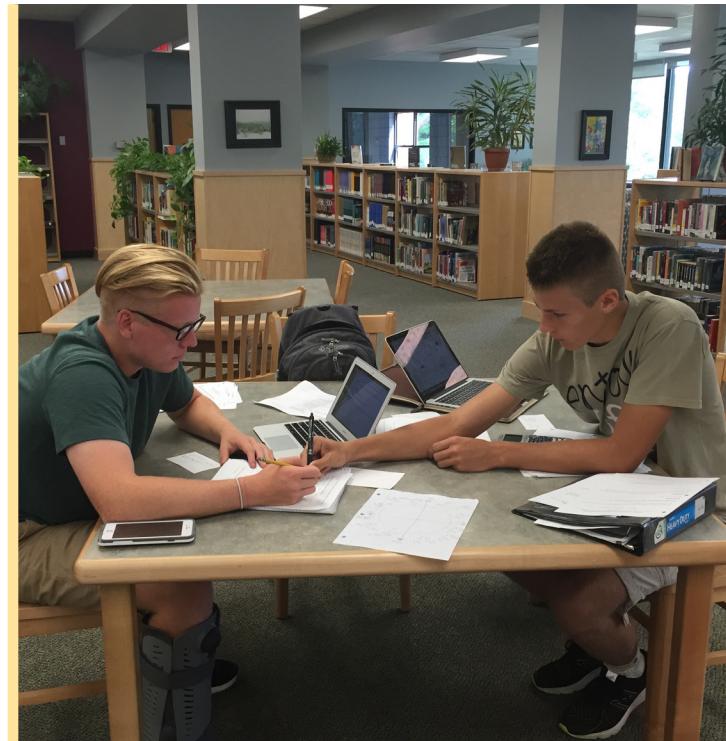




Opening the Door to a Robust Network of Learning Opportunities

How Vermont's Two Rivers Supervisory Union Leveraged Key Partnerships to Build a Seamless and Managed Network That Supports and Enables 21st Century Learning.

Two Rivers Supervisory Union (TRSU), located in Ludlow, Vermont, serves the communities of Andover, Baltimore, Cavendish, Chester, Ludlow, Mount Holly, and Plymouth. TRSU empowers its students by fostering the academic, social, and personal skills needed to prepare them for an increasingly complex society. Equipping TRSU's students with the tools and resources they need to excel in their learning environments is one of the district's top priorities. TRSU recently made the decision to overhaul its fragmented network infrastructure and replace it with a robust and seamless managed fiber-optic network that delivers reliable, high speed broadband Internet. Although the new network has only been in place for a few months, TRSU's students, teachers, and administrators are already seeing (and enjoying!) the results.

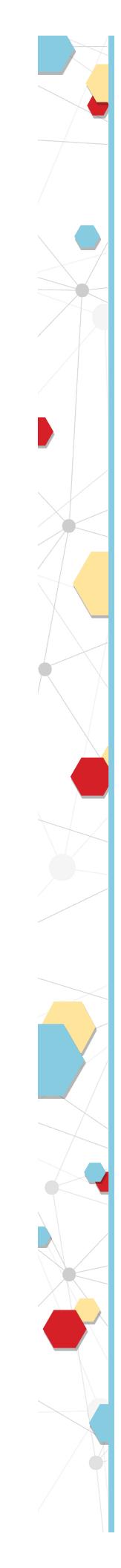


Background

TRSU's previous network infrastructure was outdated and employed a piecemeal approach—each building had its own unique, self-managed network configuration. Due to the influx of mobile devices and increased usage of digital learning applications, TRSU's schools were no longer meeting the connectivity needs and demands of their students and teachers. When Vermont Telephone Company (VTel) secured a federal grant to expand its fiber network into rural areas, TRSU notified VTel that it would like all of its schools to be included in the company's fiber expansion plan.

VTel was excited to deliver this opportunity to TRSU because the company recognized that TRSU had the technology leadership and vision in place to make this project a success. The first step involved deploying baseline Internet services to each school. After the district got each school hooked up point-to-point, the district's technology team had to build a hub-and-spoke WAN configuration per the federal grant's stipulations. Lacking the personnel resources to accomplish this task, the TRSU leadership team began exploring their options.

"VTel was very patient with us during this process, but we needed to find a solution," says Lauren Baker, TRSU's Director of Information Technology. "We considered hiring a network person to help us, but we didn't think we could afford to add another personnel resource. And, even if we could afford it, we were



not sure we could find someone with the qualifications and expertise we were looking for to oversee this project. Plus, we didn't want to put all of our eggs in one basket in terms of network knowledge. Because we are a small, rural district, we run the risk of investing too much knowledge in one or two people. Our Internet access could be jeopardized if an issue arose and our network expert was not available to fix it."

A Cost-Effective Solution

Baker reached out to Peter Drescher, the Education Technology Coordinator for the Vermont Agency of Education, for advice and assistance. Drescher is a passionate advocate for education technology. He is engaged in broadband expansion discussions with Vermont's educational leaders, and he has established himself as a valuable resource for a variety of local education technology topics. Drescher suggested that Baker reach out to Education Networks of America (ENA), a leading provider of broadband, Wi-Fi/LAN, communication, and cloud services for K–12 schools, higher education institutions, and libraries. The state of Vermont has a contract in place with ENA for managed broadband services. The purpose of the contract is to increase bandwidth availability and affordability for Vermont schools, as well as to enable Vermont school districts and supervisory unions to take full advantage of the federal E-rate program.

"After Peter reminded us of the contract the state has in place with ENA, we started doing the math," says Baker. "When we compared the cost of integrating a managed, E-rate eligible service like ENA versus hiring a person, it became very apparent that we should contract with ENA. Plus, retaining ENA's services solved many of our other personnel and capacity issues. Our school system depends on reliable Internet access—our business system runs off of it, our student information system is in the cloud, and the majority of our instructional technologies rely on connectivity. With such a small staff, we very much need a 24x7x365 watchdog like ENA to monitor and manage our network."

Drescher has been impressed with ENA's commitment to serving Vermont's K–12 schools. "It is very clear that ENA is working hard for the schools," says Drescher. "I'm seeing and hearing a lot of positive feedback from the schools about the number of things that ENA takes off of their plates. Having a managed service provider enables them to focus on their schools instead of their telecommunications. Additionally, ENA is a one-stop shop, so the technology team members only have to reach out to one entity instead of four or five. ENA has really helped our schools streamline their telecommunications."

Partnering for Success

After bringing ENA on board, all three teams—VTel, ENA, and TRSU—came together to build and deploy the district's new fiber WAN. ENA's project management office and engineering teams oversaw the implementation and design of a new cohesive, robust, and reliable network that would meet the district's present and future needs. "The entire project team was amazing in terms of being accessible and ready to help," says Lauren. "I know it's a cliché expression, but we were literally building the airplane while it was flying. We were right on the brink of standardized testing, so the timing wasn't ideal, but ENA and VTel pulled it off and did a great job. I am really proud of my technology team members as well. They were all relatively new to our district, but they really stepped up and were extremely helpful during this process."

ENA was happy to work with both the district and VTel during the deployment. "We were excited to be included in this project," says Courtney Hulsey, Manager of Service Implementations for ENA. "We were able to collaborate with VTel and add our managed service layer in a seamless manner. Everyone at TRSU was wonderful to work with, and it was just an overall great experience. We are excited to see how this ambitious, forward-thinking district will leverage their robust network to transform their learning environments."



Changing the Learning Landscape

Tom Ferenc is the Principal of Green Mountain Union High School. He is excited about what the future now holds in store for his students. "We experienced some problems with our prior network, and it was very difficult to troubleshoot those issues when they occurred," says Ferenc. "It has been great to have ENA's support, and I can't say enough about the impact it has had on me. I'm of the baby boomer generation, but I'm an early adopter. At our school, we allocate money in our budget toward purchasing a few of

the latest gadgets and devices. We give them to students and teachers to pilot them for us. Having spotty coverage is a hindrance when you are trying to integrate technology into the classroom. If the computers don't work, we can't move forward. I'm excited that our network infrastructure is now an afterthought—it's simply just there, which is the way it should be. The peace of mind that comes with knowing that our network is up and running and that we are all on the same page is great."

Ferenc is looking forward to using technology to enhance his school's learning environments. "There are massive open online courses that are very good. Those are the types of opportunities that students are going to need, especially in rural locations like Vermont where it is sometimes difficult to recruit teaching personnel. Technology allows you to combine your resources and deliver content cost-effectively."

Using Technology to Personalize Learning

TRSU is also using technology to personalize learning and provide its students with a strong support structure. "In Vermont, we are moving to proficiency based requirements," says Ferenc. "At our school, we are using technology to create personalized learning plans for every student. We want them to feel invested in their education. For example, a lot of students may think they want to be a veterinarian, but when they get into organic chemistry they discover it's a little different than what they thought. In the very near future, our students will complete a series of interest inventories and aptitude tests that will provide them with valuable insight into their interests and skillsets. We will use that data to create an electronic portfolio for every student that we can all use—the students and the faculty—to track their personal learning pathways from the day they enter the system."

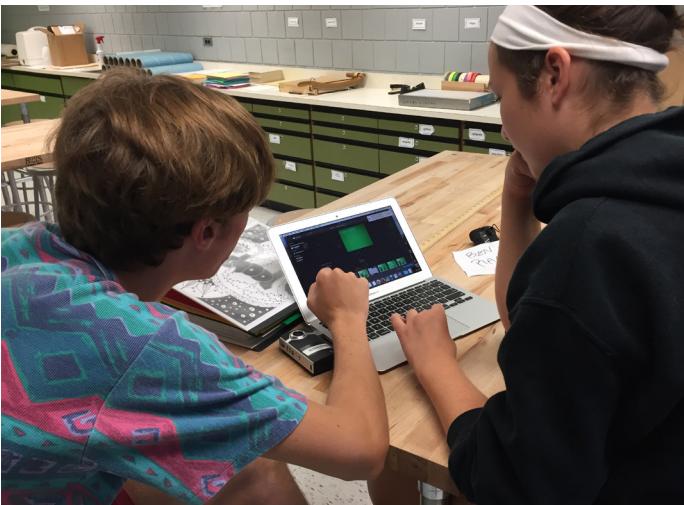
Bruce Williams, TRSU's recently retired Superintendent, is also excited about what the future holds in store for the district's students. "Having all of our schools on an interconnected network will produce some important outcomes for us," says

TRSU's strong commitment to its students is reflected in its mission statement below:

The students and adults of the Two Rivers Supervisory Union will collaborate, think critically, acquire and apply knowledge and creatively solve problems.

To achieve this we:

- Honor all learning attempts as opportunities for academic and personal growth.
- Value our history and our community.
- Teach and model empathy, compassion, responsibility and respect.
- Provide meaningful feedback so all can achieve.
- Nurture a leaning environment that enhances cognitive engagement.
- Commit to multiple pathways so that learning is personalized and relevant.
- Collaborate to assess the impact of our practices on learning.
- Aspire to be citizens of a diverse democracy and a changing world.



Williams. "We will be able to offer more web-based courses as well as streamline and share our resources. For example, one of our high schools, Black River High School/Middle School, only has 160 students. Its small size makes it very challenging to offer a robust set of educational opportunities. Partnering with Green Mountain Union High School and using technology to deliver content is a great way to share our resources and provide our students at Black River with access to enhanced learning opportunities."

TRSU is fortunate to have a technology team attuned to the instructional needs of its schools. "I have ideas and vision, but Lauren makes it work," says Ferenc. "She and her team work behind the scenes to make it happen. They are plugged in and connected across the state, and that is extremely helpful. Lauren understands how technology can be integrated into education."

Creating Valuable Connections

Thanks to the technology team's insight and resourcefulness, the district now has a unified and robust fiber-optic network in place. "In Vermont, we struggle to find qualified people we can afford," says Baker. "Extending the management of infrastructure to professionals like ENA, and having valuable relationships in place with companies like VTel, allows us to do more with less. We have to leverage those types of relationships because we don't have the support staff we need to accomplish what we want to do. It's been a journey to figure out how to do something we don't have the resources for—we've had to be creative. That is why almost all of our services are hosted. We work hard to make sure all of the pieces work."

ENA and VTel are both honored to work alongside TRSU's technology leaders, teachers, and administrators to redefine the district's learning environments. TRSU's robust and cohesive network infrastructure is a shining example of what can be accomplished through the cultivation of strategic and valuable partnerships.

About ENA by Zayo

ENA delivers transformative connectivity, communication, cloud, cybersecurity, and technology services. Our 99% customer satisfaction rating and world class net promoter score (NPS) demonstrate our commitment to delivering exceptional customer care. For more information, please visit www.ena.com, call 866-615-1101, or e-mail info@ena.com.

