



Fiber-rich Network Lays Foundation for Oxnard Union High School District's "Blueprint for Greatness"



Measures of Success:

- High-bandwidth supports multimedia data, voice and video services in classrooms
- Administration and faculty enjoy enhanced access to email and software
- WiFi connectivity empowers collaboration between students, parents and teachers
- The scalability of the fiber-rich network lays the foundation for BYOD and one-to-one initiatives

Established in 1901, Oxnard Union High School District (OUHSD) is comprised of eight schools serving more than 16,000 students in the Oxnard, California, area northwest of Los Angeles.

Oxnard's "Blueprint for Greatness," a roadmap for improving student achievement district wide, relies heavily on cutting-edge educational technology designed to prepare students for their post-graduation futures. As technology advances beyond the traditional classroom setting, OUHSD is leveraging new philosophies and technological innovations to drive its primary mission of enriching the learning experience.

Opening the door to anytime, anywhere teaching and learning

"There's an old-school philosophy that says teaching should be done within the four walls," says Puneet Sharma, Director of Information Technology Services for OUHSD. "That's no longer the case. Now, it's anytime, anywhere teaching and learning. In fact, we don't use the term 'students' anymore—we call them 'learners.' Everyone here is a life-long learner."

Unfortunately, the district's legacy network couldn't support the district's growing needs. Built on T-1 connections—in place when Sharma was appointed to his post in 2007—the network lacked the bandwidth needed to support new applications, voice and video transmission, expanded WiFi networks and robust

connectivity for all members of the Oxnard District community.

In response, the district issued a request for bids to upgrade connectivity services, supported by federal E-Rate funds. The goal, Sharma says, was to create a solid foundation to accommodate future technologies.

Building a foundation for existing and emerging technologies

"You cannot build a house without a foundation," explains Sharma. "Similarly, when structuring an effective network you have to make sure you have the capacity to handle traffic, applications and services—immediate and long term. The truth is, in a majority of school districts, you'll see it the other way around. People will typically start with the applications and then think about the network."

Using the same foresight he used to help shape OUHSD as a leader in technology for education, Sharma selected Time Warner Cable Business Class (TWCBC) to build the foundation for its technology needs. TWCBC installed eight, 10 Gbps Ethernet Private Line (EPL), point-to-point circuits. TWCBC's MEF-compliant EPL circuits connecting the main administrative office to each of its eight schools, for an aggregated 80 Gbps of bandwidth. Additionally, separate 10 Mbps and 1 Gbps EPL circuits extend the network to specialized district learning facilities.

Customer Profile:

Company: Oxnard Union High School District, an eight-school district northwest of Los Angeles serving 16,000 students

Industry: Education

Services: 10 Gbps Fiber-optic Ethernet Private Line (EPL)



Puneet Sharma, Director of Information Technology Services, OUHSD

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—Puneet Sharma



Creating seamless connectivity for students, teachers and parents

The high-bandwidth fiber circuits support data, voice and video services in classrooms. Administrators and faculty benefit from improved application performance and access for such mainstays as email and productivity software. Sharma's vision for implementing the Learning Management System (LMS) is another innovative undertaking that will be made possible in the near future. Enabled by TWCBC's EPL, the LMS will be a "one-stop-shop, single sign-in portal" so parents and students can have anywhere, anytime access to applications, learning materials, grades and attendance records.

The robust fiber-rich network also supports high-density WiFi connectivity in the schools, and Sharma notes that the district plans to extend WiFi availability across the community to offer a seamless Internet transition from schools to home networks, empowering continuous learning.

Leveraging the richness of multimedia learning

"We want to make sure learners can access applications anytime, anywhere, from their devices," Sharma says. "We don't think of just a PC or a tablet or a phone anymore—they're all network 'contactors.'"

With a growing number of users eager to connect to learning applications using personal devices, the district is also moving ahead with forward-looking initiatives such as secure bring-your-own-device (BYOD) connectivity and a pilot one-to-one-learning program that provides tablets to students for multimedia learning.

"People nowadays are visual learners; they rely on more than just text and traditional textbooks," Sharma says. The school district wants to immerse learners in multimedia content, ensuring they deliver content to each learner based on his or her preference for interaction with the content.

Keeping high-performance technology affordable

Schools today face an imperative to use cutting-edge technology to advance the educational process. Meanwhile, PCs, smartphones, tablets and online interactions are prominent fixtures in the lives of today's "connected" generation of students. But providing high-speed, high-performance connectivity to multiple devices can put a strain on limited school budgets. Delivering a solution that was both robust and cost-effective was the winning combination for TWCBC and Oxnard, Sharma says.

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Budget constraints dictate that districts choose an E-rate eligible Telecommunications Provider (ETP) such as TWCBC who understands the E-rate funding process with a commitment to reliability and ongoing support, to prevent cost of ownership outpace upfront investment. Sharma notes that TWCBC distinguished itself with a unique understanding of such K-12 needs and a willingness to be a true partner with OUHSD.

"It's one thing to provide service," Sharma says. "But what about maintaining it? What about day two? Those are the questions people should ask themselves. Time Warner Cable Business Class understands our challenges and works with us as true partners to arrive at smart, scalable solutions that can help our district and learners achieve our Blueprint for Greatness mission."



E-learning opportunities abound for learners throughout the OUHSD—such as Pacifica High School, the newest facility (pictured)—enabled by TWCBC's high-bandwidth network.

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About Time Warner Cable Business Services

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