

# The Schools of McKeel Academy empower students with Ultra-High Speed Data

## Partnership with Spectrum Enterprise drives technology-based learning at charter schools

The Schools of McKeel Academy consist of three institutions in Lakeland, Florida. These provide tuition-free education to children in grades pre-K through 12, employing a technology-focused curriculum. Established in 1998 and recognized by the state of Florida as a high performing charter school system, the schools have built a reputation for academic excellence.

Their advanced programming requires broad and deep use of data at all schools, particularly at the McKeel Academy of Technology for grades 7-12. In 2023, existing connectivity partner Spectrum Enterprise delivered major enhancements at all three schools, including the installation of a fiber circuit that enables ultra-high speed data transmission.

“It’s critical that our classes have access to the internet because that’s where content is being delivered to our students. So it’s good that we can rely on the stability of Spectrum Enterprise connectivity to all our classrooms.”

- Craig Black, IT Project Manager, The Schools of McKeel Academy

The installation of the fiber circuits was accomplished in a matter of hours, with no disruption to school activities. Today the schools utilize their increased internet access to enable software-as-a-service (SaaS) educational programming and access to online video and learning platforms.

The additional bandwidth also supports The Schools of McKeel Academy WiFi network. Every Academy student, from preschool to the 12th grade, is equipped with his or her own tablet. This helps students stay connected to their school’s learning platform, whether on campus or at home.

### Building the capacity to do more

The technology partnership between The Schools of McKeel Academy and Spectrum Enterprise began in 2015. Back then, a single fiber circuit was enough to manage the needs of both its lower schools (which each serve pre-K through 6th grades) and its upper school.

That began to change in 2020, partly driven by a need to accommodate remote learning as well as widespread advances in educational technology.



The educational mission of The Schools of McKeel Academy is powered by teachers, administrators and the fiber connectivity being leveraged from technology partner Spectrum Enterprise.

### Client profile



#### Company

The Schools of McKeel Academy

#### Industry

K-12

#### Services

Dedicated Fiber Internet (DFI)

## Overview

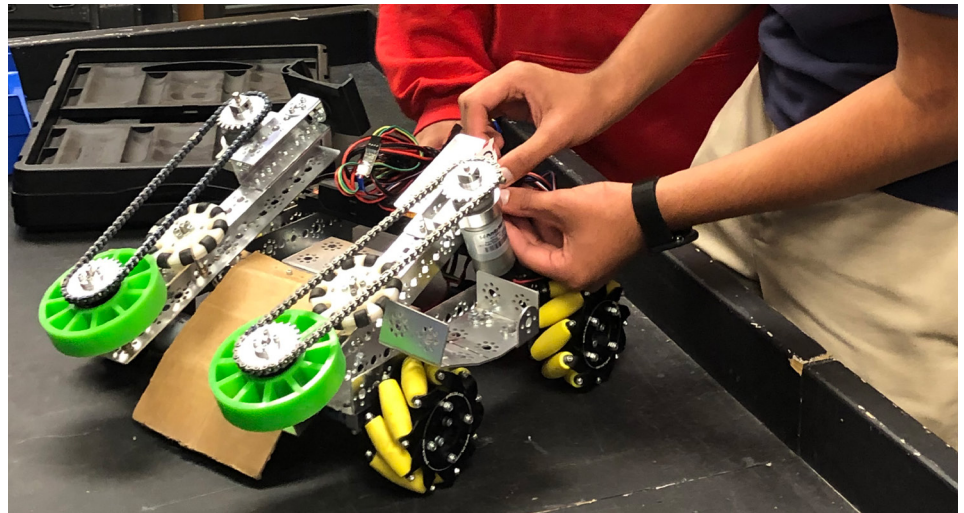
- The Schools of McKeel Academy in Lakeland, Florida is a not-for-profit charter school system serving over 3,600 students from pre-kindergarten through high school.
- A longstanding focus on technology and its educational uses at all grade levels requires vast amounts of data streaming across the three McKeel Academy institutions every day.

## Outcomes

- Spectrum Enterprise expanded available bandwidth at each McKeel Academy school by installing fiber-based circuits that provide reliable and scalable connectivity.
- McKeel Academy of Technology, for grades 7-12, upgraded to a Spectrum Enterprise fiber circuit that enables ultra-high speed data delivery.
- This expanded use of data is critical as all McKeel Academy schools utilize both cloud-based learning initiatives and increasingly video-intensive educational programming.
- A critical 1:1 ratio between students and handheld devices is maintained through WiFi networks at all three schools.

## Why it matters

- The Schools of McKeel Academy leaders understand connectivity is vital for students pursuing futures across a wide variety of disciplines, including science, technology, engineering and mathematics (STEM).
- Having an ultra-high speed circuit creates additional flexibility, enabling the creation of virtual local area networks whenever bandwidth usage at the lower schools exceeds existing circuit capacity.



Today's student often takes on their schoolwork outside the classroom. High bandwidth capacity at all three Schools of McKeel Academy locations enable learning on the go, powered by Dedicated Fiber Internet (DFI) circuits. At the McKeel Academy of Technology, this capacity is boosted by an ultra-high speed data circuit.

"We started having internet congestion at our network edge, and realized we needed direct internet access to all our campuses," notes Craig Black, IT Project Manager at The Schools of McKeel Academy. "Especially at our upper school, McKeel Academy of Technology, we found ourselves brushing up against WAN (wide area network) throughput issues that required us to think about elevating the type of fiber circuit being used."

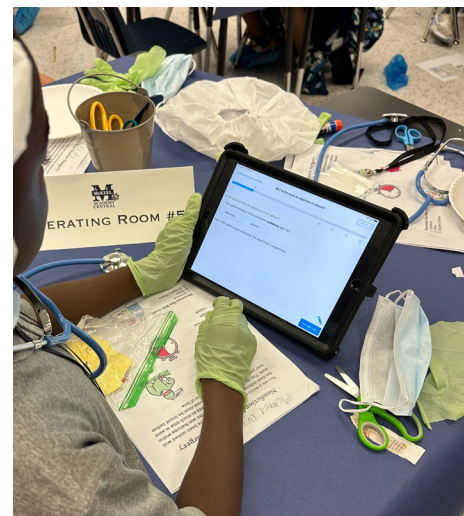
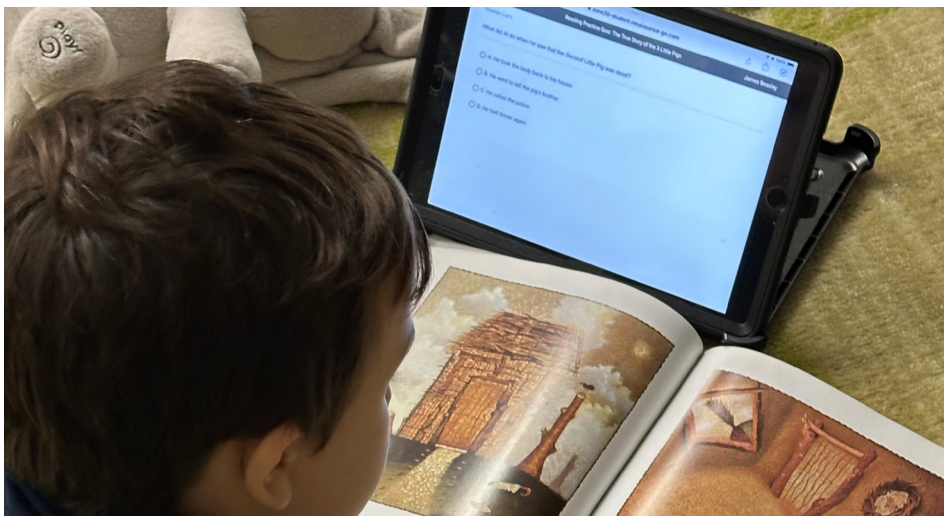
**"What we do differently at The Schools of McKeel Academy is position ourselves to be able to take advantage of advances in educational technology. Having connectivity to do that is critical to our mission."**

- Craig Black, IT Project Manager, The Schools of McKeel Academy

The Schools of McKeel Academy needed to increase bandwidth and enable more robust data transfers at all three campuses. Spectrum Enterprise team members proposed adding dedicated [Dedicated Fiber Internet \(DFI\)](#) circuits to all three schools. Previously, the circuit had been shared by all three campuses via virtual private networking.

In addition, given the acute need for a bandwidth boost at the upper school, consideration was given to raising its internet capacity by as much as tenfold utilizing [ultra-high speed data](#) connectivity.

"They had a need for more bandwidth at all three schools, given their orientation around technology," notes Kristina Bruno, Strategic Account Manager, Spectrum Enterprise. "We examined their budget thoroughly before designing a solution utilizing three Dedicated Fiber Internet circuits, including one with ultra-high speed data capacity. Once they saw what we had put together, they were ready to move forward."



Every student at The Schools of McKeel Academy, from pre-kindergarten on up, gets their own tablet. These tablets are critical to their education, from accessing lesson plans to utilizing cloud applications. All are supported by fiber connectivity from Spectrum Enterprise.

### Unlocking student potential with technology

From the beginning, The Schools of McKeel Academy have cultivated a focus on pursuing academic excellence with technology. “The presence and availability of technology amplifies the good things we are already doing in our classrooms,” Black explains.

Robust use of cloud technology allows teachers and students to access a number of online programs which do not have to be downloaded and installed. These comprise a wide variety of hosted platforms and learning management tools. An online testing application even allows for tracking student progress and catching comprehension gaps.

“All the software our students and teachers use exists in the cloud. So I need Spectrum Enterprise to get us there as quickly and reliably as possible”

– Craig Black, IT Project Manager, The Schools of McKeel Academy

“It’s critical that our classes have access to the internet because that’s where content is being delivered to our students,” Black says. “So it’s good that we can rely on the stability of Spectrum Enterprise connectivity to all our classrooms.”

A recent focus of study at all grade levels has been robotics, which requires reliable connectivity for both WiFi and internet access.

“We have that going on in our upper school, of course, but also at the lower grades,” Black adds. “At the elementary schools, they get introduced to robotics because you can incorporate a lot of different concepts, like computer programming as well as having that physical aspect for learning. It’s really neat to see them bridging that gap from what’s onscreen to something physical.”

### A connection to community

Agreements were signed for installations of new fiber circuits at each of the three Lakeland campuses: the McKeel Academy of Technology, McKeel Academy Central and South McKeel Academy.

Much time was spent on site planning and design so less time would be required on site. Spectrum Enterprise technicians worked on identifying optimal locations for circuit installations, after analyzing the existing infrastructure in close consultation with Black.

“We were able to get the lower schools done before lunchtime the same Monday we started,” notes Jon-Michael DeBona, Sales Engineer, Spectrum Enterprise. “The upper school had the ultra-high speed circuit and so it required more time, but we were able to set it up so it could be switched over after hours with no disruption.”

These installations were scheduled for spring break when the schools were not in session. Testing could then be done around the campuses without interfering with classroom activities.

For Benjamin Adams, Service Delivery Manager, Spectrum Enterprise, making sure the process went smoothly was more than a professional concern. He has four children at McKeel Academy schools.



“The schools hold a special place in my heart,” Adams says. “Connectivity is so important to everything they do there. It’s amazing to see how much my kids are blossoming from their experience as students, watching them do homework from their tablets and seeing how quickly they learn and adapt to change. It’s a great feeling as a parent to be able to do something to make that experience even better.”

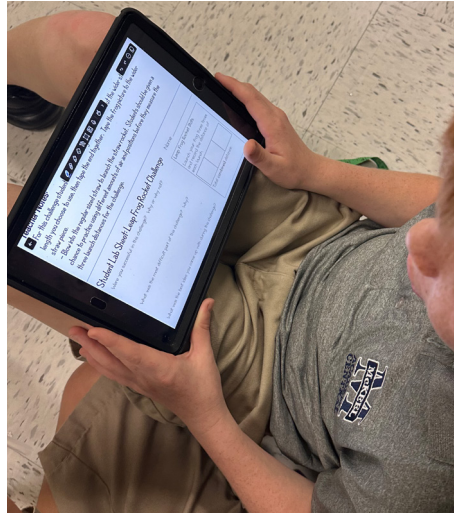
When a service disruption does occur, like a lightning strike at the South McKeel campus or a box truck accidentally dislodging an overhead fiber line at the upper school, repairs happen within hours. “Whenever stuff happens, Spectrum Enterprise has been there every time,” Black notes.

### The benefits of being nimble

Because Black has been part of The Schools of McKeel Academy for many years, he understands how a commitment to growth via technology has come to mean different things.

“I think what I would say sets us apart with our approach to technology is being nimble,” he explains. “We are always willing to move whenever needs change for our students, our teachers and our community. We are always ready to adapt to the next thing as soon as it makes sense for us. We need a partner who is as ready to be flexible as we are, and able to grow with our needs.”

The horizon of possibilities available from expanded bandwidth are wide, Black notes, and include virtual reality and 3D design. More individualized lesson plans require similarly individualized content, which in turn drives the increased demands for dedicated bandwidth. So do state-mandated filtering controls over what student devices receive from the internet.



As The Schools of McKeel Academy prepare their students for the future, they know the capabilities of educational technology will continue to evolve. Spectrum Enterprise engineers and technicians know this, too, and are ready for what lies ahead.

Black estimates his schools' bandwidth demands could increase at a rate of around 40% a year, given past performance. He calls the investment in ultra-high speed data capacity “future-proofing.”

“Our path forward has been iterative from the beginning, and I expect it will continue to be,” Black says. “Having this collaborative relationship with Spectrum Enterprise means we can move forward in big chunks as our content demand continues to grow.”

“Communication with Spectrum Enterprise has been fantastic. During the installation process especially, I always felt included every step of the way in every milestone that mattered.”

– Craig Black, IT Project Manager, The Schools of McKeel Academy

### About Spectrum Enterprise

Spectrum Enterprise, a part of Charter Communications, Inc., is a national provider of scalable, fiber technology solutions serving many of America's largest businesses and communications service providers. The broad Spectrum Enterprise portfolio includes [networking and managed services solutions](#); [Internet access](#), [Ethernet access and networks](#), [Voice](#) and [TV solutions](#). The Spectrum Enterprise team of experts works closely with clients to achieve greater business success by providing solutions designed to meet their evolving needs. For more information, visit [enterprise.spectrum.com](https://enterprise.spectrum.com).

Spectrum Enterprise is a registered trademark of Charter Communications. All other logos, marks, designs, and otherwise are the trademarks and intellectual property of their respective third-party owners. Not all products, pricing and services are available in all areas. Pricing and actual speeds may vary. Restrictions may apply. Subject to change without notice.

©2024 Charter Communications. All Rights Reserved.