



# **Four Steps to Convert “Fiber to the Press Release” into “Fiber to Reality”**

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The need for speed has never been more apparent than it is in today's "always-on" society. Consumer and businesses alike are continually increasing their reliance on data centered devices. It's a gigabit broadband world, and people are putting unprecedented strains on the current infrastructure.

Service providers that don't offer ultra-high speed broadband connections are finding themselves on the losing end in a highly competitive marketplace. This marketplace no longer includes just the traditional service provider and the local cable company duking it out with pricing plans and promises of incremental bandwidth increases and service tiers. Other companies are entering the fray, announcing gigabit broadband services to the bandwidth-starved masses.

The customer—and the competition—has spoken. Gigabit broadband is no longer a nice to have, it's now a competitive necessity. Providers must deploy gigabit fiber or risk being cut out of the competitive picture altogether.

Yet, the many announcements regarding gigabit broadband deployments have jokingly been referred to as "Fiber to the Press Release," as there has been more media attention placed on gigabit fiber than actual deployments. The challenge is that traditional methods used to build fiber networks to the home, to the curb, to the multi-dwelling units (MDUs) and to the business—to anywhere (also called Fiber to the X, or FTTX)—are still expensive and highly labor intensive, using not only specialized technologies, but also specialized labor. To convert fiber to the press release, into a reality, labor-light technologies will need to be used to reduce the amount of labor and the skill level required.

### **Labor-lite Technology Offers an Alternative**

Many service providers simply don't have the resources—financial, personnel or otherwise—to make gigabit broadband a reality for their subscribers. Enter labor-lite technology, which is breathing new life into providers' gigabit broadband dreams. Labor lite technology is exactly what the name implies, a series of products that significantly simplify installation and reduce the amount of labor it takes to install FTTX connections. When labor is reduced, so are cost and time to market.

Let's take a look at four reasons successful gigabit fiber deployments will depend on labor lite technology:

**Reason 1: Reduced Costs.** When it comes to deploying fiber networks, there's a lot of specialized labor involved. For example, traditional splicing methods used to build FTTX networks are labor intensive, with labor accounting for roughly 70 percent of capex costs. Labor lite technology dramatically lowers these high labor costs by reducing the need for extensive pre-engineering and simplifying and speeding fiber installations and maintenance through plug-and-play components, pushable fiber cable and pre-terminated, field-assembled (not spliced) connectors.

When “connectorization” replaces splicing, a significant piece of the cost factor is removed from the process. Valuable skilled labor now can be reserved for the most specialized aspects of the deployment process, and, as a result, the cost to deploy a FTTX network is reduced. This enables service providers to achieve proper economics to make gigabit fiber deployments a reality.

Pre-connectorized drop cable technology isn’t a new concept. However, the traditional use of flat drop cable minimizes the benefit of the pre-connectorized end. Because the flat-drop cable is stiff and difficult to slack store, extensive pre-engineering must be done to ensure proper lengths are ordered. If both ends are connectorized, often longer than required lengths are ordered to mitigate the risk of a cable that is too short. The result is often a large vault for slack storage, which not only adds labor, but increases the cost for the vault itself. Some installations have sought to mitigate the slack storage issue but connectorizing only one end, but then the time and cost of splicing is reintroduced on the other end, slicing the potential savings in half.

Pushable fiber cable, using pre-terminated single fiber pushable and multi-fiber MPO pushable connectors, saves time and money by delivering as many fibers as needed with a single plug-and-play cable. These small, rugged, yet flexible, connectorized deployment products also simplify fiber installation and maintenance. The exceptional pliability, when used with or without small diameter microduct, eliminates the need for splicing on both ends and without the need for extensive slack storage.

**Reason 2: Reduced Time to Activation.** One of the barriers service providers face is long activation times, often caused by a shortage of skilled labor required for these specialized fiber drops and subsequent slicing. Labor lite technology utilizes plug-and-play, pre-terminated, pre-tested assemblies that do not require splicing or specialized labor. Additionally, the added truck roll in charge of splicing that further delays service activation is removed from the process. Instead of waiting a week or more to deliver service to a home, business or MDU, services can be extended quickly, oftentimes in days. A process that took three or more truck rolls is reduced to one, creating faster activation times and lower activation costs.

Using the pre-terminated microduct system along with factory preloaded plug and play multi-port distribution terminals, you also reduce time to activation by fully laying out the backbone of the main network and then connecting the pre-terminated drops as the need to turn up a customer arises - with the added benefit of reducing the initial cost upfront and saving time, and therefore money, when it’s time to add a new customer.

**Reason 3: Improved Service Reliability.** With a simplified deployment process that includes preconfigured, plug-and-play components, there are fewer opportunities for errors. This leads to a higher level of service throughout the deployment and activation phases but also throughout the customer lifecycle. If an issue does arise at any time in the customer lifecycle, repairs can be made quickly with plug-and-play components, using non-specialized labor.

A great example of a simplified deployment process is found in reduced truck rolls when restoring a network with a microduct and pushable fiber solution. A traditional installation requires one truck to determine the trouble, one truck to locate the flat drop cable, one truck to plow in new flat drop cable in and one truck to do the splicing. That's 4 truck rolls! With a microduct/pushable fiber solution, you have ONE truck roll – the one truck can locate the trouble spot, repair the duct with a sealed coupler, pull out the severed fiber and push a new one through.....snap on the connector and plug in the customer.

**Reason 4: Maximized Subscriber Revenue.** The plug-and-play modular and scalable architecture of labor lite technology enables service providers to quickly add subscriber services by deploying additional ports as needed, using existing equipment, without significant additional capex. The increased revenue providers generate from advanced services is real profit, not a subsidy of the next installation.

Labor lite technology simplifies fiber installations and maintenance, allowing providers to reduce costs and turn up subscribers more quickly. As consumer and business customers continue to demand more and more bandwidth to power their broadband-hungry applications and services, labor lite technology is emerging as a beacon of hope for services providers that need to deploy gigabit fiber to stay competitive.

#### *ABOUT THE AUTHOR*

*Matt Brigham is a Clearfield Product Manager. Matt has 20 years in the fiber industry with specific knowledge of fiber termination processes, optical component integration and rugged microduct.*