

CASE STUDY

Mars Schools Look to FirstLight for Stellar Connectivity**BACKGROUND**

Mars, Pennsylvania is a thriving community with a school system that is the envy of many, with 92% of high school students testing at or above the proficiency level for reading.

Academic excellence is one reason Mars Area School District has made Internet connectivity a priority.

"When it comes to education, our major concern is keeping up with an increased number of devices," explains Ryan Morgan, Director of Technology for the Mars Area School District. Students in grades K-4 have iPads, while students in grades 5-12 have Chromebooks. Snow days also serve as remote learning days. With the exception of students in K-1, all those devices go home with students who log onto the network.

CHALLENGE

"Our District has always been associated with forward thinking and having high educational standards, and connectivity is a critical component of that," adds Morgan. "We found that one gigabit couldn't handle all of our connected devices that are online at school and at home."

Furthermore, based on current projections for continued growth in both Adams Township and nearby Middlesex Township, specifically with new and planned residential developments, the district's student population is expected to continue growing. The school district serves 3,600 students.

"To give you a sense of the growth, my wife graduated toward the end of the 1990s with a class of 100 students," says Morgan. "The Class of 2024 will have 260 students. Our fifth grade class has 320 students."

**EXECUTIVE SUMMARY****EXECUTIVE SUMMARY****INDUSTRY: EDUCATION****LOCATION: MARS, PENNSYLVANIA****CHALLENGE:**

- With a growing school system, Mars Area School District needed to upgrade its Internet bandwidth and connectivity to accommodate an increased number of connected devices
- Administrators needed the flexibility to increase its bandwidth to keep up with a growing proliferation of connected devices and an increasing need for high-quality, low-latency connectivity; they specifically sought a provider that could procure dark fiber to five different locations
- The Mars Area School District undertook a formal bidding process seeking an eligible E-Rate solution provider with experience in dark fiber and school installations
- Given the pace of technology and an increased reliance on having a modern IT infrastructure for its school campus, the IT department sought a vendor that could also serve as a partner to meet future connectivity, security, and unified communications needs

SOLUTION:

- FirstLight delivered an extensive E-rate proposal and worked closely with IT staff and school officials to try to accommodate installation during a challenging scheduling and weather season
- After seeking a bidder that could meet federal E-rate requirements, the Mars Area School District selected FirstLight to increase its bandwidth and provide dark fiber throughout its campus
- FirstLight provided low-latency Internet connectivity at speeds of 10 Gbps and dark fiber to five school buildings
- The FirstLight team continues to work with the school's IT department on recommendations to additional upgrades to its infrastructure, including unified communications, data security, and emergency response systems

RESULTS

- The Mars Area School District is now able to better accommodate the needs of its growing student body with connected devices benefitting from lower latency, less lag, and an overall improved user experience
- Dark fiber will allow the district the ability to control and increase WAN bandwidth for future connectivity needs
- FirstLight serves as a partner and trusted advisor to the Mars Area School District in recommending future upgrades and sharing in the district's mission of offering a quality education via a secure, modern, and optimized IT infrastructure

SOLUTION

Through the federal E-rate funding process, Mars issued a bid request for an Internet provider that could source high-speed Internet and dark fiber to five locations: the administrative building, Mars Area High School, Mars Area Middle School, an intermediate school building, and Mars Elementary School. FirstLight came out on top and was selected as the school's provider.

FirstLight provided low-latency Internet connectivity at speeds of 10 Gbps and dark fiber to five school buildings. Dark fiber provides a highly secure network and virtually unlimited bandwidth, and will allow the school flexibility to rapidly scale its bandwidth to accommodate future growth.

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FirstLight’s low-latency bandwidth will allow a much better user experience when multiple users are on-line at the same time. Increased bandwidth will be particularly beneficial during peak hours both during school and after school when students are on the Internet using various applications while doing homework, streaming videos, or listening to music – sometimes simultaneously.

In the future, the district is looking at further upgrades to its phone system as well as to its emergency notification system.

“Technology is one of the most important teaching tools in today’s classroom, so it makes sense to invest in its future,” adds Morgan.

ABOUT FIRSTLIGHT

FirstLight provides a full complement of cost effective, high quality, scalable telecommunications services, including high speed Internet access, data center, monitoring, cloud, managed and voice services to retail and wholesale customers throughout the Northeast and Mid-Atlantic.