Rural California School District Provides Equal Access to Technology

El Centro Elementary School District updates its network infrastructure to support one-to-one solutions for students.

Executive Summary

El Centro Elementary School District

- **Industry:** Education, K-8
- **Location:** Imperial County, California
- **Number of Employees:** 5000 students

CHALLENGE

- Need to update network connectivity in the district
- Desire to provide one-to-one technology solutions
- Need for a flexible and scalable network solution

SOLUTION

- Updated network infrastructure to improve connectivity, flexibility, and scalability
- Deployed a virtual desktop environment to centralize the district's data

RESULTS

- Improved productivity by developing and sharing best practices
- Provided new creative learning environments
- Integrated a one-to-one learning program for all schools in the district

Challenge

El Centro Elementary School District (El Centro ESD) consists of 5000 students and a dedicated staff of almost 600 teachers, aides, administrators, custodians and other service professionals. This highly populated, diverse school district is located in Imperial County, California, which has one of the highest unemployment rates in the state. However, while it is not considered an affluent area, the district has some of the highest performing schools in the county.

El Centro ESD makes it a priority to provide its students and staff with strong Internet connectivity, which is unique for its rural location. According to the Universal Service Administration Company and Federal Communication Commissions' E-Rate program, eligible school districts can receive discounts ranging from 20 to 90 percent for services including telecommunications, Internet access, internal connections, and basic maintenance. In El Centro ESD, 9 out of 11 schools are considered to be 90 percent E-Rate discount schools—enhancing their IT purchasing power.

Because E-Rate enables the district to build a better network and a stronger curriculum foundation, in 2013 the technology team began to explore new ways to connect its students with innovative and powerful solutions. "With a decaying network infrastructure, there was a need to bring connectivity up to speed," says El Centro ESD director of technology Antonio Romayor Jr. "In addition to increasing the pace of our network, we also had to upgrade our computers."

El Centro ESD was also looking to adopt a one-to-one learning environment as an alternative to traditional education. In a one-to-one environment, schools issue a portable device to each student. While this approach tends to be applied in more affluent districts, El Centro ESD can offer a one-to-one environment to its students due to the school's eligibility for E-Rate discounts.

Solution

As El Centro ESD began its search for a new solution, Romayor and his team needed to find a network with high-speed access to the Internet, and a solution that was both flexible and device agnostic.

When it came to the review of Cisco® solutions, El Centro ESD was impressed with the company's switching and wireless offerings and was also a legacy customer. To build on its existing relationship, El Centro ESD chose the Cisco Wireless Local Area Network (WLAN) switching paired with other core network solutions to facilitate scalability throughout the district. "With Cisco switching, network connectivity is much more agile, allowing us to prepare for a comprehensive one-to-one initiative," says Romayor.

The district decided to install access points and Power over Ethernet (PoE) switches,

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Director of Technology,
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as well as phones in every classroom, to support a 10GB Inter/Intranet connection. "Cisco's solution didn't require us to cut walls or spend a lot time preparing; rather, we were able to go in immediately and add 8 ports of PoE in every classroom for an easy, efficient upgrade," says Romayor.

Along with wireless network advancements, El Centro ESD upgraded its data center storage with core offerings from Cisco. This deployment included the setup of Cisco Desktop Virtualization solutions, which centralize the district's desktops, applications and data into a single data center.

Results

Today, with Cisco solutions and the district's E-Rate discounts (which have allowed for flexibility and reallocation of funding where necessary), Romayor and El Centro ESD are closer than ever to providing equal resources to all students.

"The reason we have seen such rewarding results is that we understand the value of a connected network, and we pushed forward beyond financial and geographic obstacles," says Romayor. "Our need was to invest in our district and in our children's future."

Flexibility and scalability are key to the district's improved network functionality. In the past El Centro ESD's curriculum placed a heavy focus on mathematics by ensuring that every school had at least 1 lab with 40 computers. Now, with Cisco's core network solutions, any one staff member who needs to adjust a class's curriculum can deploy an education application without having to worry about the school's technology network.

El Centro ESD's new solutions have also led to small pockets of unforeseen innovation throughout the district. For example, teachers are now using Google Apps to create alternative lesson plans for students with different learning styles or capabilities. Other instructors as also sharing lesson plans digitally throughout the district to better incorporate technology into the classroom.

In one school, a special education teacher invested in providing 200 Apple iPads to students to develop a more visual learning environment and more applicable curriculum for students with varied learning abilities. "The most important thing for our district is to ensure that every child has the opportunity to reach his or her full potential," says Romayor. "We can meet this need by providing supreme services and teaching pedagogies that open our students' eyes to the full potential of their educational journey from a young age."

These successes, and El Centro's ESD technology transformation, would not have been possible without the right solutions to make its network both accessible and flexible network.

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Product List

WIRELESS
Cisco Wireless LAN (WLAN)

DATA CENTER
Cisco Desktop Virtualization

Next Steps

With its new network in place, El Centro ESD's board is in the process of establishing and adopting new strategic goals. In the near future, the district plans to increase student device inventory, in line with a one-to-one environment, by providing an additional 250 devices on the network and placing more laptops in the hands of teachers and students.

The demand for data is also increasing exponentially; however, with Cisco Desktop Virtualization, it's an easy process to transfer the district's data to new devices. As the district continues to scale its virtualization project, capabilities will broaden to provide 500 virtual desktop sessions to more than 5000 students simultaneously.

Using the upgraded network, teachers can also scale their classroom use of Google and Microsoft Apps. This classroom offering will initially reach 3000 children in the district, but as device accessibility expands and the network data center grows, every employee and child will have free access to Google and Microsoft productivity software (Google Docs, Google Slides and Microsoft Office) both at school, and at home.

For More Information

For more information about Cisco virtualization, visit http://www.cisco.com/go/virtualization.

For more information about Cisco wireless, visit http://www.cisco.com/go/wireless.