculture to medicine while serving more than 30,000 students and supporting world-class academics, athletics and healthcare.

IT is the backbone of campus life, learning, research and operations. "IT should be like electricity—nobody cares about it until it's gone," says Tracy McCubbin, senior manager of IT. Before partnering with Dell Technologies, outages and performance issues were frequent. "We spent too many nights troubleshooting instead of building new services for students," McCubbin recalls.

To overcome these challenges, Mizzou worked with Dell Technologies to replace aging systems with a resilient, future-ready infrastructure. This transformation, driven by a need for speed, simplicity and scalability, allowed the IT team to focus on strategic priorities rather than daily firefighting.

Simplicity, speed and scale

To modernize its IT foundation, Mizzou standardized on a suite of Dell solutions, including PowerStore, PowerMax, PowerFlex and PowerEdge servers, all supported by Dell AIOps for lifecycle visibility. Through a single portal to monitor hardware, performance and support contracts, AIOps enables the IT team to stay ahead of upgrades, warranties and potential downtime risks. Together, these technologies have eliminated performance bottlenecks and empowered the team to grow without added complexity.

When it comes to campus safety and communication, reliability is non-negotiable. Mizzou's VoIP system—including 911 services for the campus and hospital, runs on PowerStore. "That's not something you can afford to have go down," McCubbin emphasizes. "The storage has to be fast and reliable. With sub-millisecond latency and zero complaints, PowerStore delivers." He adds, "Getting a PowerStore up and running is something you can do over lunch." For emergency calls, speed and dependable performance make all the difference.

Across campus, hundreds of applications—from housing and grading systems to authentication services—depend on PowerMax. Its all-flash performance and SRDF replication ensure critical workloads remain protected and available across sites. "We don't even know what an outage is anymore, upgrades happen in the middle of the day, and no one notices," McCubbin says.

For the university's PeopleSoft ERP system, which manages HR, finance and student data, PowerFlex provides a dedicated environment built for speed and flexibility. This is essential for smooth migrations and system updates. "The hardware's fast enough, just let the hardware do what the hardware does," McCubbin notes.

Bringing it all together across multiple data centers on the compute side, Mizzou has deployed a range of PowerEdge servers including models with AMD EPYC processors to support their VMware environments. These systems host hundreds of virtual machines that power campus operations. The IT team also uses OpenManage Enterprise to manage updates and deploy new devices. "These tools save us time and give us consistency across the board," McCubbin says. As McCubbin sums it up: "Going all-flash means performance issues just don't exist anymore. You couldn't get me to go back."

Making every dollar count

As a publicly funded institution, Mizzou is committed to using taxpayer dollars wisely. Transitioning to an all-flash environment not only enhanced performance but also generated significant cost savings. By consolidating workloads and leveraging Dell's advanced data reduction technologies, the university reduced its data center footprint by up to 50%, freeing up expensive floor space

“Dell AIOps gives us a single portal to track hardware, performance and support contracts. That visibility is a lifesaver.”

Tracy McCubbin
Senior Manager of IT, The University of Missouri



Dell isn't just a vendor, they're a partner helping us build the future of education and research.



Tracy McCubbin
Senior Manager of IT, The University of Missouri



and cutting energy costs. “We pay by the tile—so that matters,” McCubbin says.

The move also improved resiliency. With fewer systems to manage and built-in automation the IT team can focus on strategic projects rather than routine maintenance.

Buying and maintaining gear is simpler, too. With a 15-year direct relationship with Dell, the IT team avoids lengthy RFP processes and gets what they need quickly. “We’ve had a direct path to Dell for 15 years. I don’t see that changing,” he adds.

Prioritizing community and continuity

Mizzou’s IT infrastructure extends beyond classrooms, it powers Columbia’s broader community. From online learning to hospital operations, Dell Technologies keep essential services available around the clock. “Every student and faculty member interacts with our infrastructure and the community feels it too,” McCubbin notes. When systems stay up, students can submit assignments at midnight, professors can post grades on time and hospital staff can access critical systems without interruption.

To maintain this reliability, the team uses multiple layers of protection, including disaster recovery tools and Dell’s cyber vault technology to secure sensitive data for both academics and healthcare. That way, even if there’s a cyberattack or outage, critical systems remain operational—reinforcing Mizzou’s role as a trusted

leader in education, research and public service across Missouri.

Future vision: innovating with purpose

With core systems stable and secure, McCubbin’s team can focus on what’s next, building smarter services for students and faculty. The university is exploring AI and machine learning to improve campus services and support data-driven decisions. “We’re not chasing trends. If a new technology helps students succeed or makes life easier for faculty, that’s when it matters,” McCubbin explains.

“Our mission is simple: everything we do is for the students. We’re building the tools they’ll need to lead and innovate long after they leave here.” he adds.



PowerEdge servers are the backbone of our virtual environment—stable, fast and easy to manage.



Tracy McCubbin
Senior Manager of IT, The University of Missouri

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