











FIBER OPTIC NETWORK

MUNICIPAL INFRASTRUCTURE

BROADBAND **EXPANSION**

The Town of Bristol is a small New Hampshire community of 3,300 permanent residents. Determined to provide its residents with long-term prosperity and economic sustainability, the Town's Economic Development Committee worked together to deploy the smart infrastructure necessary to bring high-speed broadband services to its previously underserved rural community.

Bristol Broadband Now is a middle-mile and municipal fiber to the premise (FTTP) network that provides symmetrical fiber optic internet to residences and businesses throughout Bristol and supports Town services, including Department of Transportation, sewer/water, fire, police and educational facilities with scalability for future smart city applications.

Bristol selected eX² Technology to design and build the two-phased project based on its ability to work with the Town and local utility providers to meet an extremely aggressive schedule in accordance with CARES Act funding requirements. eX2 designed and completed permitting and construction services for the hybrid network architecture that utilizes Active Ethernet and Gigabit Passive Optical Network (GPON) technologies.



The route consists of a 27-mile backbone/distribution network that connects to the University of New Hampshire's I-BEAM network at the point of presence located at Plymouth State University. This connection provides capabilities for distance education, research and development and economic development opportunities within Bristol and the surrounding Grafton County region.

As Bristol's partner, eX² also provided consultative services to assist with various functions and provide industry-specific support through New Hampshire Electric Co-op's IRU negotiations, grant applications, network scalability, smart city solutions and IT operations that coincided with Bristol's network vision. eX2 supported the Town in the review and selection of its ISP partner as well as attended and participated in key discussions on rural broadband for a State Senator Broadband webinar, Office of Strategic Initiatives (OSI) and the Lakes Region Planning Commission (LRPC). eX2 understood Bristol's vision for the network and supported the Town in making broadband expansion within the region a reality. The Bristol Broadband Now network has become the starting point for a 350-mile countywide fiber backbone, Connect Grafton County Now, that will connect all 39 municipalities within Graft County, NH. eX2 was awarded the \$26.3M design, build, operate, maintenance and commercialization contract.

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