

Overview

Hybrid Fiber Coaxial (HFC) plant provides the data speeds demanded today, competing with all-fiber networks, when expertly upgraded and maintained. Reduce capital spending by avoiding costly construction. Reduce operational spending by reducing cascades and noise. Reduce time to performance with turnkey services from AMT!

The Challenge

Does your HFC plant deliver today's competitive high-speed data needs? What upgrades are needed, and in what order? What are compatibilities? How is it done? Is your in-house workforce available? Are they capable?



The Solution

AMT helps our customers leap-frog competition, where services of 300 MB or above are possible on existing HFC infrastructure. Starting with a system survey, AMT engineering maps out a plan to:

- Upgrade CMTS expanding service groups
- Upgrade DOCSIS to 3.1 increasing available bandwidth
- Upgrade nodes and amplifiers expanding plant capacity to 1.2 GHz
- Implement mid-split 5-85 increasing upstream bandwidth
- Optimize nodes and balance actives improving plant performance (MER)
- Sweep plant and find noise, fixing bad spans and splices, further improving plant performance (SNR)

AMT will specify and procure all needed product and materials, which AMT Professional Services will deploy.

The coaxial cable infrastructure in your plant is very capable of high data speeds when this strategy is expertly accomplished. 300 MB service plus is no longer exclusive to an all-fiber plant! Your HFC plant can be made fully capable today.

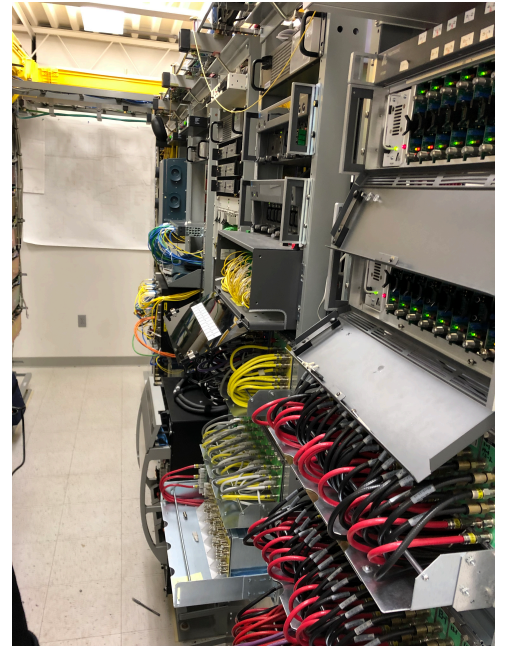
HFC Plant Upgrade

S&T Communications

S&T Communications

In 2020, S&T Communications teamed up with AMT to upgrade their HFC infrastructure in two served markets: Colby and Goodland, Kansas. They had competition in these markets and needed help to accomplish the upgrade projects, which exceeded their in-house staff's capacity. Each system includes over 50 miles of coaxial plant and over 1,000 high speed data subscribers. The project scope upgrading plant capacity from 870 MHz to 1.2 GHz, and increasing available bandwidth which required:

- Replacing nodes and upgrading amplifiers
- Changing the US/DS split to a mid-split 5-85
- Swapping power supplies with remote status monitoring
- Upgrading optics allowing more service groups
- Upgrading to DOCSIS 3.1
- Optimizing nodes
- Balancing amplifiers
- Sweeping plant
- Identifying noise
- Repairing problems found



The Result

A network capable of more spectrum, to 1.2 GHz, MER over 42, DOCSIS 3.1 for high modulation schemes, properly set actives, and lowered SNR. These changes contributed to improved service to subscribers offering now 50, 200 and 300 MBS downstream speeds. AMT delivered a turnkey service, providing all parts and labor to get the job done on-time and under-budget.

"With our staffing levels, we could not dedicate people to this project. AMT was vital to our rebuild. We have found AMT to be extremely professional in the execution of service as well as responsive to any concerns that we had. We have found consistent and regular staff availability making AMT to be considered as part of the team. Luckily we had this in play when lock down hit. We were able to respond to our customers rapidly and increase their bandwidth. We have many more customers at 100 MB now than below."

Jeff Jay, S&T Communications, Network Operations

About S&T Communications

S&T Telephone Coop Association is the product of the vision of a group of farmers who were interested in a better system for rural people. Providing modern telephone service to rural northwest Kansas was the driving force of those who worked so hard at making the telephone cooperative a reality. However, in the early 1990's the S&T Board of Directors discovered that many of the S&T members were being poorly served by their cable TV providers. The Cable TV systems in Kanorado, Winona, Grinnell and Healy were purchased in 1995, with the service to Dighton following later. This was the first big step towards offering non-regulated services.

About AMT

Advanced Media Technologies, Inc. (AMT) is the performance leader among CATV and High-End Broadband Electronic Equipment Providers. As a value-added reseller of high-performance products from numerous well-known manufacturers globally, AMT targets emerging technology applications in broadband with a complete line of RF and fiber distribution, video, data, OTT, IPTV, and HDTV products. In addition, AMT Services provides expert in-house technical support, including: system design, digital headends, CMTS deployment, outside plant: node segmentation and optimization, retro upgrade, splicing, sweep and noise mitigation, inside plant: rack, stack and wire, DOCSIS 3.1 performance assessment.

To learn more about AMT Professional Services please visit:

<https://web.goamt.com/professional-services/>