Keeping Higher Education in Step with IT

North Carolina Community College System finds a cost-effective route to modernization.

In higher education, IT departments face tight budgets and a relentless focus on controlling costs. At the same time, technology is increasingly critical to meeting the varied needs of institutions, students, and faculty. As a result, IT departments are constantly trying to deliver both greater efficiency and better service—and that's a big challenge.

The North Carolina Community College System (NCCS) is no stranger to that challenge—and it has found an effective solution. This third-largest community college system in the US is made up of a network of 58 colleges serving more than 800,000 students across the state. To keep IT departments in step with the evolving demands of higher education, many of these colleges have modernized their IT infrastructures using compact and powerful Fujitsu M10 SPARC-based servers designed with Oracle.

Working with Raleigh, North Carolina-based Alphanumeric Systems—a Gold-level member in Oracle PartnerNetwork (OPN)—these community colleges have implemented Fujitsu M10 servers as part of a state-of-the-art higher-education platform that helps reduce costs, boost productivity, and ensure student success and effective day-to-day campus administration.

A Smooth Transition to a Complete Solution

The North Carolina Community College System offers high-quality, accessible educational opportunities to the surrounding communities through education, training, and retraining for the workforce, including basic skills and literacy education, and occupational and prebaccalaureate programs. To support that mission, numerous community colleges in the system wanted to modernize their IT infrastructures. They were using older, rack-mountable Sun Enterprise 450 and Sun Fire V890 servers from Sun Microsystems and other SPARC Enterprise servers, which had been in place for many years. The colleges were looking for a solution that would provide increased performance, and help reduce operating expenses while improving service to the colleges' various users.

The Fujitsu M10 servers provide a cost-effective entry point for achieving both the efficiency and performance the colleges wanted. "The Fujitsu M10 server is an ideal platform for higher-education institutions because of its award-winning green technologies, powerful performance, and low price point," says Tarrie French, senior account executive at Alphanumeric Systems. "The Fujitsu M10 server fit the colleges' requirements for an easy and low-cost upgrade from the legacy SPARC processor-based systems to run their business-critical database and applications."

With Alphanumeric's help, the colleges saw a smooth transition as they adopted either Fujitsu M10-1 or Fujitsu M10-4 servers. "Alphanumeric has deep technical knowledge," says Linda McDaniel, director of Information Services at Catawba Valley Community

College. "They planned, scripted, and automated everything for us, including two trial runs and a final production run, to make sure everything was in order when we went live."

Alphanumeric's approach not only streamlined implementation, it also helped ensure that the solution was designed for the long-term. According to Wayman White, director of Information Services at College of the Albemarle, "Alphanumeric not only helped us through the whole process of deploying the solution, but they also help keep us 'ahead of the curve' by asking questions in anticipation of future trends and policies."

The result of these efforts was a complete solution based on the Fujitsu servers, Oracle Solaris, Oracle VM Server for SPARC, and comprehensive software from Ellucian, a leading provider of higher-education software. The new platform is now in place at 14 community colleges, where it is being used to manage day-to-day campus business processes, including student admissions and registration, accounting, payroll, and human resources.

The Payoff of Modernization

The new infrastructure has brought improvements on several fronts—starting with better throughput and faster response times. "The Fujitsu M10-1 is a workhorse server, and its increase in speed over our previous solution is a big plus," says White. In addition, the servers also employ high-availability principles at all levels, from the processor chip to the system design, which helps deliver 24/7 uptime for critical campus applications.

The system's performance is especially key to keeping pace with peak workloads during enrollment and end-of-year activities—and ultimately, to providing effective service to students and staff. Furthermore, adds White, the servers deliver all of this very efficiently: "Our old V890 system took up half the rack, while the new Fujitsu M10-1 is significantly smaller and uses just one small slot."

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Just as important, the Fujitsu servers provide the flexibility needed to meet evolving needs, such as rising workloads and growing student populations. One of the key strengths of the Fujitsu M10 servers is their dynamic scaling capability. The server's Fujitsu SPARC64 X and X+ processors have 16 cores, and these can be activated one core at a time. This means that organizations can buy only what they need now and pay as they grow—an on-demand approach that helps keep IT spending in line with actual needs.

"The Fujitsu server allows us to easily increase the size of the system and its throughput capabilities for scalable growth," says Catawba Valley's McDaniel. "The Fujitsu M10 server also gave us the opportunity to add more local storage capacity, so we don't have to rely so heavily on our SAN for data storage."

The servers also help keep operating costs down. They are efficient to operate, and their compact size has cut space requirements by up to 75 percent. In addition, the new servers provide up to a 50 percent reduction in power consumption.

Looking ahead, additional community colleges in the system can take advantage of the Fujitsu-based solution delivered by Alphanumeric as they decide to replace aging systems. Indeed, Alphanumeric's efforts have created a complete, easily replicated solution that can be quickly adopted by higher-education institutions as they pursue IT modernization and consolidation efforts. In doing so, they are likely to achieve similar benefits seen at the North Carolina Community College System. Simply put, says Alphanumeric's French, "The schools that have adopted the Fujitsu M10-1 or M10-4 servers have really experienced a huge performance boost at a very attractive price point."

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