



CenturyLink Solutions Featuring:

CenturyLink™ Metro Ethernet

Case Study: Madison School District



Customer:

Madison Elementary School District 38,
Phoenix, Arizona
www.ms38.org

Challenge:

District IT managers planned to leverage technology to improve student learning and achievement. The IT executives' plan called for increased usage of online learning content and tools for both students and teachers. However, the District's existing communications infrastructure lacked the bandwidth to adequately support these applications.

Solution:

Following a stringent state procurement process, managers implemented the CenturyLink™ Metro Ethernet Service at each of eight schools and two District sites. The 100 Mbps circuits provide data transport across the District's WAN. Managers also leveraged the Metro Ethernet solution to support a cost-saving voice over IP solution.

Benefits and Results:*

- The Metro Ethernet solution provides the bandwidth and leading-edge technology to support the school's 21st-century educational goals
 - Teachers now leverage Internet instructional resources for students that the legacy network could not support
 - Teachers can now access professional development distance learning programs
 - The CenturyLink implementation helped qualify the District to receive a professional development grant from Arizona State University West
- The high capacity circuits enabled server consolidation that saved the District \$90,000
 - Consolidation dramatically reduced tech support volume—labor hours were shifted to classrooms
 - Web-based systems replaced paper-based solutions to accurately count attendance and ensure proper funding to the District
- 100 Mbps circuits markedly improved the performance of finance and HR Web-based applications
- CenturyLink representatives helped the District leverage E-rate discounts to stretch its IT budget

Madison Elementary School District 38, Phoenix, Arizona

The Madison School District's mission is simple: to promote continuous student improvement through the implementation of a rigorous curriculum and the use of effective instructional resources and strategies that challenge students to maximize their potential.

One such strategy is the development of students' competency in reading, writing and arithmetic. Teachers start early, working with kindergarten students to lay the foundations for the acquisition of these skills. They build upon this knowledge for grades 1 through 8 by leveraging the latest methodologies and best practices.

Teachers also set a good example, taking advantage of professional development opportunities to earn advanced degrees and bolster their subject knowledge and teaching skills.



Facing the Challenges

For its part, the District's Governing Board developed a long-range technology plan to provide students with a 21st-century learning environment. They tasked Tom Clark, director of information services, to implement that plan.

"We discovered that the majority of the resources that children are going to need do not lie within the walls of the classroom," said Clark. "So we needed to provide access to those resources and that includes everything from streaming video to video conferencing."

Clark's team began with an assessment of their current network. "We were already hitting saturation at predictable times during the day when accessing the Internet and network-based resources," said Clark. "We had to ask people to stop doing certain things on the network at those peak times."

*These results are unique to this entity and should not be considered an indication of the amount of savings or improvements, if any, that may be realized by any other entity subscribing to comparable services.

“Qwest has been a valuable partner in helping our District meet its goal to provide a 21st-century education to students. The QMOE solution is the backbone of our WAN, providing the reliable bandwidth to access online educational materials and programs that we simply couldn’t get to before.”

—Tom Clark, Director of Information Services, Madison Elementary School District 38, Phoenix, Arizona

Even during off hours, the legacy network limited professional development opportunities for teachers. They found it difficult to access distance learning programs utilizing streaming video. Worse still, the network’s shortcomings meant that the District failed to qualify for some teacher development grants.

Providing a Successful Solution

Following an exhaustive procurement process, the District School Board unanimously approved Clark’s purchase of the CenturyLink™ Metro Ethernet Service.

“We had a number of reasons for choosing Qwest,” said Clark. “But it boiled down to the fact that they met our technical criteria, they’ve been very responsive and service-oriented in working with us in the past and they’re a tier-one provider we can count on to grow with us for years ahead.”

Clark’s team worked with CenturyLink technicians to install 100 Mbps Metro Ethernet circuits to each of the District’s eight schools, plus two administrative facilities. They used the CenturyLink solution to subsequently implement an economical voice over IP solution. Additionally, the District is using the CenturyLink™ High-Speed Internet service to share a 200 Mbps connection among the schools and facilities.

Delivering Results*

The Metro Ethernet solution established a reliable WAN backbone that supports the District’s educational mission and operational goals.

Supporting a 21st-Century Educational Environment

“Through the use of QMOE, our teachers are able to access Internet-based resources that they couldn’t leverage using our old network,” said Clark. “That allows them to enrich the learning experience of all our students.”

For instance, in Arizona, students are required to receive all of their instruction in English. To instruct foreign-language students, teachers have to provide English and foreign language resources for them. “The QMOE solution makes it possible for us to do that more effectively,” said Clark.

Teachers’ continuing education also received a boost from the CenturyLink implementation. “The QMOE service made it possible for us to qualify for, and receive, a teacher professional development grant from Arizona State University West,” said Clark. “It’s no longer a technical issue at all for our teachers to participate in distance learning programs to upgrade their knowledge and skills.”

Operational Efficiency and Savings

The implementation of the E-rate-eligible Metro Ethernet service allowed the District to consolidate infrastructure to support a Web-based system model. “Instead of spending \$100,000 to purchase eight new distributed servers, I spent \$10,000 for one centralized server,” said Clark.

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By centralizing applications, the District's IT team also cut technical-support labor hours formerly devoted to client-based systems. "Having our applications in one location allowed us to eliminate a very significant amount of technical support we used to do on the client end," said Clark.

Another advantage of moving to a Web-based application model was the replacement of paper-based systems with electronic ones. "As a result, our attendance counts are more accurate which means that we're getting the funding we're entitled to," said Clark.

Soon after the implementation, users noticed improvements in the performance of District applications. "The QMOE circuits allowed us to use a centralized database with a Web interface for our financial and HR applications," said Clark. "Consequently, the speed and performance of these applications has improved to help employees be more productive."



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