

INTERVIEW TRANSCRIPT

Interview on behalf of Qwest

Tom Clark

Madison School District of Phoenix

Director of Information Services

Last updated: 2009 Feb 06



1. Business need

"My name is Tom Clark and I am the Director of Information Services for the Madison Elementary School District in Phoenix, Arizona. The district had developed a long-range technology plan and developed some specific goals for the school district. The governing board actually approved a technology goal for the organization and, of course, being a school district, the emphasis on that was of course around student learning and student achievement, and so walking back from that, we began to build a plan that would enhance student learning and achievement, and that included doing some things with professional development for teachers, providing new and additional resources for students, modernizing the equipment, and modernizing the information systems. And so we began to look at what kind of infrastructure was going to be needed to support that and quickly realized that the very basic components of our network were not going to meet that goal.

Well, one of the things we identified was that we needed to create a learning environment for a 21st century student, and the majority of the resources that those children are going to need do not lie within the walls of the classroom, so we needed to provide access to those resources to students, and that includes everything from streaming video to video conferencing--you know, there's just a huge plethora of online resources out there for students. A growing number of curriculum resources are being put online; we're beginning to move away from paperbound texts to online interactive resources. So the trend was very clear and we knew that we were going to need to be able to grow as an organization; we were going to need to be able to grow our conduit to those resources over time. We were already beginning to feel the impact of our limited resources when we began the technology plan in terms of our network access to the Internet and to network-based resources; we were routinely hitting saturation on our network at specific predictable points of time during the day and so we began to have to do some management of that where we had to ask people to not do certain things on the network during certain times of the day because it was impacting our ability to do things like take attendance and access our financial resources, our financial systems and that type of thing. So we had hit capacity before we ever began the plan."

2. Evaluation & selection

"We went through a fairly exhaustive selection process; we determined that we needed to have--a starting point was going to be 100-megabit access across our wide area network for each of the school sites and based on our current demand, we decided we would start with 100-megabit shared access to the Internet for the school district as a starting point, and so based on that, we began to look at what were some of the options that we could choose from to provide that amount of bandwidth. We felt that a wireless infrastructure was not a good match for us--just we did not have the resources to maintain that and we did not have the capital to design and build that kind of an operation. So because of the nature we're in--we're in the business of providing education to students--we wanted to work with a provider that could provide us with a robust network implementation that we could grow with over time. Looking at all that, we looked at several providers that could provide us with a fiber-based solution and we had a working relationship with Qwest; we were very comfortable with that, with the services that they had been providing us, and so we wanted to work with a well-established company that had a good track record working not only with us, but with other organizations similar to ours.

Some of the other criteria that we considered was the ability to implement this through eRate funding. School districts qualify for discounted services through the eRate program.

Another consideration is the state procurement process; in Arizona, school districts and other public entities are required to follow state procurement laws for purchasing a number of things including telecommunication services, so because of that, we needed to work with a vendor that had an established contract with the state of Arizona to establish pricing."

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3. Why Qwest?

"Why we specifically chose Qwest? Well, going through the list of criteria that we discussed earlier, we quickly came to the conclusion that Qwest met all of that criteria. We'd had very positive experiences working with Qwest in the past; they had been our provider for telecom and telephone services and so having met all of those other criteria, it was a natural progression to move on to this new product. We also did some homework with other school districts who were utilizing QMOE® and Qwest products and they had an excellent track record with those other organizations. So based on that--they met the criteria for eRate, they met the criteria for state contracting, state contract pricing--it was a fairly easy decision and our school board unanimously approved the purchase.

Another criterion that we had established was the desire to work with a well-established provider. There are lots of companies that have sprung up in the last few years in the telecom industry that are providing services that we could have selected; however, because this is a mission critical portion of our operations--we can't do business without it and a lot of learning, a lot of educational activities would grind to a halt if we were not able to keep those services up and running--so we eliminated a lot of other vendors based off of that, and there was a select group of well-established vendors that still remained on the list and Qwest remained at the top of that list, and so that was another important factor for choosing Qwest."

4. The implementation/installation

"In short, it went very well. We had high hopes of completing the entire project within a 12-month time span, and that meant going from beginning to walk the sites to signing off on the project--that was our goal was to get it done in 12 months, and that was for eight schools plus two other sites. And these are sites where we had not established a connection to fiber optic--we had not established a fiber optic connection to Qwest at almost all of these locations, so that meant in some cases trenching between the building to the meet point on the street or figuring out some other alternative way to bring that fiber into the site. So that was a major challenge because you have to get involved with city ordinances and you have to have approval for doing those types of digging prior to doing that. So we learned very quickly that there are a lot of details to implementing a project this size, and we were able to do it; we were able to accomplish it all in 12 months.

We did have some issues; we had to change gears mid-course in a couple of instances where we determined we would not be able to go through a particular piece of parking lot or playground in order to run the fiber, so in one instance we actually ended up doing that connection via an above-ground cable.

The Qwest project manager was excellent at communicating with us the issues as they came up; we had regular team meetings that involved myself, our facilities management director, and the school principal or whomever needed to be in the loop in terms of how that project was going to be impacting their campus.

Some of the bumps were beyond our control, so sometimes it took longer than we would've liked to get the city to approve a permit or something like that, so we had to be able to be flexible as to where we were working at any particular time. We may have to shift work from one campus to another based on that, so we had to adjust timelines, we had to communicate that out to our stakeholders, that the project was changing. But all in all, it was very successful and we met our goal."

5. Overview of solution

"The Qwest solution that we are utilizing includes everything from long distance to our Internet connection. For our QMOE solution, we have 100-megabits for each site across our wide area network, and we also have a shared 200-megabit connection out to the Internet, and the great thing about that is we'll be able to expand that over time as we need to.

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In addition to that, it's important to mention we're also supporting a voice over IP solution across our network using QMOE, and we would not have been able to do that prior to the implementation of the QMOE product; we simply did not have the infrastructure in place to do that.

So the Qwest solution also includes the endpoint routers at each of our sites--and you know, if you're in the public education business, you understand that human resources is a very tight commodity and so we're very limited in some areas of the amount of resources we have to support equipment. So as part of that solution, Qwest is able to support those endpoint devices as well as the connection between our sites.

We have begun to participate in some Web-based, video conferencing-based staff development for teachers; so for example, we have one project where a professor at Arizona State University West in Glendale, Arizona, is providing instruction to a number of sites across the state. This allows our teachers to participate without having to physically attend the classes at that university.

We have set up--in a classroom, we've set up some video conferencing equipment that allows for live interaction with a professor and with students at other remote locations, and there--as you can imagine, there's high demand on our network to support that type of interaction and we've already got a number of other projects like that lined up. We're using some of that same equipment to provide video field trips for students. There's a growing number of universities, museums, zoos that are providing video resources for students--and of course, it's a very high demand on our bandwidth."

6. Business/IT environment

"The IT environment for the Madison School District is basically we have a point-to-point design and we are running QMOE to each of our eight school sites, maintenance and transportation facility, and the district office, and the district office is basically the hub of the network. We have moved towards a number of centralized applications and the QMOE product is allowing us to take full advantage of that where we're able to move away from more client-based applications, moving toward more Web-based, centralized applications.

Some other examples of our IT environment--we have approximately 4,000 computer workstations operating across our network and all of those are connected to our wide area network through the QMOE product, so we have substantially increased the demands for bandwidth for some of that content that I was mentioning earlier, both on our network and on the Internet. So that's become a critical point; prior to implementing Qwest, that was a bottleneck for us because we simply had more demands than what our network could provide.

We've also moved toward centralizing our financial applications, our financial systems; student attendance is all done using a Web-based centralized application. So a lot of our mission critical, core applications have moved towards a more centralized environment, and that has increased the demand on our wide area network."

7. Customer service

"Customer service has been terrific. We have had a longstanding relationship with Qwest, and so we knew before the project ever started that we had resources at our disposal when we needed them. Our account services team is very responsive; they've also been able to help us with some of the eRate application process in terms of helping us understand what needed to be done on a specific timeline, and they're very thorough; we get responses when we need them.

On the technical support side, I have to say that Qwest has also been very responsive on that. We have an 800 number that we have access to 24x7 when we have any kind of an issue with connectivity or anything related to the equipment that is being supported on site by Qwest. We have very--a track record of very quick turnaround and on-site support when we need it; a good example of that happened last summer when the central Phoenix area

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experience a fairly large power outage, and that affected four of the sites in the Madison School District including our district office, which means that our telephone and network communications were down for about eight hours on a school day, so you can imagine the issues that instantly created with communication not only within the district, but also with parents and media who were anxious to find out whether school was open or closed or whether they needed to go pick up their child--so we had to scramble to get some communication established to all of the key stakeholders.

One of the things that we were able to do right away is to have Qwest help us implement some emergency POTS lines--just plain old telephone lines--to our sites and to the district office so that our main numbers were re-routed to those lines and allowed us to maintain some level of communication to people using telephone numbers that they would normally dial."

8. Non-financial benefits

"In Arizona, students are required to receive all of their instruction in English, so that means we have to double up on the amount of resources that we provide for those students. Through the use of QMOE, we're able to access, you know, XYZ out there that're Internet-based, some of which we actually purchase and some of which are free, but we could not leverage those resources without QMOE.

One of the other components of our technology goal that I mentioned was the desire to use technology to improve our professional development, and one of the ways we did that was through participation in some online courses for teachers to do everything to help improve their technology skills to helping them maintain a highly qualified status.

One of the components of our technology goal was to use technology to improve our professional development for teachers and basically all employees in the district, so one of the things that we were able to do is participate in a grant through Arizona State University West. The grant provides the district access to courses that're based off of a video conferencing setup, and so basically the teacher is at Arizona State University West; teachers are at remote sites all over the state of Arizona. And in order to qualify to participate in that grant, the district had to agree to provide the connectivity, which means that you had to have sufficient bandwidth in order to have that ongoing interaction between the teacher and students who are spread out remotely. So we would not have been able to qualify to participate in that grant without having the QMOE product in place because simply our network and our bandwidth out to the Internet were not even close to being sufficient to support that kind of a product.

The other component that we discussed a little bit was the network operations; that was the third leg of our technology goal, and that included using our network to improve the operations of the district, which means that we had to improve the types of applications that we were providing and the access to those applications, and so--you can't have one without the other basically, so in order to improve those operational type things, we had to have--we had to improve our network; we had to improve our infrastructure. And we were able to do that using the QMOE product.

One of the other benefits we experienced is having the ability to utilize some newer type of applications; for example, our financial and our HR system, we're utilizing a centralized database with a Web interface, and basically by having--by being able to access that kind of an application, we're able to improve the performance and the response time. For example, the workflow for personnel requests or the workflow for getting a purchase order established has been greatly improved because the process is no longer a paperbound process; it's all via a Web-based application, and we simply would not have been able to support that prior to implementing QMOE.

Another important benefit that Qwest has been able to help us with is to ensure that we were able to leverage eRate discounts for the costs associated with telecommunication for our network infrastructure and for long distance; basically, all of our Qwest services have qualified for discounts based on the eRate program, so there is a significant financial savings to the district and really to the taxpayers because we're a public entity; we're able

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to return some of those dollars back to the communities that're supporting the schools."

9. Measurable benefits

"One of the things that comes to mind right away is the fact that we've been able to reduce the amount of technical support that we have to spend time and financial resources on, and I'll give you a couple of examples. By centralizing a lot of our applications, that means that we don't have to support those on the client end; basically, if they have a Web browser and a good connection, they're in, and so that eliminates a very significant amount of technical support right there. We're able to consolidate some of the hardware that we have to purchase and support--you know, for example, I mentioned our library automation system or our student attendance system; those all used to be client-based, and if you go back far enough they were paper-based. You know, the student attendance is critical because that's how districts receive their funding, based on student attendance, so that data is absolutely mission critical, and so not only having it in a timely fashion, but in an accurate fashion. We've been able to improve that by moving away from a paper-based manual solution; you know, you all remember raising your hands or the teacher doing a head count--well, now they do that on a computer and it gets uploaded to a centralized database which then in turn gets reported to the state of Arizona, all electronically. So we've reduced the amount of error in that, which means we can accurately count our attendance, which in turn means that we're getting funded at the level that we should be getting funded at.

By reducing the amount of hardware we're supporting at the end of our network, we are able to centralize and reduce the number of servers for a lot of our applications; whereas our library automation system required eight servers--one at the district office and one at each site--now we're supporting one server, and so, you know, instead of spending \$100,000 to purchase eight new servers, I spent \$10,000 for one centralized server.

You can also look at the return on investment for the labor costs; we're reducing the labor costs. You know, like everybody, we're really limited in the amount of human resources that we're able to have as an organization, so anything that we can reduce in terms of technical support, that means we can increase the support that's happening inside classrooms, so teachers and students are not waiting as long for technical support for computer classrooms or for other learning applications that're running on our network."

10. Areas for improvement

"First let me say we've been really happy with both the project implementation and the service and support that we've received as we've been utilizing the product. I think that if I were to look at one thing, I'd ask Qwest to help us keep an eye on the future; help us identify trends in the telecommunications industry; help us monitor what's going on with things like the eRate program and federal regulation--not only make sure we're in compliance, but to make sure that we are building capacity and maintaining capacity for future implementation."

11. Future plans

"One of the important aspects of QMOE that we wanted was the ability to expand over time. You know, there's a great possibility that we will add additional sites to the school district; it may be a new school or a new learning center or, you know, we may have a new location for a maintenance facility or something like that--so we need to have the flexibility to expand services where we need to.

We also are going to need to have the ability to increase the amount of bandwidth that we're utilizing across our wide area network as well as the Internet access, and so we are a dynamic organization and we need a product that will allow--that will follow along with us as we make changes to the organization.

So the other nice thing about it is that we can easily monitor how we are utilizing QMOE as time goes on. We have

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access to real-time information in terms of utilizing bandwidth, any interruption of service or anything like that; there are some great reporting features that're available to us through Qwest."

12. Recommendations and advice

"I think I would say do your homework first and start with the primary goals and objectives of your organization. You know, speaking from someone whose experience is working with schools and school districts and working for them, you know, we had to start with what were the primary goals of the district in terms of student achievement, student learning; and then based on that we developed a goal for technology to support that goal; and then based on that, we began looking at solutions that could help us achieve that goal. And so--you know, go back to the very beginning; don't just jump out there and say 'We need a lot of bandwidth' or 'We need to keep up with the industry trends or what everybody else is doing.' Make sure that what you're doing is purposeful and that you're expending those publicly funded resources in a way that's appropriate for what your organization is trying to achieve.

So given that, I think you need to look at what solution is going to be the best fit for your organization. I will strongly suggest that you look for someone who has been around the block, who's been a provider of this type of service and has a proven track record. You know, if you think you're gonna save a buck by going with somebody and they're new on the block, you know, you're taking a big risk there, and you're taking a risk with things that are mission critical to your organization."



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