Ensuring an extraordinary online educational experience

Columbia Southern University counts on Dell Technologies to reliably meet the needs of its students, faculty and staff 24x7x365.

Business needs

With increasing competition from online-only universities and traditional educational institutions offering a growing range of hybrid digital and in-classroom learning, Columbia Southern University needed to ensure that its 27,000 students would enjoy the best, most responsive and reliable learning experience.

Business results

- Latency reduced to 1–2 milliseconds for enhanced responsiveness.
- 80% performance gain over previous platform for better student experiences.
- 70% improvement in data reduction to keep costs down.
- Can double capacity to 100TB to grow without buying a new appliance.
- Delivers better agility, reliability and simplicity for a competitive edge.

Solutions at a glance

- Dell PowerStore
- Dell CloudIQ
- Dell PowerEdge
- Dell ProSupport
- VMware vSphere

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Andrew Schellhase
Senior Systems Administrator for IT Operations, Columbia Southern University
For more than 25 years, Columbia Southern University (CSU) — an online university based in Orange Beach, Alabama — has enabled adult learners to achieve their academic goals.

More than 27,000 students are enrolled in a variety of online degree programs — associate, bachelor’s, master’s, doctorate and various certificates — ranging from business and health sciences to fire administration. CSU is also one of the top 10 education providers for active-duty military members and veterans. With students, faculty and staff relying on the university’s IT infrastructure 24x7x365, it turned to Dell Technologies.

“The relationship we have is amazing,” says Andrew Schellhase, senior systems administrator for IT operations at Columbia Southern University. “The market today is extremely competitive for online universities. Dell Technologies helps us ensure that our students have the best possible experience.”

CSU counts on a PowerStore VMware SAN and Microsoft SQL Server for both block and file storage, with a total of 36 instances of SQL Server databases.

“With PowerStore, we’ve seen a huge 80% increase in performance,” Schellhase remarks. “End-to-end NVMe over the regular SSDs has made everything much faster. And latency has dropped to 1–2 milliseconds, which is incredible.”

Keeping costs down

CSU receives an exceptional return on investment with the help of a data reduction rate of 4.4:1, a 70% improvement over its previous platform. In addition, deduplication and compression are “always on,” making things simple for CSU’s IT team — without compromising performance.

Powering student information

At the heart of CSU’s offerings is its homegrown student information system. Running on a Dell PowerStore array, the innovative platform manages vital student data and supports an array of critical services. These include student registration, grades, transcripts, test scores and more. PowerStore also hosts the university’s financial aid system.
“We can actually have development, test and production running on the same storage area network,” explains Schellhase. “There’s no increase in space requirements, thanks to PowerStore’s deduplication capabilities. It’s a game-changer.”

He continues, “At the same time, we can easily double our storage capacity whenever we need to, thanks to PowerStore’s built-in scalability and intelligent, self-configuring services.”

Receiving big benefits

Aside from Dell PowerStore, CSU taps a full line of Dell Technologies solutions including Dell CloudIQ to monitor the IT infrastructure and cybersecurity, Dell PowerEdge servers, Dell desktops and laptops, Dell Technologies ProSupport, and a 100% VMware virtualized environment.

“CloudIQ is a significant competitive advantage,” Schellhase comments. “No one else provides all of the benefits in a ‘single pane of glass.’”

“PowerStore makes CSU more agile and competitive because we can do more with less,” he concludes. “We’ll be able to add applications and services without having to purchase another appliance.”

“We can easily double our PowerStore storage capacity from 50–100 terabytes whenever we need to, due to the built-in scalability.”

Andrew Schellhase
Senior Systems Administrator for IT Operations, Columbia Southern University