

Broadband USA Applications Database

Applicant Name: VERMONT TELECOMMUNICATIONS AUTHORITY

Project Title: Vermont Fiber Link

Project Type: Comprehensive Community Infrastructure

Executive Summary

Vermont is one of the most rural states in the nation. As a small state with rugged terrain and a rural population we lack significant large businesses and densely populated neighborhoods. Correspondingly, last mile broadband and cellular providers have been unable to build profitable business cases to provide services statewide, in particular to the underserved areas targeted by the proposed project. These realities have created a 'digital divide' that threatens Vermont's economic and technological viability in the 21st century. For Vermont's large institutional customers, the lack of affordable high speed access threatens their ability to survive in their respective markets. For example, K-12 schools, due to declining enrollment and increasing costs, have cut curriculum, reduced teachers and consolidated services. Attempts to solve these problems through distance learning, online curriculum, shared teachers and services are thwarted by the lack of bandwidth. The situation is similar for all entities associated with this proposed project, such as hospitals, colleges, libraries, government and public safety locations. In addition, last mile broadband and cellular providers are now seeking 100mbps or higher speeds in virtually every town and at every tower. Absent a network such as the one proposed in this application, a robust, middle mile broadband network, these entities will not be able to meet their needs or expand services. Understanding the importance of addressing the problem, Governor Jim Douglas launched an 'e-state' initiative endorsed by the legislature creating the Vermont Telecommunications Authority (VTA) and charged it with bringing ubiquitous broadband and cellular service to Vermont. The VTA is specifically empowered to form public-private partnerships, pursue federal funding opportunities, and aggregate access at reduced prices to services and facilities required to provide broadband. The BTOP funding opportunity is exactly the type of opportunity that the VTA was created to pursue to ensure that Vermont is able to keep technological pace with the rest of the nation and the world. BTOP funding would make the economics of building this network much more reasonable and would allow Vermont to move ahead, providing needed broadband service to schools, public and private institutions of higher education, libraries, medical facilities, public safety facilities, and other anchor institutions in the service area. Vermont Fiber Link (VFL) is a public-private partnership of the VTA and Sovernet Inc., a leading communications service provider in Vermont. Sovernet will develop, own, maintain and operate the proposed network, provide data transport and Internet access to anchor customers and last mile service providers. Sovernet Fiber Corp. (SFC) will be the sole sub-recipient of the grant to the VTA and will own the funded network, as well as implement, maintain, operate and manage the resource. The VTA will provide project oversight, grant administration and ensure that the goals of the project are met. SFC is one of several key partners with a mutual interest in the prosperity and sustainability of this project. A consortium of anchor partners ranging from

government, public safety, education, libraries, and health care has been formed to help plan the project and drive usage on the network. Each of our partners has expressed their specific need for improved affordable access to broadband services and to improved capacity. In particular libraries, schools and health care providers in rural communities are finding themselves unable to meet their needs. The numerous letters received from partners offer testimony to their need. The VTA's consortium partners and local institutions want to use the data transport services SFC will offer, and SFC needs their revenue to be sustainable. A key goal of VFL is to ensure that the proposed middle mile network enhances last mile broadband and cellular service expansions. Through the aggregation of anchor customers, BTOP funding and the Sovernet/VTA relationship, we will be able to create a sustainable, high capacity network. This network will be able to serve the needs of the large customer and provide backhaul pricing that will attract last mile broadband and cellular providers. BTOP funding for the capital costs will enable affordable access to the network, which will drive increased usage and will sustain long-term growth and viability well beyond the grant period. VFL proposes to deploy broadband infrastructure capacity along a route that reaches from southern Vermont through the 'North East Kingdom' (NEK). Upon completion, the VFL project will touch on 9 of Vermont's 14 counties, serving over 85 communities in the state. The proposed middle mile project's service areas contain 79,202 residences. There are 4,110 businesses within 100 meters of the network backbone and laterals. Seven institutional partners joined in consortium with the VTA to help plan this proposed project: VT Dept. of Education (DOE), VT Dept. of Libraries (DOL), VT Dept. of Public Safety, VT Dept. of Information and Innovation, VT State Colleges, VT Law School, and the New England Telehealth Consortium. The DOE and DOL also worked to aggregate participation of their local community anchor institutions (CAI's). Over 342 CAI's will be reached by the proposed project, they include State of Vermont sites, K-12 schools, colleges (including nine community college sites and three that serve vulnerable populations), health care providers, and public libraries. The State of Vermont sites also include 30 public safety and first responder locations. In addition to Internet access service, SFC will offer carrier point-to-point/multipoint data transport services and requesting parties on negotiated, commercially reasonable terms. SFC will offer interconnection to broadband and cellular service providers at key locations along the route, providing much needed backbone connectivity. Interconnecting providers will be responsible for the security, operation and maintenance of their equipment, while SFC will manage the fiber network. The project will seek to aggregate internet connectivity for each of these large anchor user groups. With regard to Internet access service, SFC will adopt a standard Acceptable Use Policy, Privacy Policy and Terms of Service. Sovernet's current network management practices include standard best efforts Internet delivery. Sovernet acts on complaints from content providers regarding illegal downloads, and from other ISPs about spam and possible denial of service attacks that involved Sovernet email customers. Sovernet's standard terms of use prohibit use of its Internet service for illegal purposes, but access to Web sites is not blocked or filtered. Sovernet does not manage or limit the content of the communications traffic transiting its network, except to the extent necessary to maintain reliable service, to comply with all applicable laws governing such traffic, and to comply with law enforcement requests. SFC's network management practices will not involve preferential routing of traffic on the basis of content or provider. SFC commits to adhering to the principles contained in the FCC's Internet Policy Statement. The proposed VFL network will be a redundant Dense Wave-Division Multiplex (DWDM)/SONET infrastructure built on a backbone of 773 new miles of fiber with network

extensions into New Hampshire and Massachusetts. The core DWDM system will have capabilities up to 400 Gbps of simultaneous data transmission, with additional dark fibers available to significantly grow the capacity as required. SFC, will develop, maintain, operate and manage the network. Significant to SFC's readiness to undertake this project, the project area lies entirely within Sovernet's current area of operations. Technicians know the area and already work in many of the same central offices. Sovernet presently maintains a high capacity, fiber-based network for its backbone which will be leveraged for this project. The VTA's staff is comprised of seasoned telecommunication, financial and project management experts who will ensure the project is successful. The overall project cost will be \$48,230,985 including BTOP funds and matching contributions, including a grant from the Gates Foundation. This includes all costs associated with implementing the network. In the first eight years, the VFL project is expected to serve over 450 anchor customer locations, with intent to serve over 2500 businesses along the route. In addition, we have letters of intent from several last mile broadband and cellular providers who will serve thousands of end users. The total jobs created by this project will be 524, comprised of 235 direct, 100 indirect and 189 induced jobs. We appreciate the NTIA's consideration of the VFL project and believe that this project will be an enormous benefit to Vermont.