



### Business challenge

To support admissions, Santa Fe College must ensure its online student registration system is always available. How could it maintain flawless uptime during peak periods without breaking the bank?

### Transformation

At key points in the year, Santa Fe College's registration systems face massive demand—and any unplanned downtime increases the risk of losing students to other colleges. By deploying a cost-effective SAN environment based on IBM® Storwize® V7000 with IBM HyperSwap®, Santa Fe College can deliver 24x7 availability for its registration systems.

### Business benefits

**24x7**

availability keeps registration systems online during critical peak periods

**50%**

reduction in personnel requirements for storage management

**50%**

reduction in storage requirements cuts operational costs

# Santa Fe College

## Seamlessly processing student registrations with a high-availability, cost-efficient storage platform

Established in 1966 in Gainesville, Florida, [Santa Fe College](#) is a state college offering associate and bachelor's degrees, as well as programs for career and technical certification, continuing education, and community education enrichment. Ranked first in graduation rate among public colleges in Florida, Santa Fe College serves more than 22,300 full- and part-time students.

*“Thanks to our IBM solutions, we can ensure that every student has access to the tools they need to join the college and succeed in their studies.”*

—Matt Thompson, Systems Administrator, Information Technology Services, Santa Fe College



Share this



## Delivering exceptional student experiences

For further education providers across the US, competition for students is more intense than ever. To attract talented applicants year after year, the pressure is on for organizations to deliver exceptional student experiences—especially at the all-important registration stage of their journey.

This was the challenge facing Santa Fe College, one of Florida's leading state education institutions. Matt Thompson, Systems Administrator, Information Technology Services at Santa Fe College, explains: "One of our fastest-growing offerings is distance learning, which is driven by an increase in the number of people who want to gain a degree or qualification to advance their career, but don't have time to come to campus.

"We use a custom-developed ERP system to enable prospective students to enroll and register for classes online. At peak periods in the year—especially during the fall—thousands of students need to access our online portal to sign up for classes. If for any reason our portal goes offline, there's a real risk that prospective students will decide to enroll at another college instead.

"We operate one production and one disaster recovery data center, located in separate locations on campus. In the past, it was impossible to guarantee that the SAN for our mission-critical ERP platform would automatically fail over to the disaster recovery environment in the event of an outage. Because we had to complete the process manually, it would take us at least one hour to switch to our disaster recovery environment—and potentially several

hours if we needed to respond to an outage outside of the normal working day.

"We knew that any downtime during the peak registration period increased the chance of losing prospective students, and we looked for a way to deliver high availability for our student-facing services."

## Ensuring dependable availability for critical services

To solve the challenge, Santa Fe College reached out to its longstanding IBM Premier Business Partner, e-TechServices, to help design a solution to meet its demanding requirements. Santa Fe College decided to deploy a new SAN based on IBM Storwize V7000 technology,

configured for high availability using IBM HyperSwap, and with regular backups managed by IBM Spectrum Protect™. Today, the college runs one Storwize V7000 at each of its data centers in an active/active configuration, ensuring dependable availability for critical workloads.

"Our goal in the IT department at Santa Fe College is to enable the best student experience in the most cost-efficient way, and it was crucial that our new storage platform met that requirement," recalls Thompson. "We evaluated a number of vendors against a set of key criteria, including the number of separate devices we would need to purchase and manage, the total cost of ownership, and whether high availability was built in. Of all the solution vendors we considered, IBM came out on top."

He continues: “Our goals were to minimize storage management workload, increase capacity and boost performance, all while keeping costs flat—and IBM enabled us to achieve just that. In the past, we needed to swivel between multiple different systems to manage our SANs. Today, even though we still operate two SANs, we can manage them as a single entity via a one centralized interface, which reduces our administration workload dramatically.”

Thanks to its partnership with e-TechServices, Santa Fe College successfully deployed the new solution rapidly. As the university was an early adopter of IBM HyperSwap, e-TechServices aided the Santa Fe College IT team in deploying and configuring the system, and conducting thorough failover tests to ensure high availability. Today, the platform

supports all of the college’s student-facing services, including its ERP system, faculty portal and student portal.

“More than 90 percent of our storage is allocated to our virtual servers, and we use VMware tools to provision and deploy IBM storage for our on-premises workloads,” explains Thompson. “Our experience with e-TechServices was great—their team was professional, punctual, and ensured that the project progressed smoothly. Whenever we needed assistance, we had a single point of contact at e-TechServices who was always ready to answer our questions—or to connect us with the right resources within IBM when we needed them.”

Mario Ariet, Co-Founder, President and COO at e-TechServices, adds: “Integrating a complex, highly available storage system is not a trivial task. Having worked with a very

talented Santa Fe College IT staff over the years—and being familiar with their requirements—we had no hesitation in recommending the IBM Storwize V7000 with HyperSwap and IBM Spectrum Protect as an ideal storage solution for the college.”

## **Attracting talented new students to the college**

With IBM HyperSwap technology at the heart of its disaster recovery process, Santa Fe College can switch to its secondary data center in milliseconds, not hours—ensuring its student registration systems are always online when they’re needed most.

“Today, students would barely notice if we experienced unplanned downtime at our primary data center—the class registration system would

simply slow down for a second while the changeover happened automatically in the background,” comments Thompson.

“In addition, we have consolidated our storage from a full rack of equipment to just 8U—a reduction of around 50 percent. As a consequence, we’ve reduced our power, cabling and switch requirements substantially, cutting our operational costs. Every cent we save on our infrastructure can be redirected to develop our student-facing services, so we are extremely pleased with the results we have seen so far.”

He adds: “It’s difficult to overstate how much easier it is to manage our storage environment now. We have reduced our requirements from two

full-time equivalents down to just one FTE. Even better, we have achieved these savings while doubling our storage capacity from 40 terabytes to 80 terabytes, creating space for future application growth.”

Santa Fe College’s IBM Storwize V7000 solution includes a solid-state caching stage, enabling faster access to hot data and boosting overall application performance.

“Without a doubt, our Storwize V7000 solution enables us to plan our future workloads better,” says Thompson. “We now have visibility of the IOPS [input/output per second] we can get from the platform, which gives us an insight into how many virtual workloads we can support without degrading application response times for end-users.

“The solution is already enabling new services that would have been too demanding for the previous SAN. For example, we have recently deployed a new document management system for the faculty—enabling the college to go paperless, and helping staff to share information faster.”

Thanks to its IBM solution, Santa Fe College can scale out its storage quickly and cost-effectively to support its long-term requirements.

“In the past, adding additional storage meant sourcing and purchasing new disks and new licenses for all the different management tools we needed to operate the platform,” explains Thompson. “We now have all the storage we need for the foreseeable future—and even if we

do require more, it’s as simple as sliding in another tray of disks. All we need to do is format them, add the space to our devices, and we’re up and running.”

Based on the success of its IBM Storwize V7000 deployment, Santa Fe College is planning to update its IBM Spectrum Protect backup solution to the latest version—enabling it to take snapshots directly from the SAN.

Thompson concludes: “The SAN is the pillar of almost everything we do—and thanks to IBM Storwize V7000 with IBM HyperSwap, we can ensure that every student has access to the tools they need to join the college and succeed in their studies.”

## Solution components

- IBM® HyperSwap®
- IBM Spectrum Protect™
- IBM Storwize® V7000

### Connect with us



### Take the next step

Headquartered in Gainesville, Florida, and established in 1999, e-TechServices helps clients across the United States efficiently and affordably meet their ongoing and demanding information technology needs including IBM Storwize, IBM Power Systems, IBM Cloud, SoftLayer and SaaS. An IBM Premier Business Partner, e-TechServices delivers a comprehensive range of integration and support services to medium-sized and enterprise businesses. To learn more about e-TechServices, please visit: [e-techservices.com](http://e-techservices.com).

© Copyright IBM Corporation 2016. IBM Systems, Route 100, Somers, NY 10589.

Produced in the United States of America, October 2016. IBM, the IBM logo, ibm.com, HyperSwap, IBM Spectrum Protect, and Storwize are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at “Copyright and trademark information” at [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml). This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates. The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on specific configurations and operating conditions. THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS IS” WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.



TSC03408-USEN-01

