



IT TRANSFORMATION FUELING THE LEARNING ENVIRONMENT

McAllen Independent School District equips students with 21st-century skills and saves \$1 million in rebuilding its network



Educational Services

United States

Organization needs

McAllen ISD decided to rebuild its network as a more effective infrastructure for learning. The district hoped to bring greater control and transparency to IT administration and ensure optimal performance and uptime of its wireless and network technologies.

Solutions at a glance

- [Networking](#)
 - [Dell EMC Networking C9000 Series switches](#)
 - [Dell EMC Networking N3000 Series switches](#)
 - [Dell EMC Networking S4000 Series switches](#)
 - [Aerohive® AP250 Wi-Fi Access points](#)
- [Network Security](#)

Organization results

- Improves the user experience of students and teachers
- Facilitates new process efficiencies in school district operations

\$1M

saved immediately by implementing a Dell EMC network infrastructure



Provides a strong voice in **technology innovation**

for learning



McAllen Independent School District (ISD) in Texas's Rio Grande Valley achieves remarkable results. McAllen high schools rank in the gold and bronze categories of the "Best Schools in the Nation" listings by *U.S. News & World Report*. Three of the five McAllen high schools are featured in *Newsweek's* ranking of the schools proven to be most effective in turning out college-ready graduates. Operating in the metro area ranked poorest in the United States, where close to three-quarters of the district's population is economically disadvantaged and a third has limited English proficiency, McAllen relies on modern technology to beat these challenges and achieve excellent outcomes. It was one of the first districts in the country to provide everyone — 24,254 students and 1,675 teachers — with mobile devices to facilitate effective learning and teaching.

Looking to IT for learning enablement

Expectations are high for the McAllen IT department, which needs to manage the district's computing resources and deliver excellent service quality. Several concerns prompted a decision for a complete network overhaul. Pat Karr, district director of network services at McAllen ISD, says, "The biggest challenge we had over the years is that our solutions became unmanageable. If you can't even see what exactly is happening, it becomes very difficult to control. We wanted to return to simplicity."

Karr also hoped to align technology closer with the school district's mission of learning enablement. "We lacked a purpose-built ecosystem," he explains. "Also, the technology was not self-healing." At the same time, McAllen aimed to improve the reliability of the wireless network. Karr says, "Our students are digital natives who expect that wireless is available 100 percent of the time. Our curriculum is becoming more and more based on wireless technology."

Changing technology directions

IT Transformation initiatives provide an opportunity to re-evaluate network architectures and deployment models opting for modern, open solutions that are more cost-

effective, perform better, and allow for greater scalability while meeting the needs of modern users and workloads/applications. After 18 years with the same vendor's products, McAllen decided to review leading networking solutions. The district solicited bids from several vendors including Dell EMC and Hewlett Packard Enterprise.

The district closely reviewed technical capabilities, the interoperability of multiple manufacturers' devices, and the financial impacts of purchasing and long-term operation. Karr notes, "As stewards of taxpayer monies, we have to scrutinize the financials of any program, product or service."

"We went from technology that we've used and were comfortable with for 18 years to a brand new solution that is much more robust and easier to manage."

Pat Karr
District Director of Network Services,
McAllen Independent School District

90%
reduction in IT
complexity



Cut costs

for support
and licensing



“By concentrating strictly on a Dell EMC infrastructure, we reduced the complexity of network operations by a factor of 10.”

Pat Karr
District Director of Network Services,
McAllen Independent School District

The vendors had to demonstrate that their solutions would support a simple IT and network environment that would be flexible and easy to troubleshoot and manage. Each was asked to provide a proof of concept of the proposed networking and wireless technologies.

McAllen ISD chose Dell EMC networking solutions together with wireless devices from Dell EMC partner, Aerohive Networks. Summing up the outcome, Karr says, “We went from technology that we’ve used and were comfortable with for 18 years to a brand new solution that is much more robust and easier to manage — and which performs better than what we had in the past.”

Rebuilding the network on Dell EMC

Supported by Dell EMC partner Weaver Technologies, the district deployed Dell EMC Networking N3024F, N3024P and N3048P 1/10GbE switches; Dell EMC Networking S4048 switches; and Dell EMC Networking C9010 switches. The Dell Networking solutions interoperate smoothly with the district’s existing Dell EMC servers. SonicWall™ devices secure the network.

The district’s WiFi is powered by Aerohive® AP250 access points installed in schools and campuses. McAllen also implemented Dell OpenManage Network Manager software as its centralized network management utility. Dell EMC Smart-UPS Line Interactive devices maintain the flow of power to network resources.

Cost savings of \$1 million, and counting

McAllen ISD realized both immediate and long-term cost savings. Karr says, “We saved about \$1 million by switching out the routing and switching hardware with Dell EMC solutions.” He notes that savings also result from reduced licensing expenses and process changes, including:

- IT administration: “We save because we have to manage less. The network is to some degree self-healing.”
- Help desk: “We can delegate the use of the management console to a support specialist and offload it from the most experienced IT professionals.”

- Onboarding: “It’s easier for users to get on the network. We don’t have to provide as much support to human resources as we used to.”
- Support: Minimizing the district’s support costs, Dell ProSupport provides expertise and guidance around the clock and throughout the life of equipment to keep systems running at peak performance.

More simplicity for IT, better performance for students and teachers

With a network optimized for learning, McAllen IT also gained greater control. Karr says, “By concentrating strictly on a Dell EMC infrastructure, we reduced the complexity of network operations by a factor of 10. We have time to manage the network proactively instead of putting out fires.” That directly affects the user experience. “The application management possible with Dell EMC enables us to make sure that students and staff get the best data flow and application performance on our network.”

Innovation partnership for digital learning

At McAllen, students as early as the fourth grade perform programming tasks and create elegant presentations. The district’s success in developing skills that universities and employers seek makes the business community pay attention and brings high-tech execs to school events. Collaboration with Dell EMC and Aerohive yields lasting technical and learning benefits. “The close integration of Dell EMC networking and Aerohive products enables us to manage the devices better,” Karr says. “And, because of the way that McAllen, Dell EMC and Aerohive work together, we can develop great solutions at reasonable costs that are sustainable over time. We have a voice in the direction of the products, so they can enhance their designs for K–12 needs.”



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