



SUCCESS STORY  
**Education**



**TECHNICAL COLLEGE SYSTEM OF GEORGIA  
PROBLEM SOLVED**

The Technical College System of Georgia standardized on a FlexPod® converged infrastructure, simplifying IT management and enabling nonstop access to student information and to online courses.

# Making High-Quality Higher Education Affordable

As the cost of higher education has skyrocketed, student debt has reached an all-time high, and finding a good job can be difficult for many of today's college graduates. The Technical College System of Georgia (TCSG), however, is bucking that trend. With affordable training programs in high-demand, technical fields and a 99% job placement rate, TCSG is a leader in technical education. To remain successful, TCSG must stay on the leading edge of technology—today and tomorrow.

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**“The flexibility of NetApp’s unified storage means that we can protect a wide range of workloads with enterprise-grade security and high availability so that students and staff always have access to their data.”**

Daniel Black

Director of Engineering, Technical College System of Georgia’s System Office

TCSG provides technical education, adult education, and business and industry training for more than 100,000 students across the state of Georgia. With 22 colleges and 85 campus locations spread across the state, TCSG serves a diverse population, from rural towns to larger metropolitan city centers. Although each college has its own unique area of focus, they are all united by the common goal of building literate and economically strong communities and businesses.

From TCSG’s System Office, Director of Engineering Daniel Black and his team provide support for each of the colleges in the system. Their tasks include performing standard implementations and installations and providing support for data center infrastructure. In the past, this centralized support was nearly impossible because every college used its own mix of network, compute, and storage technologies in its data center. For the System Office, that diverse mix meant supporting 22 different architectures and dozens of technology vendors.

“Maintenance costs were skyrocketing,” explains Black. “And with every

school running different hardware, it became harder and harder for our small, centralized agency to help.”

It all began to change in 2011, when the first college deployed its first FlexPod solution, which integrates NetApp® storage, Cisco UCS servers, and Cisco Nexus switches into a validated, enterprise-class IT platform. Over the next 5 years, each of the remaining colleges in the system followed suit.

“As a technical college system, it’s very important for us to be on the leading edge of technology,” says Black. “We can now support that effort by providing a robust, highly available solution for students to access education anywhere, anytime.”

### **SIMPLIFICATION THROUGH STANDARDIZATION**

With all the colleges standardized on FlexPod, TCSG’s System Office can now support them by using a common toolbox. That level of standardization enables Black and his team to manage increasing responsibilities while keeping the staff small.

“Standardizing on strong relationships, a few key vendors, and a

single-stack solution has been the key to our success,” says Black.

“Having a common support platform has enabled us to cross-train almost all the members of the IT department so that they provide a consistent level of support and can confidently take on more duties.”

Simplified support from NetApp and Cisco enables busy IT staff at the colleges to quickly resolve issues so that the staff can get back to supporting students. “The IT staff at the colleges are strapped,” adds Black. “Their time is at a premium, and being able to have a single phone number to call for support is very beneficial to them.”

With a converged infrastructure, FlexPod enables TCSG’s colleges to standardize on a validated architecture while retaining the flexibility to build the data centers that they want—adding storage, servers, and switches as needed. FlexPod supports TCSG’s Ellucian Banner student information system and its Cisco Unified Communications System, and it provides an optimal platform for schools that deploy virtual desktop infrastructure.

“One of the reasons we are so excited about the FlexPod solution is that it offers us an extreme amount of flexibility in terms of workloads that we run to support our colleges,” explains Black. “It also provides each and every one of our colleges with the flexibility to scale their solution up or down to meet their unique needs.”

Support for multiple protocols makes it possible to use the same basic building blocks to enable the wide

range of workloads that are used across the college system.

"NetApp's multiprotocol capability was a major draw for our colleges," adds Black. "With NetApp, we can enable our colleges to retain their skillsets. They don't have to learn something new or put in a mix of products just to accommodate their protocols."

Efficiency technologies, such as deduplication, compression, and thin provisioning, enable the colleges to lower their costs by reducing storage requirements. Because FlexPod easily integrates older NetApp systems to add capacity, the colleges can delay additional investments and can get up to 4 more years out of their existing equipment.

TCSG now also has a robust solution to support students' needs 24 hours a day, 7 days a week. NetApp ONTAP® software delivers nondisruptive operations with zero downtime for maintenance and upgrades.

"The flexibility of NetApp's unified storage means that we can protect a wide range of workloads with enterprise-grade security and high availability so that students and staff always have access to their data," says Black.

## A VISION FOR HYBRID CLOUD

Now standardized on FlexPod, TCSG is looking forward to implementing a new standard for backup and recovery across its 22 colleges. Instead of backing up to tape, each college will soon back up data to a centralized location by using NetApp SnapMirror® technology, simplifying management, reducing costs, and increasing reliability.

TCSG is also working closely with NetApp to develop a cloud strategy that will allow the organization to blend private and public cloud offerings while maintaining superior levels of security and data privacy.

"To enable our cloud strategy, we are closely looking at Amazon Web Services or Microsoft Azure," explains Black. "The fact that NetApp has strong partnerships with both makes NetApp a natural fit for our needs. We trust NetApp to help us sculpt our long-term hybrid cloud vision."

## SOLUTION COMPONENTS

### FLEXPOD DATACENTER COMPONENTS

[NetApp AFF8060 series systems](#)

[NetApp AFF A200 series systems](#)

[NetApp FAS2552 series systems](#)

[NetApp FAS8020 series systems](#)

[NetApp ONTAP software](#)

[FlexClone® technology](#)

[SnapMirror replication technology](#)

[SnapCenter® software](#)

[Cisco UCS blade servers](#)

[Cisco Nexus switches](#)

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