



“That Building’s Wiring Closet is a Rat’s Nest!”

Fiber Optic Networking Device for Multiple Dwelling Units

An innovative, low-cost Multiple Dwelling Unit Fiber-to-the-Home design by Egret Technologies helped a major optical and coaxial products manufacturer break into a new profitable market.

Situation: Fiber-to-the-Premises (FTTP) networks for apartments, condominiums and townhouses require special, complex features to support the fiber cable interconnection to the onsite terminal equipment. Multiple Dwelling Unit (MDU) technologies, which help deliver service to each residential unit within a building, are an attractive option to greatly reduce the total cost of providing subscriber service access.

Broadband Infrastructure products for MDU’s are complex to design. They must:

- Accommodate the wide diversity of structures and conditions found throughout the country, including whether the building is new or under renovation
- Support multiple subscribers and frequent service changes (switch on/switch off) due to the turnover in residential occupancy
- Address critical electrical efficiencies to consolidate and conserve power use
- Include compact, protective and secure housing that prevents occupants from obtaining free service and from acts of vandalism

- Enhance field service technicians’ ease-of-use and access to diagnostic and maintenance features

When a major optical and coaxial cable products manufacturer wanted to create their next-generation MDU, they turned to Egret Technologies for its proven expertise in the communications industry. The manufacturer shared its aggressive cost and performance goals, and requested Egret Technologies further define, develop and produce a prototype that could demonstrate its new concept to customers.



Solution: Egret Technologies consolidated the design requirements and prepared a modular, scalable concept that would give the customer unsurpassed flexibility with its subscribers.

The initial design was previewed at a major trade event and received rave reviews from field service and operations personnel for its innovative features. Highlights of the new design included:

- A cost-saving common power source
- Convenient exterior access for field technicians to adjust subscriber usage
- Support of multiple network interface units and the related diagnostic LED's
- Upgradeable options to handle 4X as many subscribers

- Lightweight all-inclusive kit design for ease of installation by service technicians

“Turning Innovation into Profit” Results: Along with the breakthrough design, Egret Technologies’ product cost came in at 50% of the manufacturer’s target. This greatly improved the business case for moving forward with product while providing significant competitive and marketing advantage for its launch. According to a field operations executive, “You have a direct hit on this application. We have the least expensive combination of functionality, ease of installation, and maintainability. We can dispatch one service tech where we used to send two – and get the job done faster.”

Egret Technologies is a superior electronic design partner to global vendors of technology products. We are an innovative, solution-driven, US-based engineering design firm specializing in optical, electronic, and mechanical hardware, as well as embedded software systems. We provide concept development, product design and project engineering. Contact Egret Technologies at (954) 518-9645 or innovate@EgretTechnologies.com