Expanding Fiber Into MDUs Without Rewiring

How Stowe Communications Delivered Gigabit Speeds Over Existing Coax with ZCorum Support

Case Study

For many broadband providers, the transition to fiber is straightforward. That is until it reaches multi-dwelling units (MDUs) with legacy wiring. For Stowe Communications, existing coax infrastructure inside these buildings created a barrier to delivering fiber speeds without costly rewiring.

CUSTOMER OVERVIEW

Stowe Communications is a local, independent broadband provider serving a dense area with a mix of residential and multi-dwelling properties in Stowe, Vermont. For over 40 years, the company has evolved from a modest community antenna television system into a full service telecommunications provider.

Like many providers, they have been actively working to transition their network from coax to fiber, upgrading infrastructure to meet growing demand for higher speeds and more reliable connectivity. They now boast a 270-mile fiber optic network that reaches deep into the heart of Vermont's rural communities.

THE CHALLENGE

Reaching MDUs with Legacy Coax

While Stowe Communications has been steadily expanding fiber to area homes, the multi-dwelling units (MDUs) presented a unique challenge. Many of these buildings were built with coax cabling, making it difficult and expensive to run new fiber to each individual unit.

In most cases, this meant delaying any fiber upgrades to the MDUs. Without a practical way to extend fiber service into these buildings, moving away from coax wasn't feasible. So buildings were left behind as the rest of the network evolved.

Stowe needed a way to deliver gigabit service inside these MDUs without the cost, disruption, and time required to rewire entire buildings.

AT A GLANCE

Stowe Communications needed a way to deliver fiber speeds in MDUs built with legacy coax, without the cost and disruption of rewiring the building.

Using G.hn technology over existing coax, they extended fiber service quickly and efficiently to each unit. The result is a solution that reduces deployment time, minimizes disruption, and enables gigabit capable service using the existing infrastructure.

"It's worked perfect for us. It's exactly what we were looking for."

Shane Lafountain
Fiber Project Specialist
Stowe Communications

THE SOLUTION

Fiber to the Building with G.hn Over Coax

To overcome this challenge, Stowe Communications deployed a G.hn (Gigabit Home Networking) solution purchased from ZCorum. G.hn technology allows service providers to deliver gigabit service to MDUs over existing coax cable or phone lines.

Fiber was run directly to each building and extended to communication closets within the property. From there, a G.hn access controller was installed to distribute service over the existing coax lines to each unit. A G.hn endpoint was plugged into the existing coax wall plate in each apartment to be served, and an Ethernet cable was connected from the endpoint directly to the customer's PC or to their router. This approach eliminated the need for extensive rewiring while enabling Stowe to deliver significantly improved performance to their customers.

Fast Deployment and Minimal Disruption

Once deployed, the solution proved quick to implement. In one building with approximately 30 to 40 units, installation and activation were completed in just a few days. After the initial setup, units were connected efficiently with minimal disruption to residents. Because Stowe was already serving most of the residents with cable modem service, the transition was straightforward, allowing them to quickly and easily upgrade existing customers without any rewiring or major changes to the physical infrastructure. When they get a new subscriber, they can be connected by simply plugging a G.hn endpoint into the existing coax.

THE RESULTS

Improved Performance and Customer Experience

Before the G.hn upgrades, residents in these buildings received cable modem service over the existing coax, with maximum download speeds of around 250 Mbps and significantly lower upload speeds.

Following the deployment, that changed significantly. Stowe Communications now delivers speeds up to 1 Gbps, along with symmetrical upload and download performance. While not all customers chose to upgrade their speed tiers, many still benefited from improved upload performance and overall network responsiveness. Equally important, there have been no customer issues reported with the G.hn connection after deployment.

Expanding Opportunities for Fiber Growth

By adopting this approach, Stowe Communications can now extend gigabit service into buildings that were previously difficult or impractical to upgrade. This not only accelerates their fiber expansion strategy but also allows them to make better use of existing infrastructure. With additional buildings already planned for deployment, Stowe is continuing to use this model to reach more MDUs efficiently, without the cost and complexity of full rewiring projects.

THE BOTTOM LINE

By deploying G.hn over the existing coax, Stowe Communications easily extended gigabit broadband service into MDUs without rewiring, reducing costs and deployment time, while minimizing disruption. With support from ZCorum, they now have a scalable and efficient path to expand their fiber services and reach more subscribers using the infrastructure already in place.

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