Metro fiber helps buildings add value for tenants: Provides "last mile" of connectivity to the Internet

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Business Internet usage is being pushed to the limit. Cloud computing is a primary vehicle for several applications - IP telephony, video conferencing, digital media, and email - that used to reside within the premises of the office space. Tenants now need the ability to push more data through their Internet connections. Thanks to a resurgence in the fiber-optic network business (1), building owners have new opportunities to draw tenants by providing fiber to the building (FTTB), which provide that "last mile" of connectivity to the Internet.

During the mid 1990s - the "Telecom Bubble" years - thousands of miles of fiber-optic cable were run across the world. These fibers created the communications network that serves homes and businesses today. Before the ultimate goal to bring fiber directly to all office buildings could be reached, the bubble burst. A decade later, several regional exchange carriers arose that competitively expanded their fiber services. The resurgence in the fiber optic business is now ready to satisfy tenant demands for increased bandwidth.

The entire fiber optic network in Manhattan runs through a conduit and manhole infrastructure system managed by the Empire City Subway Company (ECS). The fiber cables terminate in data centers, some of which are located in buildings filled with data centers that are called "carrier hotels." Usually, the fiber can be picked up at one of the ECS manholes and extended through an existing conduit into an office building's main point of entry (MPOE). If there is no conduit to the building, a licensed DOT contractor will trench the street from the manhole to the building and install one. Once inside the building, the fiber can be run through existing risers or conduits to the tenant destinations.

Premiere tenants demand the capabilities that direct fiber connections offer. Building owners that want to bring the last mile of fiber into their building can be offset or eliminate up-front costs by agreeing to a long term contract for carrier services. Individual tenants may also seek permission from property management to bring their own fiber optic cable into the building. In this scenario, all installation costs are paid by the tenant. For both landlord and tenant situations, the permitting and installation process can take anywhere from 30 to 90 days.

In the age of IP communications, building owners and management firms recognize the importance of having connectivity options, or carrier diversity, available to tenants. Fiber to the building can service the needs of all the tenants, and the initial cost to the owner can be nominal or nothing to bring it into the building. It's a great selling point to offer prospective tenants the capability to connect to the Internet without any added project costs or move in delays.

1. Wall Street Journal, Dec. 29, 2010, "Fiber-Optic Networks Regain Some Glow."

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