



The NYSERNet New York City Metro Dark Fiber Network (also referred to as the Dark Fiber Network or DFN) is a sustainable, regional model created to provide participating institutions with nearly unlimited bandwidth capacity at a fixed price.

To support the high-speed networking needs of participating institutions, NYSERNet has deployed a dark fiber network, initially spanning Manhattan and portions of the Bronx, along with a data-center-class colocation facility at 32 Avenue of the Americas (The Colo@32), to provide:

- Economical, high-performance access to the NYSERNet Research & Education Network;
- Economical, high-performance access to NYSERNet lambda services and projects;
- Economical access to commercial Internet service providers;
- Opportunities to implement private intra- and inter-institutional networks.

By building a new network customized to the needs of its member institutions, NYSERNet created a more survivable and scalable infrastructure while taking advantage of the latest in fiber optic technology. Both the fiber network and colocation facilities are flexible to accommodate growth from current and future members.

The NYSERNet Dark Fiber Network is no different than the type of fiber assets controlled by the major telecommunication carriers, except that it is entirely controlled by the participating institutions, even to the extent of selecting, acquiring and managing the equipment used for lighting the fiber. The DFN offers improved network reliability in a cost-effective manner with diversely routed fiber loops and diverse colocation facilities available.

The DFN allows members to hand-off traffic among their own sites, to other DFN members, and to various providers of network services. The DFN offers members an effective solution for their current network services needs and positions them to scale gracefully and economically to meet the evolving needs of their end-users. By controlling transport options through participation in the NYSERNet DFN, institutions are enabled to meet the evolving demands of new applications and ride the declining cost curves for higher bandwidth with emerging optical network equipment and technologies.

NYSERNet is a private not-for-profit corporation created to advance science and education in New York State. Founded in 1985 by a consortium of visionary public and private New York State institutions, it provides high-speed network connectivity to advance research and educational initiatives in the Empire State. In 2003, implementation of a dark fiber project was begun to provide cost-effective access to institutions in New York City. The success of the NYC Metro Fiber project was followed by the April 2005 launch of the statewide optical network employing DWDM. Both these projects are examples of NYSERNet's continuing success in providing technically advanced communications facilities to its member institutions at a sustainable cost.