

# Long Lines Broadband Experiences Faster Fiber-Fed Deployments Using Plug-and-Play, Integrated Slack Storage Solution from Clearfield®

## Background

Long Lines' extensive fiber optic network serves customers with cable TV, high-speed internet and phone service.

*"Our deployment was done better and faster than we ever thought possible with Clearfield's plug-and-play, integrated slack storage solution. The hands-on training and customer support from Clearfield is excellent from start to finish. Their help was invaluable through the whole process."*  
— Ron Crane, Director of Technical Operations, Long Lines

## Deployment Drivers

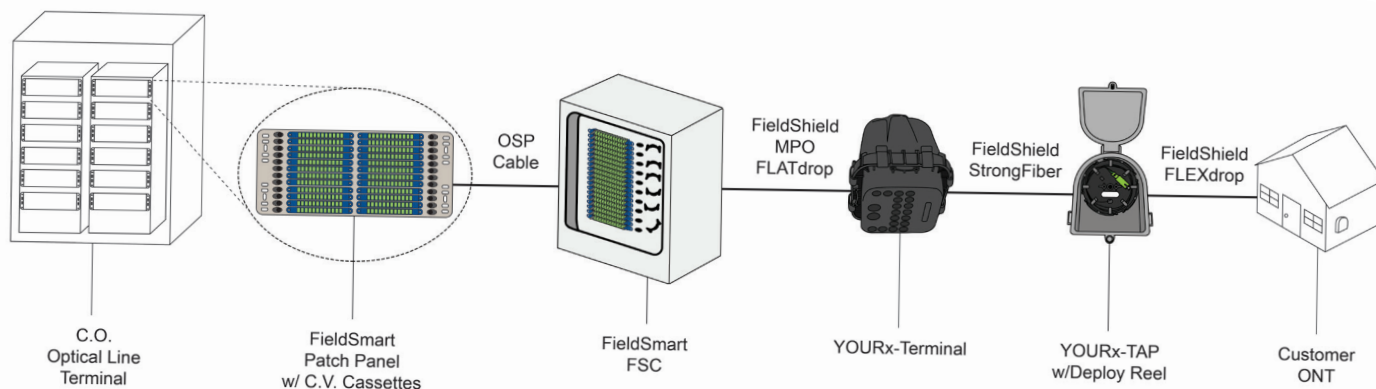
Long Lines undertook an aggressive fiber-to-the-home (FTTH) project. The key elements that represented the cost-effective guiding principles for their deployment project included: 1) reducing construction labor costs, 2) reducing the cost of providing the final customer drop and 3) expediting the installation process to deliver services to the customer faster.

## Solution

To meet their efficiency goals for deploying a cost-effective FTTH network, Long Lines deployed a complete end-to-end Clearfield® fiber product platform that extends from inside plant (ISP) to the outside plant (OSP) to the final customer connection. FieldSmart® fiber patch panels were placed in the inside plant. FieldSmart Fiber Scalability Center (FSC) PON Cabinets with WaveSmart® Ruggedized Splitters were placed in the outside plant. Finally, FieldShield® drop cable assemblies and the YOURx™ platform products provided the final customer connection. Clearfield's pre-connectorized FieldShield drop solutions cut down splicing during service installations – a key to achieving the project goals of reducing costs and speeding deployments.

Long Lines utilized Clearfield's fiber patch panels in the Central Office environment to feed Clearfield FSC PON Cabinets in the OSP. From the cabinet, pre-connectorized FieldShield FLATdrop MPO pigtailed were deployed into the YOURx-Terminals and the terminals placed inside pedestals located throughout the neighborhood.

To prepare for the final drop connection from the pedestal to the home, the Long Lines team used durable, crush-resistant 10/6mm FieldShield Direct Bury Microduct, which provided fiber protection and a repairable, upgradeable pathway.



*Clearfield provided Long Lines with an end-to-end fiber connectivity solution... from the OLT to the ONT.*

The Clearfield YOURx-TAP equipped with a FieldShield StrongFiber Deploy Reel served as the demarcation point on the side of the house with fiber connection back to the OSP terminal. During customer turn-up, a technician pulled the desired amount of StrongFiber off the reel (through the microduct) to the terminal and the unused portion of cable remained stored on the reel for an integrated slack storage solution. At the terminal, an easy-to-install, snap-on connector housing eliminated splicing and completed the termination process providing simple plug-and-play connectivity. Residents appreciated the small size of the YOURx-TAP because it eliminated the need for a large, unsightly box on the side of a home to store excess fiber. The YOURx-TAP also provided the final drop point in a completely protected fiber pathway.



*FieldSmart 144-port cabinet and YOURx-TAP.*

The end-to-end solution was turned up at the customer by simply plugging a FieldShield FLEXdrop™ assembly into the bulkhead adapter located inside the YOURx-TAP so that the customer inside the home could connect to the indoor ONT.

“Our deployment was done better and faster with Clearfield’s plug-and-play, integrated slack storage solution than we ever thought possible,” says Ron Crane, Director of Technical Operations, Long Lines. “Clearfield’s hands-on training and customer support is excellent from start to finish. Their help was invaluable through the whole process.”

## Results

Clearfield sent people on location to walk contractors through the process. “It’s much easier when contractors can see for themselves how to use the product,” says Crane. “Clearfield’s hands-on training and customer support really sped up our fiber deployments. The more the contractors worked with the Clearfield solution, the faster they deployed.”

“The single biggest value of the Clearfield solution is the ease of performing customer installations after the FTTH network is in place,” says Crane. “Customers don’t want gaudy, intrusive telecommunications equipment. For example, because of Clearfield’s sleek design, we didn’t have to drill big holes in the side of the house – that’s a huge advantage for low-cost building entry in fiber to the home.”

## About Long Lines

*Founded in 1941, Long Lines is a telecommunications company offering business and residential services in northwest Iowa, northeast Nebraska and southeast South Dakota. Our extensive fiber optic network provides exceptional service to major corporations with connections to major hubs throughout the country. Visit <http://www.longlines.com> to learn more.*

## About Clearfield, Inc.

*Clearfield, Inc. (NASDAQ: CLFD) designs, manufactures and distributes fiber optic management, protection and delivery products for communications networks. Our “fiber to anywhere” platform serves the unique requirements of leading incumbent local exchange carriers (traditional carriers), competitive local exchange carriers (alternative carriers), and MSO/cable TV companies, while also catering to the broadband needs of the utility/municipality, enterprise, data center and military markets.*