

Pueblo School District 60

*NextLAN® CAT 6+ and Premium Fiber Cabling System
Chosen for Extensive Infrastructure Upgrade*



During the school year, Pueblo School District 60 is responsible for educating more than 17,000 school children that live inside the city limits. In 2003, an impressive project was launched to wire 39 district-owned sites with a new copper LAN (Local Area Network) and replace its antiquated copper network that interconnected all the facilities with a new fiber optics WAN (Wide Area Network). The two simultaneously constructed projects, phased in over the next two years, created a new robust communications infrastructure that facilitated the expanding voice and data needs and left the district with enough headroom to creatively develop its curriculum.

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in multiple configurations out to 30 and 100 meters, was tested for performance. Both the outstanding performance and available headroom for the NextLAN products shown through during the simulations. The NextLAN configuration consisted of the eXtreme® 6 patch panel and jack and DataGain® cable.

From the simulations, the district wanted to know:

- Did the cable solution meet the standards for Category 6 cable?
- How well did the cable solution technically exceed the standards?



A short list of the top three connectivity manufacturers (Leviton, Panduit and Systimax) were invited to submit bids for the project. Ultimately, the NextLAN solution triumphed, taking first-place in a value statement.

It was no surprise that NextLAN performed above industry specifications during the simulation. NextLAN products are independently tested by Underwriters Laboratories (UL) quarterly to verify that all products on the market meet published specifications.

As with all NextLAN products installed and documented by certified Superior Essex contractors, the NextLAN Category 6+ structured cabling system was eligible for a lifetime warranty. This unique value-added service removed the worry over long-term system performance and ensured that the products supported current and future applications.

The Solution

The district capitalized on the \$17.3 million technology component within the local school bond by using a portion of the proceeds to create a state-of-the-art LAN and WAN, both of which are expected to be upgraded to 10 GB transmission speeds within five years.

Superior Essex partnered with Rexel, which played a significant roll in the logistics demanded by a job of this scope. The local Rexel branch in



Pueblo was able to provide hands on assistance and ready expertise throughout the duration of this project.

Based on CATV and voice/data infrastructure design concepts created by Swanson Rink, an engineering design and consulting services firm, the existing inadequate cabling system in every building was replaced with a new copper LAN. The structured copper cabling system was built with NextLAN Category 6+, which consisted of 2.5 million feet of DataGain cable and more than 16,000 eXtreme 6

jacks, face plates, 110 blocks, 4 and 6 position surface mount boxes, and blank inserts. By selecting DataGain, the district received an exceptional performance cable that exceeds TIA/EIA Category 6 specifications.

The new copper infrastructure has created a platform for the district to enhance its data network for e-mails, library databases, centralized files, networked printers, electronic bulletin boards, digital cable TV network. It also allows for wireless connections to be installed in media centers, cafeterias and other locations around the campuses so laptops may be used virtually anywhere on campus. In addition to carrying the typical data requirements, the investment was maximized by using NextLAN to deploy

power VoIP (Voice over Internet Protocol) telephone service. Pulling the entire network together, 95 telecommunications closets connect the horizontal and backbone structure via high-performance fiber optimized cables.

With the LAN needs addressed, nearly 237,600 feet (45 miles) of fiber optics cable was laid throughout Pueblo to create a new WAN. Unite, a Missouri-based communications provider, connected all the school-owned buildings to the new 4,000 square-foot data center. (Previously, the data center was housed in the basement of the central administration building.)

