



Stark Library taps AT&T technology to

foster learning, spark imaginations,

and help patrons change the world

- **Business needs** - Innovative northeast Ohio library system needed an infrastructure to support patrons and staff in all its locations, and a cost-effective wireless plan for its 200 mobile hotspots.
- **Networking solution** - AT&T Switched Ethernet ServiceSM supports peak bandwidth for library patrons and staff. An unlimited AT&T wireless plan delivers affordable Wi-Fi[®] service for patrons who check out library mobile hotspots.
- **Business value** - Providing unique, useful, cost-effective services to patrons
- **Industry focus** - Public library system
- **Size** - \$15 million budget

About Stark Library

Stark Library is an independent library system in Stark County, Ohio. It's no understatement to say that Stark Library is redefining what a library can be. Staff are committed to making the library a useful, friendly community resource. They have 11 locations and 6 bookmobiles that foster learning, spark imaginations, and help its patrons change their world. Staff have introduced a variety of innovative programs to give customers the best possible experience and make it easy to access things that can make life better.

The situation

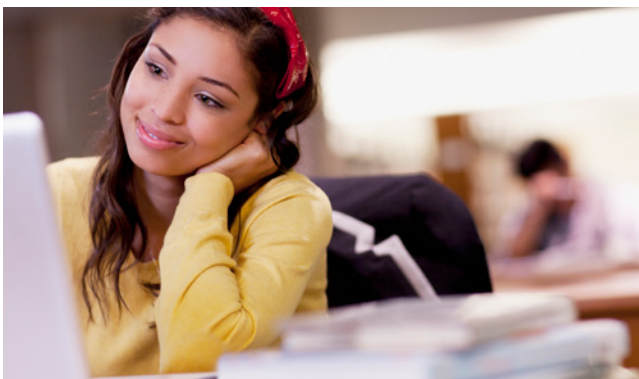
About 40% of Stark County residents have no connectivity at home. The free Wi-Fi offered at each library location is a popular service. The library needed a flexible and cost-effective network infrastructure to deliver the optimal bandwidth for patrons and staff. In addition, it needed to support the mobile hotspots the library lends as part of its Library of Things program. The library's vendor, however, was unable to deliver adequate bandwidth at a reasonable price. Patrons who borrowed the mobile hotspots at the end of the month often found they could not connect to the internet because the devices' data limit had been reached. Stark Library needed an internet provider that offered a truly unlimited plan with all the desired bandwidth.

Solution

AT&T Switched Ethernet ServiceSM service helps deliver peak performance for Wi-Fi connectivity and other vital library applications. The fiber-based service connects each location to the highly secure AT&T core Ethernet network. In addition, AT&T provides an unlimited wireless plan for the 200 advanced mobile hotspot devices, giving patrons free, high-speed internet access almost anywhere.

Innovative technology meets changing needs

Residents of Stark County in Northeast Ohio enjoy the charm of small-town living, but with access to amenities usually found only in larger cities. With a population of about 350,000, the county boasts 5 universities and a technical school. Its county seat is Canton, home to the Pro Football Hall of Fame and the annual Hall of Fame game.



The Stark Library system is one of the assets that draws people to the county. Director of Circulation Greg Burlingame said the public's expectations of the library and the way they use library services have changed dramatically over the years. "These days of

overnight delivery and instant downloads are changing the patterns of use," he said. "Often for patrons, having to wait a couple of weeks for a book or convenient pickup is not ideal. So, we're in an adjustment phase of finding new ways that we can be involved in our customers' lives and meet their needs."

Exceeding expectations

CIO Brad Sayre, who joined the library executive staff two years ago, was impressed that Stark goes far beyond the resources that most libraries provide. It has millions of books, movies, audiobooks, and CDs to lend, but also offers job and technical training, computer education, tax assistance, genealogy help, and free notary services. It even created a makers' studio. The studio is equipped with a 3D printer, poster printer, and embroidery sewing machines for the public to use, along with converters to digitize content from DVDs and slides.

Virtual reality (VR) is also part of the library's services. The technology training department takes VR headsets into schools to provide group technology solutions training. "They get into emerging technologies, which are small consumer electronics, robotics, and a lot of STEM," Sayre said. The team also teaches computer programming elements that enable people to create their own video games.

Communications Director Stephanie Cargill says Stark is committed to delivering much more than people expect from public libraries. "We like to think of ourselves as being on the cutting edge of technology and providing the best patron experience. We want our patrons to access the things that they want and need in their daily lives," she said.

Useful gadgets from the Library of Things

Stark's commitment to making life better for its community includes a unique Library of Things. This popular initiative lets people borrow sophisticated equipment like Kill-O-Watt Electricity Monitors—meters that can help reduce power bills. The library also lends radon detectors, telescopes, digital projectors, and diagnostic code readers to help identify and fix common vehicle problems.

About 40% of the community do not have Wi-Fi in their homes, so the library provides free Wi-Fi in every library location. “People come in just to be able to do the things that they have to do on a daily basis on the internet, whether it’s paying bills or other things they can’t do from home,” Cargill said.

Exceeding expectations is in Stark Library’s DNA. That’s why it began looking to upgrade its network to support highly reliable connectivity for patrons and staff in its various locations.

Connectivity to go

To make internet connectivity available for customers beyond its buildings, the library added mobile hotspots to its Library of Things. The devices, which the library provides at no cost, enable patrons to access the internet from home or any other place at which they need to go online.

The program was an instant hit with patrons. “Some of the mobile Wi-Fi hotspot usage comes from people that are traveling,” Sayre said. “And some use the hotspots at home. Their only access might be a cell phone and maybe they’re on a limited data plan, so they can’t connect to high speed internet at home.”

The library mobile hotspots are in high demand. The library has 200 mobile hotspots in circulation and then another 250 to 300 people waiting in line for the hotspot devices to be returned.



Problems arose, however, with the cellular provider the library chose to deliver the hotspots’ connectivity. “The provider didn’t offer a true unlimited plan,” Sayre said. “Our mobile Wi-Fi hotspots often came back at the data limit so there might be no data available for the next person who borrowed the device.”

The library needed a cellular provider that offered an unlimited plan so every patron could connect to the internet, and one that provided a better way to administer the devices.

Highly reliable and easy to manage

Stark Library chose AT&T Switched Ethernet Service to provide a highly secure and reliable network infrastructure. “We backhaul the internet traffic from each library through the AT&T Ethernet fiber network and then out the internet pipe at our data center,” Sayre said. “The AT&T network is instrumental in providing internet access in the main library and at each branch location.”

Sayre, who worked for years in corporate information technology before becoming the library CIO, was already familiar with AT&T. “The AT&T network is highly reliable and easy to administer,” he said. “The beauty of AT&T is that really you can just set the service in place and not worry about it again.”

Reliability is the most important consideration when it comes to building a network, he said. “AT&T definitely delivers highly reliable service. AT&T eliminates a lot of headaches for my team. This allows us to plan outward, rather than having to maintain an infrastructure and plan internally,” Sayre said. “We can focus on how we’re going to grow and expand.”

Robust, cost-effective connectivity

To choose a wireless provider for its mobile hotspots, Stark Library conducted a trial with 3 cellular companies. With its former provider, some users who traveled beyond Stark County experienced coverage problems.

“In the trial, we put each mobile hotspot on a mobile service route just to see how they would perform throughout the community,” Sayre said. “We sent the

AT&T unit with staff who were going to Las Vegas, Michigan, and Florida so we could just spot-check to make sure that it was working wherever we needed it. Even here in Stark County we have some areas that are difficult to cover, but we seem to run into very few problems with the AT&T device.”

The library also considered the cost, including the need for unlimited data. “That was what really spurred us towards AT&T, which offered us a true unlimited plan that really met the need with low management and low-maintenance administration,” he said.

Portal simplifies administration

AT&T makes it easy for library staff to manage the mobile Wi-Fi hotspots with AT&T Premier Portal. “As we check them out, just like any other materials, we know who has each device, when it was checked out, and when it’s due back,” Sayre said. “If a device is overdue, we go into the AT&T Premier Portal and easily suspend the device until it’s brought back. Then once it’s brought back, we reestablish service on the device and it’s good to go to the next customer.”

The ability to shut down overdue devices has greatly minimized the device loss rate. Suspended devices are of no use to patrons, so most bring them back to avoid being charged the full replacement cost of \$200. “The replacement charge has been a deterrent for patrons keeping or losing the devices,” Sayre said.

Evolving for tomorrow

Burlingame, who has worked at the library since he was 16, marvels at the way it continues to change to meet its customers’ needs. “When I first started, there



was no real internet available,” he said. “There were maybe one or two computer terminals. You’d have to set an appointment with a reference librarian who would walk you through how to use it.”

The library continued to add computers, eventually building computer labs at every branch location so people without computers or an internet connection at home can get online. “Now we’ve advanced beyond that by looking for ways to evolve our collections and initiatives to really fill a need in our community,” Burlingame said.

The advancements have greatly improved the lives of many library customers, Cargill believes. Every day when she arrives at work, she finds people sitting on the library porch using its Wi-Fi. “People also come here to get out of the cold or to use our free tax services,” she said. “Having a career at a place that invests in my community is really the best thing I could wish for.”

As the library continues to innovate for the benefit of its customers, it will count on help from AT&T and its AT&T account reps. “The team that we have is a good one,” Sayre said. Stark Library is working on several new initiatives, so a lot of deadlines are looming. “Being able to manage all of the complexity and keep all of the different plates spinning is a chore sometimes,” he said. “Our AT&T team does a good job.”

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Brad Sayre
Chief Information Officer, Stark Library