



SUCCESS STORY
Education



MIAMI-DADE COUNTY SCHOOL DISTRICT PROBLEM SOLVED

When the fourth-largest school system in the United States set out on a digital transformation journey to improve student outcomes, it focused on the modernization of its IT infrastructure.

Miami-Dade County Public Schools Optimize Operations and the Learning Experience for 345,000 Students

The Miami-Dade County Public School district equips schools, students, educators, and parents with best-in-class hardware, software, and applications to provide each student with a world-class education. So, to support mission-critical applications for teachers and learners, and to better serve school administrators with its SAP software suite, the district upgraded to a NetApp® flash solution.

Another NetApp
solution delivered by:



Significantly improves
performance of instructional
applications that
700,000 users
can access 24/7

Meets users' need for
anywhere, anytime access of
280,000 devices
including desktops, laptops,
and tablets

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David Dixon
Systems Architect, Miami-Dade County Public Schools

Miami-Dade County Public Schools has 345,000 students and more than 40,000 employees across 392 schools. Fast access to applications such as its gradebook application is vital to enter grades, to submit homework assignments, and to view student progress. From teachers and students to parents and volunteers, 700,000 users rely on access to this data 24/7, and the district can't afford to have the system go down.

“Apps are used every day and are the lifeline of what the teacher is going to be doing in the classroom,” says Paul Smith, district director of technical services and data security at Miami-Dade County Public Schools.

Keeping these applications live and accessible is critical to students' daily education, so when added software features and high-traffic periods caused slowdowns for applications, the district turned to NetApp. Moving to a flash solution proved instrumental in helping officials optimize the district's gradebook application.

“There were major issues every time grade reporting came around,

because 20,000 teachers would be hitting the same application at the same time, doing the same type of tasks with different records,” says Smith. “The minute we moved these databases to NetApp AFF, all of our I/O problems cleared up.”

MEETING END-USER DEMANDS

The solution also helps the department meet user demands for increased mobility and the ability to access information anywhere, anytime. As soon as a new app is introduced, the department can easily increase storage so that the level of performance across other apps is unaffected. That reliable performance is critical for a school district that wants to keep providing innovative learning technologies as it continues to grow.

Most importantly, NetApp technology enables fluid movement of resources so that IT can make adjustments as needed without affecting the user experience.

“We have to keep up with the application teams and their demands for more compute power on the back end in order to support their initiatives. It could be by increasing

the RAM storage or the size of the front-end servers, or by moving more apps to flash,” Smith says. “As soon as something new comes on, we want to maintain the performance level they're used to.”

FACING UNPREDICTABLE BUDGETS WITH CONFIDENCE

The need for performance stretches beyond learning applications to the systems that keep the entire district operating smoothly. Because it connects information across departments to manage school processes more efficiently, Miami-Dade's SAP enterprise resource planning (ERP) system, which integrates financial, procurement, human resources, and payroll systems, is crucial to operations.

Moving that system on to AFF has not only given administrators peace of mind about constant, fast access, but it has also saved the district hundreds of thousands of dollars each year. So, instead of spending money on IT, the district can allocate those funds to support student learning by updating textbooks and by hiring more teachers.

For a public school district with budget constraints, affordable data management is another priority that NetApp technology helps to achieve. NetApp AFF supports the district's I/O-intensive operations, including its larger SQL Server databases and its Microsoft System Center Configuration Manager (SCCM) environment. SCCM manages all the 280,000 devices, from desktops to laptops to tablets, that are used at the schools. Students can therefore continue to learn, no matter how they're connected.

"We needed something that was modular, that would allow us to grow and take advantage of the way that we were funded," says David Dixon, a systems architect in the district. "We found that NetApp allowed us to grow and scale more

easily and to not have such a big financial hit up front."

The NetApp solution was instrumental in helping the district's IT team meet its budget goals. The team was able to consolidate nine full racks of disks into three racks, and they reduced 100TB of storage to 13TB through deduplication and compression. "After moving to NetApp, we're definitely able to do more with less," says Smith.

As the district's data needs grow, NetApp also helps officials analyze their changing technology procurement needs to stay in line with the IT budget. "We're never in a situation these days where a new project pops up and everyone has to go scramble for funding because our infrastructure can't support

it," says Smith. "With NetApp, we can accommodate our expanding needs on the fly."

"What we want is for our students and faculty to have the smoothest experience in accessing whatever data they need," adds Smith. "Maintaining fast equipment and optimal accessibility with NetApp is how we can create the best learning environment possible."

SOLUTION COMPONENTS

NETAPP PRODUCTS

NetApp AFF

NetApp FAS3020

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