

CommScope helps Thomasville CNS achieve a more reliable outside cable plant

Customer

Thomasville CNS

Country

United States of America

Challenges

The need to upgrade and replace 8,000 components on its outside plant, the expansion of available bandwidth from 750 MHz to 1 GHz, and the deployment of two Internet gateway routers.

CommScope solution

CommScope's intelligent addressable taps replaced a flawed legacy product, improved service delivery and optimized its technical operations.



“We probably spent 70 percent of our time keeping the interdiction system running. All we could do was react. This was a huge problem. The CommScope addressable taps were solid and much more cost effective than the legacy product. As a result of installing them, we have achieved a more robust and reliable outside cable plant.”

—Randy Eubanks, Technical Operations Manager, Thomasville Utilities

A weak link on the subscriber drop had long plagued a municipality-run cable operator, Thomasville Community Network Services (CNS). The municipality began replacing a defective interdiction system with CommScope's RF Connectivity intelligent addressable taps in 2010 and completed the deployment over the next two years.

As a result, Thomasville solved a long-standing problem, improved the reliability and capacity of its outside plant and freed up its tech ops team to tackle a range of other projects.

Provide greater voice, video and data to over 10,000 customers

Like most municipalities, the City of Thomasville, in Thomasville Georgia, provides basic services to area residents. The city also provides voice, video and data through CNS, a cooperative venture with five other southwest Georgia communities. A department of the City of Thomasville Utilities, the Thomasville CNS cable network passes 16,000 homes and serves 10,000 customers.

The history of this project goes back to 1995, when the city began building a fiber-optic network to serve local schools, libraries, businesses and hospitals in an effort that became known as the CNS. In 1997, the Cities of Cairo, Camilla, Moultrie and Thomasville formed a development authority to expand these services.

“Rural Georgia has been bypassed by technology for a long time,” said Tom Berry, city manager, City of Thomasville, in May 1997. “If we want economic development to occur here, we have to make sure the technology those businesses need is available.”

The CNS also aimed to raise the bar on consumer services. In 1998, it authorized the design of a hybrid fiber coaxial (HFC) cable plant and completed construction in 1999—overbuilding incumbent providers and enabling the delivery of analog cable television and high-speed Internet (via Rose.Net). In 2001, CNS launched digital cable and, in 2007, began delivering telephony services over its plant. The latest major upgrade cycle officially began in 2011 when CNS announced the replacement of 8,000 components on its outside plant, the expansion of available bandwidth from 750 MHz to 1 GHz and the deployment of two Internet gateway routers.



CommScope's Addressable Tap Solution

Preparation for this upgrade had actually begun in 2010 when CNS technical managers made plans to correct a shortcoming of the HFC plant. The original design called for an addressable tap—the device at the subscriber drop that keeps scrambled channels from passing and allows an operator to turn on/turn off services remotely.

The problem was not so much the need for an addressable tap as it was the product deployed—in this case, a video mask interdiction unit (VMIU) from another vendor.

“The interdiction (unit) was never a great product from the get-go,” said Randy Eubanks, technical operations manager, Thomasville Utilities. “It was basically falling apart.”

The product had several flaws. Eubanks listed poor workmanship on the circuit boards and faulty solder joints that leaked water and caused signal impairments. It also was designed without digital video in mind.

“When we installed it, we did not have a digital lineup,” he said. “While the tap was efficient when it did work, the accumulation of defects impacted both customer service and the CMS technical operations team. We probably spent 70 percent of our time keeping the interdiction system running. All we could do was react. This was a huge problem.”

Implementing a 16 GHz upgrade

As the Thomasville CNS team began planning its 1 GHz upgrade, procuring a better performing addressable tap became a priority.

“The legacy product had become very unreliable and extremely labor intensive to keep it in operation,” Eubanks said.

Apart from reliability and full 1 GHz performance, CNS also required a certain level of compatibility with the existing taps. “We needed the ability to mix products that were similar, to be compatible with our billing so we could go ahead and start changing out faulty interdiction units,” he said.

In looking for a suitable replacement product, Eubanks said Thomasville Utilities found one; however, they discovered it had been discontinued. Then their supplier of coaxial, hardline, drop and fiber optical cable, CommScope, connected them with the RF Connectivity line of subscriber drop products it had acquired in 2007. CNS turned to CommScope’s four- and eight-port intelligent addressable taps and associated frequency shift keying (FSK)-based gateway and began a slow rollout in 2010.

Thomasville accelerated the deployment in 2011 and put the “finishing touches” on the project in March 2012. The solution has proved a good fit.

“The CommScope addressable taps were solid and much more cost effective than the legacy product,” Eubanks said. “As a result of installing them, we have achieved a more robust and reliable outside cable plant.”

Another benefit has been freeing up the Thomasville CNS team of about 12 technicians for a wider range and higher volume of work. Eubanks said CNS, in contrast to the incumbent cable operator, has always prided itself on same-day service calls. The improved reliability has allowed them to move from responding to repetitive problems to tackling other challenges.

As for future plans, Eubanks said he hopes to expand the coverage area of the new taps to include the Cairo, Camilla and Moultrie systems on new build areas, but that decision depends upon separate budgeting. For now, the CommScope’s intelligent addressable tap has enabled the Thomasville CNS to solve a festering problem, improve the reliability and capacity of its outside plant, and shift into a more proactive mode of superior services delivery.

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