

The Roots Grow Deep

CTS has a 100-year heritage.

The telephone company started as a farmers co-op in 1911 to serve their community. In 1949, it was purchased by the Collver family and it has remained privately owned ever since. The owner's mother ran the switch board in her living room back then!

The company has stayed at the forefront of technology installing a 5ESS switch in order to serve as the 2nd MCI Point of Presence (POP) in the United States. Fiber became a major focus early on with CTS installing an early joint fiber ring with AT&T. The investment paid off.

When the telecom act of 1996 allowed companies to compete against each other for local and long distance service, they leveraged their experience and network capacity to become the first CLEC in Southwestern Lower Michigan. They expanded operations aggressively with major operations in Kalamazoo and Battle Creek. The company continues to grow with ADTRAN being a continued trusted partner.

CTS deploys advanced FTTH-based services with ADTRAN's Total Access 5000 platform

That is quite a feat. CTS evolved from a small rural telephone provider to a rapidly growing fiber based service provider with over \$10M in yearly revenue. It now provides advanced services over copper and fiber to residential customers, educational facilities, hospitals and clinics and businesses ranging from small to very large. ADTRAN® has been a trusted partner through much of this transition and was recently selected by CTS to provide the core technology for a major new fiber roll-out, funded in part by a \$2.2M (approximate) stimulus award.

This new project consists of transitioning subscribers in the Climax, Michigan region from copper to Fiber to the Home (FTTH) using the ADTRAN Total Access® 5000 GPON and Active Ethernet solution. When CTS is done with this roll-out, it will be running the most advanced network in southern Michigan. That's a big deal. It allows the region to be highly competitive; it attracts new business and jobs and supports the educational system.

Smart Business, Strong Partnerships

CTS has seen many CLECs and other competitors come and go. From their perspective, most CLECs were stuck with artificially and self imposed small markets by limiting themselves to DSL exclusively. Those CLECs could only reach customers close to the CO with other valuable potential customers being out of reach, especially if they were served by T1s or Remote Terminals. These CLECs made huge capital investments with limited markets and many didn't make it.

Instead of this limited approach, CTS worked with ADTRAN to leverage existing infrastructure such as T1s. Integrated access devices like the ADTRAN TSU 600 were a huge success allowing CTS to reach nearly any customer with competitive voice and data services.

While others were struggling to find customers, CTS was signing up hundreds of customers using T1 and fractional T1 services powered by ADTRAN. CTS also became a large user of the ADTRAN Quad DS1 over Fiber solution, an optical DS2 allowing transport of 4 DS1 over long distances enabling them to reach even more customers. Later, CTS saw significant success by rolling out the Total Access 900 Integrated Access Device to business customers. ADTRAN TDM business clearly had a substantial impact on the success CTS has seen in the marketplace.

ADTRAN also became a trusted partner for the ILEC arm. CTS was an early adopter of the Total Access 5000 using it to deliver telephony and broadband using the combo POTS & ADSL2+ cards in addition to providing T1 services and backhaul.



Being a very early adopter, CTS decided to get into the Fiber to the Premises (FTTP) business several years ago using PON technology from another vendor, before ADTRAN had a solution on the market. It served its purpose allowing CTS to learn about that business but ultimately it became clear that the platform they were using was nearing the end of its lifespan. It was critical for CTS to use the stimulus award very wisely by selecting a more reliable vendor and a platform that would help CTS grow their business for many years.

The Project, The Dream

Although CTS has been successfully serving business customers in Kalamazoo and Battle Creek where much of their revenue came from, it was time to go back to where it all started: Climax, Michigan. The residential access infrastructure used to serve the town was copper based with ADSL2+ as the core last mile technology and CTS wanted to do better.

CTS' vision was to run fiber to each and every subscriber and retire the copper entirely! Not only would this allow CTS to deliver very compelling triple play services but it would also cost less to maintain. To help make this vision a reality, CTS applied for and was awarded a \$4M (approximate) stimulus grant. With this grant and some additional private investments, this dream could become a reality. Climax, Michigan residents and businesses would be running on the most advanced networks available anywhere.

Residential customers would be served using GPON for broadband, telephony and RF Over Glass (RFOG) for the main television service. Customers would also have the choice to receive premium HD channels and Video On Demand (VOD) through the broadband connection. Business customers would be served using Active Ethernet in order to provide dedicated service and guarantee high bandwidth, low delay and very high reliability. The chosen platform would also likely be used to serve business customers in Kalamazoo and Battle Creek to support continued growth and success of the CLEC arm.

The Big Decision

CTS wanted to deal with a company that would listen and work closely with them to deploy leading edge innovative solutions that "just work". That's how they approach their own business and customers and it is also the reason behind their own success. ADTRAN

ADTRAN, Inc.901 Explorer Boulevard
Huntsville, AL 35806P.O. Box 140000
Huntsville, AL 35814-4000256 963-8000
256 963-8699 fax**General Information**800 9ADTRAN
info@adtran.com
www.adtran.com

had proven to be a true partner and now had the leading edge fiber solutions CTS needed. For a service provider to stay at the leading edge of technology, it is extremely important to select the right vendor. In fact, when asked what one of their biggest lessons had been over the years, their answer was: “don’t buy vapor ware”!

After researching products from many vendors, CTS ultimately selected the ADTRAN Total Access 5000. With thousands of systems already in operation and substantial market success in optical, CTS had the confidence this platform would serve them and their customers for many years to come.

They love that the Total Access 5000 platform is equally strong at GPON and Active Ethernet since they need both and deploying that out of the same platform is of substantial benefit. The feature set is very complete and the density extremely competitive. Being able to deploy DSL, T1s and other services out of the same platform is also of tremendous value. It allows them to roll out service very quickly and begin generating revenue rapidly. Furthermore, it minimizes the effort required to train staff and maintain their network. It also means having to maintain less inventory which translates to direct capital savings.

Why ADTRAN: Beyond the Datasheet

There are many other reasons CTS chose ADTRAN and it goes beyond things you can capture in a datasheet. Smart companies don’t just select products—they select partners and selecting a partner requires more than speeds and feeds and a list of features. Partners work together on a common vision and stay together for years—it is a long term relationship that transcends products.

Seeing The Future

CTS has noted that ADTRAN rarely makes the wrong bet and often sees new markets developing before everyone else does. When they back a next generation technology, you know it is going to be big. For example, ADTRAN had been talking to CTS about Carrier Ethernet years before it became the big deal that it is today.

Active Ethernet is another example. Some vendors developed their flagship products using pizza box style form factors thinking GPON would be the only viable FTTH technology. Since Active Ethernet requires a dedicated fiber for each subscriber instead of one fiber for up to 32 customers typical of GPON, those form factors have very poor scalability when wanting to serve hundreds of subscribers. Instead of this approach, ADTRAN developed high density Active Ethernet cards for the Total Access 5000 which supports hundreds of subscribers per chassis. The bet is paying off and is providing value to CTS and their business customers.

Having a partner that has vision gives CTS a great way to stay at the cutting edge while minimizing risks.

Investment Protection Matters

The vendors that CTS had been using for some of their access gear had gone through many business transitions, including acquisitions. They observed the negative impacts this had on product vision, evolution and support and were rightly concerned about betting their future on these vendors.

ADTRAN on the other hand has been profitable each and every quarter since going public in 1994. Furthermore, the traction for the Total Access 5000 in the market place has been phenomenal and growing exponentially ... a perfect time to invest in the platform for their own network.

Flexibility Matters

The fact that the Total Access 5000 can provide anything from GPON to Active Ethernet, DSL, T1 and now optical transport including DWDM had an important bearing on their decision. The extended capabilities reduces support and inventory costs, allows them to turn up customers faster which accelerates revenue and is ultimately simpler.

Conclusion

CTS has an enviable and proud history and an even more enviable and bright future. The company evolved from a small operation with the owners’ mother running the switch in her living room to a fiber based ILEC and CLEC with over \$10M in revenue. CTS’ success is in large part due to a complete focus on a “customer first” mentality.

When it was looking for a partner to help it transition to an all fiber network, it ultimately chose ADTRAN because it saw the same customer focus that had served them so well in the past coupled with flexible, innovative and highly scalable products. ADTRAN has the right product at the right time to help CTS get to the next level.



“ADTRAN provides a very strong value proposition. The products are of very high quality and just work! The pricing is reasonable and the support amazing”

Bob Bender, CTS Telecom

Relationships and Partnerships

Q: “If you were to provide the key reason you chose ADTRAN, what would it be?”

A: “PARTNERSHIP” – Bob Bender, CTS Telecom

Ultimately, this is a success story that is built on long term relationships and partnerships developed over time by delivering advanced rock solid solutions while others sell vapor ware. Customers like CTS know that when ADTRAN comes to the table, they bring leading technology, reliability and customer service that is hard to beat.

When investing millions of dollars on their fiber roll-out, the knowledge that ADTRAN would always be there working closely with them would ultimately be the winning element.

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