

THE INVISILIGHT® SOLUTION FOR ENTERPRISE AND BROADBAND FIBER DEVELOPMENT

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One of the fastest growing areas in enterprise network deployments is fiber to the desk (FTTD) or work area using Passive Optical Local Area Network (POL) technology. Fiber to the desk or office was once considered an expensive option, but has become a cost-effective alternative for many building cabling systems using POL. The InvisiLight® Solution from OFS is a breakthrough system that can enable faster, easier, and virtually invisible POL fiber deployment compared to conventional systems.

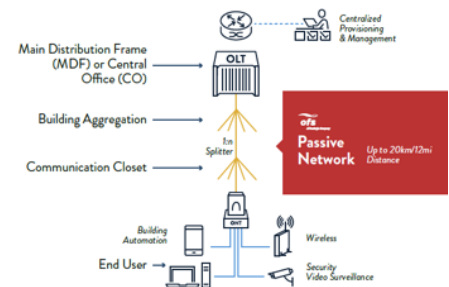
The Gigabit Passive Optical Network (GPON) technology that is used in high volumes for carrier-based fiber to the premise and MDU systems has migrated into buildings to support local area networks. With the distance limitations of copper based infrastructure, the need for wire closets and powered active equipment on every floor, and crowded pathways, facilities and network designers are considering POL to reduce overall costs and space required for the building LAN system.

One of the challenges to installing fiber in buildings, especially in existing office buildings is how to run fiber from the MDF/building entrance to the office. Cabling an existing structure may pose significant challenges: Creating pathways by fishing optical fiber through the walls or building new duct or molding systems can be difficult and expensive.

OFS (www.ofsoptics.com), one of the world's largest optical fiber and optical cabling manufacturers, has developed a revolutionary system for surface mounting fiber in the building to dramatically reduce pathway creation costs. The InvisiLight Solution (www.ofsoptics.com/invisilight-products/) consists of tiny fiber cords attached with an invisible adhesive and is unnoticeable to the eye. Utilizing OFS' EZ-Bend® single mode 2.5 mm bend radius fiber it has been installed in high volumes in MDUs for almost ten years in multiple tier 1 service provider networks across North America. The InvisiLight Solution has become the go-to solution for low visibility single-mode fiber deployment inside residential buildings. This same InvisiLight solution can also be used to facilitate faster and virtually invisible fiber deployment in the enterprise/office environment.

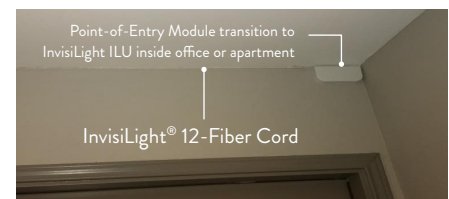
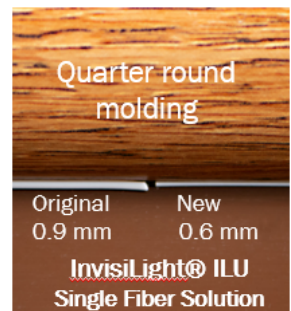
The InvisiLight Solution utilizes a series of tiny fiber optic cords from 1 to 24 fibers that can be run in the seams between ceiling and walls, along baseboards, or even on crown molding. The fiber cord is placed using a fast and low-skill adhesive process that provides reliable attachment, as demonstrated by years of reliable service to date. Small modules are used to transition the fiber from hallways to units, and near the OLT. All components can be painted if needed with conventional paints to match the existing walls.

PASSIVE OPTICAL LAN AND FIBER TO THE MDU



INVISILIGHT® SOLUTION DEPLOYMENT EXAMPLES

IN THE
RESIDENCE
OR OFFICE,
IN THE
HALLWAY
AND RISER,
ON THE
BUILDING



The various fiber cords used in the InvisiLight® Solution are typically conformed around many tight corners in or on a building, and to enable this performance OFS uses its EZ-Bend® fiber that can be bent to a tight 2.5 mm radius. No other G.657.B3 fiber has this performance, which is essential to making the InvisiLight Solution craft friendly and very forgiving. InvisiLight fiber cords can be bent around dozens of tight corners and enter tight termination modules with negligible optical loss to provide reliable, big bandwidth to the desk or living unit. EZ-Bend fiber is also the basis for EZ-Bend cables that are over 60% smaller than CAT5/6 copper cables, can be stapled around sharp corners, or easily routed through modular furniture.

Passive Optical LAN is not just growing in the enterprise space: The hospitality industry and college campuses are additional growing opportunities. Many national lodging chains are installing GPON LANS instead of multiple cables to provision voice, high speed internet, and video. The lodging chains are finding that running one fiber cable vs. multiple copper cables is easier, more cost effective, and provides all the bandwidth they need for the future. An existing lodging property can upgrade to POL technology using the InvisiLight Solution without disruption to the property decor. The same approach is being applied in college campuses and dormitories. With minimal experience a contractor can install the InvisiLight ILU Solution in a hotel or dorm room in about thirty minutes.

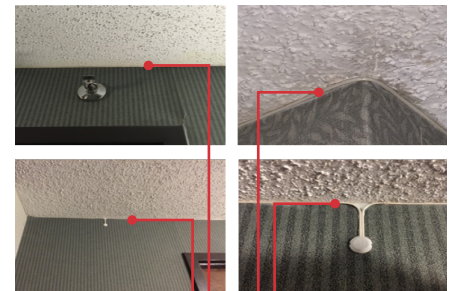
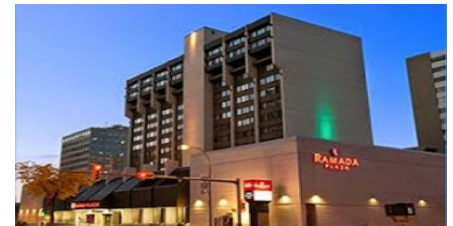
The InvisiLight solution suite is available in a variety of configurations to support residential broadband, enterprise passive optical LAN, and even traditional duplex Ethernet connectivity using an LC-Duplex module. As an example shown here are the four types of InvisiLight ILU modules offered by OFS.

From left to right:

- InvisiLight EZ-Hide Behind-the-Wall Module
- InvisiLight ILU 600 μm Module
- InvisiLight EZ-Connect® Module
- InvisiLight ILU Module
- InvisiLight 2-Fiber ILU Module



**25
Corners**



12-Fibers

The OFS InvisiLight Solution has enabled many carriers both large and small provide reliable, high bandwidth and cost effective connectivity in high volumes to residential users since 2012. The same InvisiLight Solution can enable these benefits for enterprise, hospitality, colleges, and many other in-building fiber deployments. Together with EZ-Bend® cabling and SlimBox® enclosures, OFS offers a complete in-building solution set (www.ofsoptics.com/mdu-sfu-solutions/) that can adapt to nearly any fiber deployment challenge.

Contact OFS at 1-888-FiberHelp (1-888-342-3743) or visit www.ofsoptics.com for more information.