

Follow the Fiber, See the Light, Fiber is Finally at the Desktop!

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Delays Getting Fiber to the Desktop —

Children's toys, home decorations, and automotive conveniences are examples of the growth of fiber optics in the marketplace. Fiber optic technology was everywhere except where we expected it to be — the desktop.

The number one reason for the delay in getting fiber to the desktop was the high labor cost for installation and termination. Connectivity devices and fiber optic devices in general could also be prohibitively priced. Another deterrent was the difficulty in finding the required connectivity devices.

With all of these considerations, the networking industry used fiber optics primarily for connecting wiring centers (closets) together, creating a network backbone. This application applied to both intra- and inter-building networks including campus environments.

Fiber Industry Innovations —

Innovations in the fiber industry fabrication processes have contributed to decreases in the cost of fiber cable and components such as network interface cards (NIC), connectors, and accessories. Besides costing less, these products have been improved and the installation process is now faster and better. New small form factor connector products such as the LC connector and the more popular MTRJ connector have reduced the labor time to terminate fiber strands. These new advances have reduced all the cost factors associated with a fiber optic installation.

The Driving Forces Behind Fiber to the Desktop —

Over the last decade local area networks have increased in speed from 1Mbps to 1Gbps as applications and usage of these networks have gained popularity. New products are evolving to bring network speeds up to 10Gbps. These applications (software) use greater amounts of bandwidth because of

graphics and the more complex graphics such as MRIs and other medical transmissions. Networks are also being used to transport live video transmissions in classrooms providing students with capabilities only dreamed of a few years ago. Moving these larger amounts of data requires network infrastructures capable of supporting the bandwidth needs, thus driving the fiber requirement. With the volume of data traffic on the increase, having the ability to receive and view this information in a timely manner is also a driving force behind fiber to the desktop.

Fiber to the Desktop — Realized!

Products are now available that allow fiber cables to connect with existing NIC cards making use of devices currently installed and operational. New devices have been introduced that provide functionality previously associated only to copper cabling systems. New products allow a user to switch between two fiber networks providing flexibility and keeping usage costs down. Fiber switching products can also provide redundancy in fiber optic installations. Many new products have facilitated the installation of fiber to the desktop, making it affordable and alleviating the fears once associated with a fiber optic network.

Fiber to Your Desktop —

Fiber offers many advantages over copper cabling: higher speeds, longer distances, overall performance benefits, and a greater resistance to obsolescence. Select a quality Network Services company such as Electro Standards Laboratories to install your network. Experience is key in the design, installation, maintenance, and monitoring of fiber networks. Quality components are also critical. Electro Standards Laboratories has developed its QuickSwitch series of fiber optic network switches. These switches are designed to add reliability and provide risk reduction in critical application fiber optic data links. See the light, the time is right to bring fiber to your desktop.

Electro Standards Laboratories offers Network Engineering Services. For more information, call ESL at 401-943-1164 or contact us via our E-mail, eslab@ElectroStandards.com 