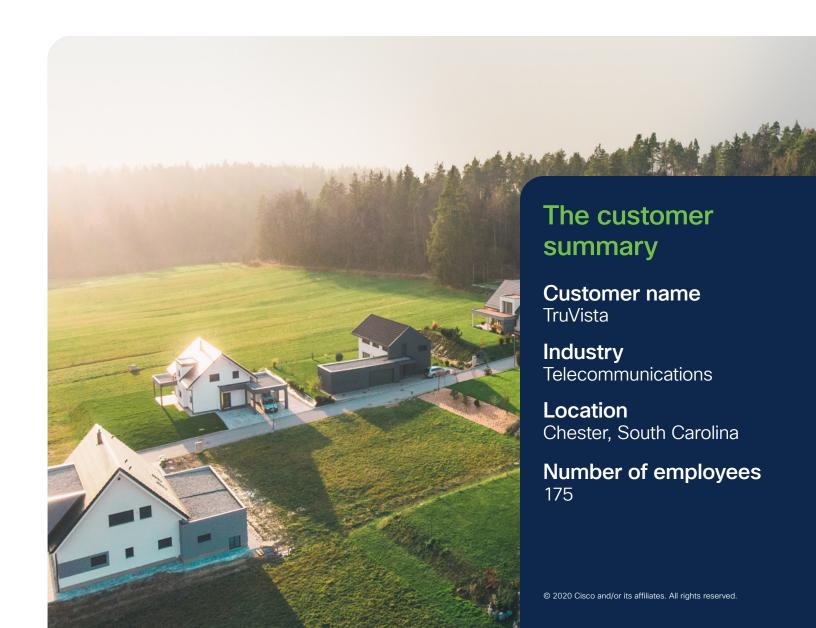‫ı‍ı‍ı‍.‍ı‍ı‍ı‍.‍‬
CISCO

TruVista case study

TruVista Expands Rural Broadband to Unserved Communities

Implements USDA funding and Cisco networking to extend Fiber to the Home for new underserved customers

The customer summary

Customer name
TruVista

Industry
Telecommunications

Location
Chester, South Carolina

Number of employees
175

Business challenge summary

- Cost effectively expand network to deliver broadband services to underserved communities
- Increase backbone capacity to meet growing demand for broadband connectivity
- Deploy a reliable network that offers high quality and low latency broadband services

Network solution summary

- Updated network foundation to support expanded broadband footprint and services to drive usage
- Continued a five-year mission to deploy a Cisco network
- Designed a plug and play network to expand the Fiber to the Home strategy

Business results summary

- Cost-effectively expanding fiber network with USDA funding to reach 1700+ additional subscribers/homes
- Increasing network capacity to deliver improvements in broadband speeds and latency
- Upgrading network while maintaining operational efficiency and reliability

Business challenge

TruVista is a Chester, South Carolina–based telecommunications provider offering Fiber to the Home (FTTH) broadband connections, Digital Subscriber Line (DSL), and Hybrid Fiber-Coaxial (HFC) services to approximately 19,000 residential and 300 business customers. The company was experiencing an expansion of broadband activity from its customers, accentuated by the increase in remote work and education in response to COVID–19, and was looking to further drive broadband usage with high speed connectivity to new rural customers.

Thanks to a $9.1 million United States Department of Agriculture (USDA) ReConnect grant, the company is planning to deploy 257 miles of fiber optic cable to reach unserved rural areas in South Carolina. With an additional $3+ million investment from TruVista as part of the 75/25 percent grant, the fiber will cover 81 square miles which includes households, farms, and businesses along with community, education, and health care facilities.

"If you have a great partner like Cisco and you're talking about pros and cons, you can make intelligent decisions. Since deployment we haven't seen one blip…not one. If you have a good partner up front and choose the correct solutions at scale, it just works."

Sam Fitzgerald
Senior Director of Engineering, TruVista

The difference between rural communities and urban cities is customer density. As a result, it's much more expensive to run fiber down long stretches of road to reach remote customers. The USDA ReConnect grant is a key factor in supporting the business case to extend TruVista's fiber network to reach unserved areas. Once the fiber runs are completed, TruVista intends to deliver broadband connections to its customers in the same way they receive other services like electricity and water, where you turn it on, and it just works. TruVista wanted a solution that was ubiquitous, simple, and above all secure.

The company spent the past five years converting to a Cisco network and wanted to leverage their existing infrastructure that they were already familiar with. It was important for TruVista's operational support personnel in the Network Operations Center (NOC) to be comfortable with the new devices and not have to learn and manage a variety of hardware and software combinations from different vendors. This approach would reduce cost and complexity and help TruVista deploy an expanded network it could rely on.

Network solution

TruVista needed to upgrade their core network to accommodate thousands of new users and growing broadband traffic demands, as well as offer new high-speed Internet services to support demanding applications such as video streaming and gaming requiring very low latency and more upstream bandwidth. They also wanted to continue deploying infrastructure from Cisco which would allow them to expand capacity, increase speeds, and broaden functionality. The goal was to reduce the cost to expand their FTTH footprint, gain new customers, and drive usage of broadband services. TruVista wanted the ability to "plug in this device here and it just works," and they felt Cisco solutions had proven themselves as uniquely qualified to achieve that.

After such a large investment in fiber, the company needed to expand its access and distribution infrastructure to handle the increased bandwidth necessary to deliver high quality broadband services to its customers. TruVista's engineering strategy is to build highly scalable infrastructure that will expand well into the future, and they wanted the ability to add more

capacity in the coming years. As they first embarked on a five year journey to build out a Cisco network they began with a 10G core, then added multiple 10G cores, and then decided to jump to 100G. TruVista worked with Cisco to prepare for the project by expanding its network to 100G over the Cisco Aggregated Services Router (ASR) 9000 and Network Convergence System (NCS) 5500 platforms.

A major advantage of the Cisco end-to-end architecture is its scalability, with optics, line cards, and other plug-and-play ready network devices. Performance, throughput, functionality, and reliability were important factors that TruVista took into consideration. They wanted to offer symmetric bandwidth, with gamers driving a large part of that need. With more people working from home, studying, and using the Internet at all hours of the day and night, TruVista realized that consumer demands in their markets increasingly resemble businesses in their bandwidth requirements for greater speeds, upstream capacity, and low latency.

TruVista is also looking to build on its community partnerships to expand broadband access and usage. The company has engaged in public-private partnerships to leverage federal funding and build on its reputation for working within the community at all levels. This has provided the opportunity to engage school systems for expanding remote learning, and chambers of commerce to expand remote work. All of this enables TruVista to continue fulfilling its mission of "connecting what matters.

Business results

TruVista doesn't believe in the idea of "build it and they will come". Their technology group works hand in hand with marketing and sales to ensure they address specific needs in the marketplace, and they employ that strategy when expanding into new areas. To accomplish this, they study bandwidth usage rates in surrounding communities to gauge what their customers will need both now and in the future. This enables TruVista to drive innovation into its customer base in order to deliver the connected entertainment, education, and business opportunities to their customers.

With USDA Reconnect funding, TruVista will be able to reach an additional 1700+ subscriber homes and

businesses with only 25 percent of the cost, enabling the company to deliver broadband connectivity to unserved rural areas in South Carolina.

TruVista's ongoing deployment of Cisco's high performance and scalable routing platforms enables the company to expand its capacity while protecting existing investment in infrastructure and operations. This helps TruVista ensure reliability of network performance and operations, while reducing the complexity to manage its growing network footprint.

TruVista is now deploying a secure, best-in-class IP transport network. This allows them to gain new customers and give their existing ones improved broadband access and faster speeds to utilize new services.

Learn more

Explore our rural broadband network solutions

Products and Technology

- ASR 9000 series
- 100G/200G transceiver modules
- NCS 5500 series
- NCS 55A2
- IOS XR