



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 9:43:02 PM	Easygrants ID: 7508
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: VERMONT TELEPHONE COMPANY, INC
Task: Submit Application - BTOP	Applicant Name: Dr. Michel Guite

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A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	878195239
CCR # (CAGE)	3B3P4
Legal Business Name	VERMONT TELEPHONE COMPANY, INC
Point of Contact (POC)	FRAN STOCKER 8028859000 Ext. fstocker@vermontel.com
Alternate POC	DAWN TUCKER 8028859000 Ext. dtucker@vermontel.com
Electronic Business POC	FRAN STOCKER 8028859000 Ext. fstocker@vermontel.com
Alternate Electronic Business POC	DAWN TUCKER 8028859000 Ext. dtucker@vermontel.com

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	Dr.
First Name	Michel
Middle Name	
Last Name	Guite
Suffix	
Telephone Number	802-885-9000



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Fax Number	
Email	marian@kenseth.com
Title	Chief Executive Officer

Additional Contact Information of Person to be Contacted on Matters Involving this Application:

Project Role	Name	Phone	Email
Secondary Point of Contact	Mr. Sam , Coleman	8028857793	scoleman@vermontel.com
Other Contact	Mr. Justin , Robinson	8028857708	jmrobins@vermontel.com

Environmental Point of Contact

Prefix: Mr. Name: Coleman, Sam Suffix: Telephone Number: 8028857793 Title: Network Engineer

Organization Classification

Type of Organization	For-profit Entity
Is the organization a small business?	Yes
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No



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Authorized Organizational Representative	
AOR Name	TUCKER, DAWN
Result	Applicant Authorized

Project Title and Project Description

Project Title: Vermont Broadband Enhanced Learning Link (VT BELL)

Project Description: The Vermont Broadband Enhanced Learning Link network is a GigE to 10 Gig fiber network to 200+ VT/NH/NY anchor institutions, offering GigE WAN, Internet I & II, off-site data storage, and HDTV teleconferencing, at an average price of [REDACTED], to VT High Schools, every hospital, every college, and every public safety center, augmenting VTel's existing 1,000 mile network.

CCI Priority Checklist

The following items were selected from the CCI Priority Checklist:

1. This project will deploy Middle Mile broadband infrastructure to community anchor institutions.
2. The project will deploy Middle Mile broadband infrastructure and has incorporated a public-private partnership among government, non-profit and for-profits entities, and other key community stakeholders.
3. This project will deploy Middle Mile broadband infrastructure in economically distressed areas.
4. This project will deploy Middle Mile broadband infrastructure to community colleges.
5. This project will deploy Middle Mile broadband infrastructure to public safety entities.
6. This project will deploy Middle Mile broadband infrastructure and either includes a Last Mile infrastructure component in unserved or underserved areas or has received commitments from one or more Last Mile broadband service providers to utilize the Middle Mile components. Any Last Mile components in rural areas do not exceed 20% of the total eligible costs of the project.
7. This project will deploy Middle Mile broadband infrastructure and the applicant has proposed to contribute 30 percent or more in non-federal cost match.

Comprehensive Community Infrastructure Components



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The following items were selected from the Comprehensive Community Infrastructure Components:

Middle Mile

BIP Applicants

Have you also applied to BIP for funding in the sample proposed funded service area?

- Yes

If Yes, please provide the project title and Easygrants ID number:

Title of Joint BIP Application: Wireless Open World (WOW) by VTel Wireless, Inc.

Easygrants ID: 7555

Other Applications

Is this application being submitted in coordination with any other application being submitted during this round of funding?

- Yes

Easygrants ID	Project Title
6412	CBN Connect Six County CCI

If YES, please explain any synergies and/or dependencies between this project and any other applications.

VTel has committed in this BTOP project to connect robustly to every known ARRA-assisted fiber network at any meet-point on our VT/NY/NH/MA four state 1,000 mile fiber ring connecting rural Vermont to Boston, New York and Montreal. We have worked very closely with CBN Connect for several years, and we support their efforts fully. Our Montreal-to-New-York City fiber backbone today is very near their proposed Sesame Street, Plattsburgh, NY, proposed hub, and we share their vision for dark fiber connecting to multiple providers, enabling New York and Vermont and New Hampshire universities, hospitals, colleges, schools, and public safety anchors to use open market pricing to select among competing services. This same VTel commitment to support ARRA-funded networks means we commit to cross-connect to



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federally-funded New England Telehealth Consortium (NETC), and further we strongly support their vision, and see NETC as a core contributor to health and medicine in Vermont. We also commit, if funded, to robustly cross-connect our VTel fiber network in Stowe, VT, to North-Link, a federally funded 400-mile build along the Vermont/Canada border. We are a proven good partner to non-profit and for-profit entities, and we look forward to many years of partnering with these three organizations.

Individual Background Screening

Is the Applicant exempt from the Department of Commerce requirements regarding individual background screening in connection with any award resulting from this Application?

- No, Applicant is subject to these requirements

If the answer to the above question is "No," please identify each key individual associated with the Applicant who would be required to complete Form CD-346, "Applicant for Funding Assistance," in connection with any award resulting from this Application:

Name	Title	Employer
Michel Guite	Chief Executive Officer	VTel

B. Executive Summary, Project Purpose and Benefits

Essay Question

Executive Summary of the proposed project:

The Vermont Broadband Enhanced Learning Link (VT BELL) addresses an Internet bandwidth and transport capacity shortage in the existing middle mile infrastructure within the State of Vermont. This lack of bandwidth slows the deployment of a needed distance learning network, access to Internet2, access to large databases and libraries, and access to many critical resources necessary to ensure the long term educational and economic viability of Vermont. Vermont



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Telephone Company, Inc.(VTel) proposes expanding VTel's 1,000 mile GigE-to-10GigE fiber network, to deliver GigE (billion bits-per-second) broadband to over 200 high schools, hospitals, colleges, universities, community colleges, rural independent telephone companies, larger telephone companies, and to public safety facilities including police barracks across Vermont, and to Vermont's [REDACTED] highest peaks enhancing our Department of Public Safety's statewide microwave network, while also enabling more cost-effective back-haul to assist current and future wireless carriers. VT BELL will provision reliable redundant broadband to bridge this rural technology gap, and connect to our partners and competitors for Open Access. This network builds on the \$12 million VTel already invested into its 1,000 mile optical fiber network to serve rural Vermont, and on the \$100 million total we have invested since 1994. We were first in Vermont with DWDM, and we believe we were clearly and evidently a catalyst in reducing wholesale Internet and transport prices by over 80%. VTel's VT/NY/NH/MA network today serves 43 critical community anchors in Vermont, as well as [REDACTED]

[REDACTED] This BTOP project seeks to extend our current network to 207 new anchor institutions, at an average estimated revenue per anchor in Year Three [REDACTED] for an expected (but not required) set of service bundles that include for most users (i) GigE WANs to similar institutions and hubs, (ii) 25 or 100 Meg of Internet burstable to GigE, (iii) GigE Internet2 transport, (iv) almost unlimited remote data storage in VTel's new Wallingford, VT, solar-assisted data center, and (v) Cisco HDTV teleconferencing technology. We also propose to offer leased dark fiber on our 50 miles of 192-fiber new backbone at \$12.50/strand/mile/month, and offer Internet wholesale at \$10/Meg for amounts to any customer or carrier over 500 Meg. The proposed new network build interconnects to all ARRA and federally-assisted fiber and broadband networks within range in upstate New York (including CBN Connect), in New Hampshire (including New England Telehealth Network), and in Vermont (including North Link). VTel proposes one funded service area, comprising 3,200 census blocks across Vermont, New York and New Hampshire covering 68,192 people, including 13,760 businesses and 1,506 critical community organizations over 1,589 square miles equivalent to 17.2% of the state's geography. The VT BELL network will directly connect to 207 Community Anchor Institutions. VTel proposes to build 348 new miles of fiber including at least 50 miles of backbone using our contributed 192-strand fiber that is today unused in our North Springfield, VT, warehouse, and it is this backbone that we will willingly lease at \$12.50/strand/mile/month. Vermont Telephone Company, Inc.'s, proposal adheres fully to the letter and spirit of all principles contained in the FCC's Broadband Policy Statement (FCC 05-151 adopted Aug. 5, 2005), and meets the RUS and NTIA requirements for non-discrimination and network interconnection obligations as specifically outlined. One or



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more 10Gbps wavelengths will be provisioned around the DWDM network and connected to Juniper MX240 routers, to create a MPLS ring [REDACTED]. Using MPLS, this network will transport a wide variety of protocols and circuit types to support legacy and future communication needs. A Juniper SRX210 services gateway, or better, will be installed at each end-user location. This extends the MPLS network to end-user hubs and permit provisioning of VPLS (Virtual Private LAN Services) between end-users to support telepresence and allow end-users to consolidate servers and other network devices to reduce IT overhead. We invite but don't require 'hubs' to control their own 'spokes'. While GigE is the starting point for the network, VTel recognizes the need for a capacity migration path, and our design and DWDM technology permits simple upgrade to 10Gig (10,000Mbps) per location or office, and we are in discussions with our university clients for upgrade to 40 Gig. We offer unmatched broadband speed, ease of upgrade, best-in-Vermont reliability, capacity to support any broadband service in existence today, consistent capacity at almost any distance, lack of interference from RF sources, and lowest costs. VTel was first in Vermont with GigE, and first with DWDM (we were also first in Vermont to offer Internet access). VTel's 1,000 mile fiber network today reaches directly into many of Vermont largest high schools and secondary schools, in [REDACTED], and elsewhere, as well as [REDACTED], several smaller hospitals, [REDACTED] and our largest state offices. Our network has proven more reliable than other Vermont fiber networks and as a result, VTel was selected in 2009 by Vermont's Department of Information and Innovation, after exhaustive independent reviews, to become the principal Internet provider for the State. We lead in service quality, price, and friendliness. Infrastructure Cost: The project is expected to cost a total of \$19,620,800 with [REDACTED]. We propose to pay 30% using our cash on hand. VTel expects this \$19.6 million project to support 72 direct full-time job years, 69 indirect job years, and 677 induced full-time jobs. We estimate this large number of induced jobs for reasons described in more detail under 'Project Benefits'. In summary VTel wants to use the Rural Radio Farm Forum model developed in the early 1940's to help rural America recover from the Greet Depression. VTel's chairman completed PhD work at Stanford and MIT related to Rural Radio Farm Forums, and implemented the model in the 1970's on US-assisted rural overseas projects. VTel will hire four field workers, and equip two "Broadband Vans", to organize small-group neighborhood meetings in anchor sites over three years, to reach 6,000 rural Vermonters, using Broadband and HDTV teleconferencing to help find jobs, organize new businesses, bring in small business, achieve better milk prices, run more profitable



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farms, learn better ways to assist unemployed family members, and market individual and community skills and resources. Vermont has an aging population, and ranks near the bottom nationally in percent of citizens aged of 25-29, and near the top for percent aged 50-54. We have the highest percent of high school graduates who depart the state for college, and most don't return. Despite our influx of about 20,000 young people who come into the state to attend institutions of higher learning each year, 80% leave within a year after completing their education. The median age of Vermont workforce is 42.3, the highest in the nation. Networking Vermont's educational, medical, collegiate and public safety resources with massive bandwidth, and enhancing this with thousands of Broadband-assisted community meetings organized by Rural Radio Farm Forum field workers over three years, built on the VTel \$100 million already invested into rural broadband, will help us make rural Vermont what it can be, and wants to be -- a shining example of the best broadband in America.

Project purpose:

VTel's proposed Vermont Broadband Enhanced Learning Link will provide infrastructure and equipment to support schools, medical and health care providers, community colleges and other institutions of higher learning, small rural independent telephone companies, and public safety facilities within the State. The geography and population density of Vermont create physical barriers to education and information sharing, which can only be overcome by the use of reliable high speed broadband access. With the economic realities of our times, educational institutions in Vermont are often unable to meet the capital requirements to build a sustainable network to provide the applications and services that they so desperately need. The VT BELL network is the cornerstone necessary to drive broadband applications into the classroom. The Virtual Classrooms we propose, using broadband and HDTV teleconferencing and field worker support (the latter provided without BTOP contribution), will allow supervisory unions throughout Vermont to maximize the return on their educational dollars. Districts will be able to maintain, expand, and share current and advanced curriculums. Teacher resources will be able to be more effectively allocated, without reducing services to any Vermont students, but rather, augmenting services dramatically. The budget challenges that result from a reduced population base and declining tax base can be mitigated with broadband. This re-allocation of resources will help Vermont schools develop new courses utilizing new applications and technology that can only be accessed via a high capacity broadband network. An example of the possibilities is well illustrated by a VTel and Vermont's Department of Education (DOE) Public/Private partnership. VTel, at its own cost, in 2005 began building optical fiber home-run connections from its statewide fiber network to a test group comprised of a few of the largest high schools in



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Vermont. Harnessing the power of these fiber connections, VTel provided high capacity internet access, 600GB of Discovery Channel videos, and access to Vermont's NEWSBANK data base that serves the U.S. Library of Congress and schools and libraries nationwide. This project was highly successful and remains a working model what can be accomplished when a project is not subject to bandwidth limitations. The technology landscape of Vermont's Healthcare providers is similarly stressed by the need of smaller hospitals for more bandwidth, to keep up with the largest regional medical centers. With passage of ARRA and the HITECH Act, Vermont is poised to dramatically accelerate the pace, scope and scale of its Healthcare Information Tech infrastructure connectivity. Enhanced broadband across the state will provide a critical lynchpin for this, with interconnection of all the state's hospitals and medical practices but then including all health care providers, and broadband to all Vermont rural homes, enabling telemedicine for home health monitoring and services statewide. Exchange of health information includes low-bandwidth data files such as those used to transmit records between HER systems and other 1:1 clinical messaging applications, but also includes very large digital images, and transfers of large EHR files and other public health records that depend on VTel's massive redundant bandwidth. Having broadband connectivity to all healthcare providers will ensure that Vermont can take maximum advantage of HIT and HIE capacities, to support the right care, for the right person, at the right time, improving quality and reducing duplicative expense. The VT BELL network is also designed to provide GigE fiber access to Vermont State Police barracks. These high capacity connections will help foster the use of technology in everyday policing. Troopers will be able to effectively access applications, national databases and resources necessary to ensure the safety of the citizens of Vermont. However we also propose fiber to Vermont's [REDACTED] highest mountaintops, to upgrade redundancy and capacity for our Department of Public Safety statewide microwave network, and to simultaneously boost capacity and lower costs for the microwave backhaul networks of Vermont's current and future wireless carriers. VTel believes that one result of the Vermont Broadband Enhanced Learning Link will be the continued adoption and expansion of broadband technologies across the Vermont population. The use of more broadband technology will become the rule and not the exception. This change in adoption will result in the creation of new and challenging jobs for the Vermont work place. At VTel we believe that by amplifying the impact of this broadband investment with innovative applications and with VTel-funded field workers working with anchor institutions, VTel can help go beyond the limited role of most telecommunications carriers, to be a true partner to many anchor institutions, to assist in enabling the creativity, knowledge and skills of Vermonters to create more jobs and stronger rural communities.



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Recovery Act and Other Governmental Collaboration:

In the design and engineering for VT BELL a key consideration was how the assets of VTel's existing 1,000 mile fiber network could be utilized to not only accelerate adoption of broadband, but also assist in the deployment of new applications and programs. The Federal Communications Commission's Rural Health Care Pilot Program recently announced \$24.69 million in funding for the New England Telehealth Consortium (NETC) for Maine, Vermont, and New Hampshire. This multi-state telehealth network will link approximately 500 primarily rural health care facilities – including hospitals, behavioral health sites, correctional facility clinics, and community health care centers, to urban hospitals and universities. VTel initiated fruitful and enjoyable discussions with NETC and plans to propose active VTel participation and support in reply to NETC's expected Request for Proposals. The VT BELL network is designed to fully support this NETC vision. The State of Vermont's health reform vision, as articulated by the Office of Health Access and Health Care Reform, includes a plan for ubiquitous Health Information Exchange (HIE) across the full continuum of health care providers. The Office of the National Coordinator (ONC) and the Center for Medicaid Services (CMS) have not yet released specific guidance on funding for HIE and HIT grant programs, but ONC (through its Sec. 3013 grants to states and state-designated entities) and CMS (through its Sec. 4201 Medicaid provider HIT adoption and implementation funding) will be providing funds to states to support HIE infrastructure development to complement broadband infrastructure. VTel is the primary provider of Internet and fiber and data services [REDACTED]

[REDACTED] We connect to several other hospitals, and we are committed to fully supporting NETC and its members.

The core of Vermont's future survival, growth, and prosperity is its K-12 schools. Anyone familiar with Vermont recognizes we have a history of several hundred highly independent school systems, each deeply dedicated to education, with each doing a very good job, but without the regional and statewide cooperation that could enable Vermont to lead the nation. A statewide broadband network will have tremendous catalyzing impact. To date, at least 188 schools from around the state have expressed their commitment to an educational network. We have also received Smart Grid Investment Grant Program (CFDA #81.122) funds. While the fiber in this network is not being deployed using ARRA funding, it is an infrastructure that can be leveraged for eEducation, eHealth, and eEnergy. Vermont's electric utilities, through VELCO, have expressed willingness to work with VTel, in part as a consequence of VTel's 2005 multi-million dollar contract with VELCO giving VTel a right of first refusal for such fibers.



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Fit with BTOP CCI Priorities:

VTel has carefully reviewed the Comprehensive Community Infrastructure Priority Checklist as outlined by the National Telecommunications and Information Administration. The Vermont Broadband Enhanced Learning Link (VT BELL) will deploy Middle Mile broadband infrastructure to 207 community anchor institutions in Vermont. These institutions will have access to a GigE fiber network that will provide high capacity Internet access as well as direct access to the Internet2 backbone. One network enhancement is VTel's installation of an IP-based 52-site HDTV video conferencing network for Virtual Classroom and other applications. VT BELL will also provide off-site storage for critical data, using our new Wallingford, VT, state-of-the-art data storage barn assisted with solar power. VTel's proposed network will provide Middle Mile broadband infrastructure across the State. The VT BELL network has the support of numerous educational institutions (letters of endorsement are being submitted as part of our submission). VTel has committed, where possible, to the development of new partnership arrangements with local and state governments, non-profit and for-profit entities, and other key community stakeholders. VTel has proactively contacted CBN Connect (connect in Plattsburgh, NY), New England Telehealth Consortium (connect in Hanover, NH), North-Link (connect in Stowe, VT), and Three Ring Binder (connect to be determined), to identify synergies within the scope of all federally-assisted projects within range of our network. The goal is to maximize the return on every funding dollar. The fiber interconnection with CBN Connect will provide affordable high capacity Internet services to the economically distressed North Country Region of New York State. The design of VT BELL also extends the network to the Community Colleges of Vermont and the four state campuses. The inclusive engineering process used by the VT BELL network will allow VTel to incorporate [REDACTED] of the State Police. The robust access proved by the GigE network will significantly enhance the effectiveness and efficiencies of these vital public safety entities. VTel believes that the completion of the VT BELL network is imperative for the education, healthcare and public safety of Vermont Citizens. We propose to contribute 30% of the \$19.6 million initial capital costs, but also to contribute our 50 miles of 192-fiber backbone cable in our warehouse, to contribute our Rural Radio Farm Forum field workers and Broadband Vans, and to contribute full access to our redundant data centers and meet-me points in Wallingford, VT, and Rouses Point, NY, and massive Internet capacity, to assist all other ARRA-funded entities who we can help.

Is the applicant seeking a waiver of the Buy American provision pursuant to section x.Q of the NOFA?

➤ No



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Is the applicant delinquent on any federal debt?

- No

If Yes, justification for delinquency:

Are you seeking a waiver of any requirement set forth in the NOFA that is not mandated by statute or applicable law?

- No

Is the applicant a current recipient of a grant or loan from RUS?

- No

C. Partners

Are you partnering with any other key institutions, organizations, or other entities for this project?

- Yes

If YES, key partners are listed below:

Project Role: Other
Name: Lowe, Howard
Phone: 5185642214
Email: hlowe@cbnconnect.com
Address 1: 194 US Oval
Address 2:
Address 3:
City: Plattsburgh
State: New York
Zip Code: 02901
Organization: CBN Connect
Organization Type: Non-profit Corporation
Small business: No
Socially and economically disadvantaged small business concern: No

Description of the involvement of the partners listed above in the project.



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We have been in cooperative discussions with CBN Connect for several years, and we support their proposal for BTOP funding wholeheartedly. They bring to the table a proposed broadband network connecting State University of New York, Plattsburgh, and a wide group of educational, medical, and public safety anchor institutions in Clinton, Franklin, and Essex Counties in New York. They also propose connection to Development Authority of the North Country's 750-mile fiber network into St. Lawrence, Jefferson and Lewis Counties in New York.

VTel brings to the table five things of value to assist CBN Connect in their important mission: (i) [REDACTED] open a door to closer collaboration between Quebec universities with SUNY Plattsburgh and other U.S. universities; (ii) Our VTel 1,000 mile network into Vermont and New Hampshire and Massachusetts, enabling immediate GigE and 10-Gig paths between upstate New York colleges, hospitals, and public safety entities, with their counterparts across virtually the entire rural Northeastern U.S.; (iii) [REDACTED] we have offered to CBN Connect for their use at no cost for two years; (iv) Our VTel right to splice into our dark fibers, at several hundred splice points along the route to New York City, enabling lowest-cost, flexible, and rapid fiber access to new educational, medical, and public safety facilities if requested by CBN; (v) VTel's [REDACTED] fibers open the door to bringing yet one more isolated region of New York into the CBN world.

D. Congressional Districts

Applicant Headquarters

- Vermont

Project Service States

Vermont

New York

New Hampshire



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Project Service Areas

Vermont - At-Large

New York - 23

New Hampshire - 2

Will any portion of your proposed project serve federally recognized tribal entities?

- Yes

Indicate each federally recognized tribal entity your proposed project will serve.

St. Regis Band of Mohawk Indians

Have you consulted with each of the federally recognized tribal entities identified above?

- Yes

E. Service Area Details

Is the applicant seeking a waiver for providing less than 100% coverage of a service area?

- No

Project Details

Service Area Type:	Middle Mile
Service Area Name:	VTBELLSA
Rural Classification of the Last Mile Service Area:	Rural
Service Status of the Last Mile Service Area:	Served

If Service Status is "Underserved" please select at least one applicable option from this list.
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Total Square Miles in Service Area: 1,589
Total Population in Proposed Service Area: 159,132
Total Number of Households in Service Area: 68,192
Total Number of Businesses in Service Area: 13,760
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 1,506
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 52,585
Estimated Percentage of Households with Access to Broadband: 93
Estimated Percentage of Households Subscribing to Broadband: 67

F. Community Anchor Summary

Community Anchor Summary	
Schools (k-12)	132
Libraries	0
Medical and Healthcare Providers	32
Public Safety Entities	33
Community Colleges	14
Public Housing	0
Other Institutions of Higher Education	28
Other Community Support Organization	0
Other Government Facilities	0
TOTAL COMMUNITY ANCHOR INSTITUTIONS	239



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Historically Black colleges and Universities	0
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	0
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	0

G. Project Benefits

Demographics	
Jobs	
How many direct jobs-years will be created from this project?	72
How many indirect jobs will be created from this project?	69
How many jobs will be induced from this project?	677

Methodology used to estimate jobs:

We used Council on Economic Advisors methodology to preliminarily calculate 68 direct, 69 indirect, and 77 induced jobs. As a general rule this guideline is very useful. However a key part of the VT BELL program is to use the Rural Radio Farm Forum model that helped rural areas recover from the Great Depression in the early 1940's. VTel's chairman Dr. Michel Guite worked at MIT and at Stanford, during his 1969-1977 PhD research, with Professors Wilbur Schramm, Daniel Lerner, and Ithiel Pool, who were pioneers of Rural Radio Farm Forum. The model has been replicated successfully worldwide, and is based on sending field workers to organize small community forums, of five and six peers, with forums meeting several times, over two or three weeks, to discuss topics of shared interest, supported and enhanced by state-of-the-art technology. In the 1940's the technology was low-cost radio. Today the technology is low-cost broadband. The power of the model is that small groups of neighbors are often sources of



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extraordinary innovation and creativity in solving shared local problems. VTel's budget includes two Broadband Vans, and four field workers, to travel to all parts of the state where VTel's broadband anchor facilities terminate, to each organize 20 meetings per week with some 5 people per forum, with the result of 2,000 people per year, 6,000 over three years, with a target of 10% finding jobs. We therefore augment direct jobs from 68 to 72, and induced jobs from 77 to 67

Project Impact:

Despite Vermont's small size, we believe the state has the potential to outperform larger urbanized areas in broadband connectivity. U.S. Census data from October, 2009, reports while Vermont was 19th in the U.S. in Internet penetration, it was 5th in the U.S. in number of people reporting frequent access to Internet. Similarly Akamai's "State of the Internet Q3 2009" reports Vermont as 4th in the U.S. in average speed of Internet connections. Translation; our connections are fast, but they are not getting to nearly enough people. Vermont has a lot of improving to do, but Vermonters in general have done a good job struggling to overcome the limitations of telecommunications in rural low-density communities. The proven appetite by rural Vermonters for Internet has the potential to enable Vermont to lead America in rural Internet use. We first approached Vermont's Department of Education several years ago and proposed a Public/Private Broadband partnership, to bring together Vermont's largest high schools. We were initially joined by the [redacted] school board, and by high schools in [redacted], the latter two which are inside our VTel service area. Gradually we were joined by several more of the highest-ranked high schools in our state, in [redacted]

[redacted] Finally, during this period we were also approached by several of our school network members asking us to construct 'spokes' emanating from each high school, to reach smaller schools nearby. Today our statewide educational fiber network serves [redacted] schools, with [redacted] and [redacted]. We have learned by experience that this approach reflects what many Vermont schools have found useful. Similarly we began serving [redacted] several years ago, and [redacted], too, asked us to construct additional 'spokes' and we have built more than [redacted] miles of optical fiber for [redacted], comprising among other facilities a ring of [redacted] fibers to [redacted], and local data centers. As a means to demonstrate our gratefulness to [redacted], several years ago we donated HDTV teleconference systems interconnecting (over newly-built VTel optical fiber) a conference room in [redacted], a conference room in the large [redacted], White River Junction, VT, and smaller conference rooms in [redacted]



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██████████ and ██████████. We here propose to expand our fiber in ██████████ ██████████, and to reach every hospital in Vermont, as well as another nearby hospital in NH. We also propose to connect to a hub associated with New England Tele-Health Consortium, and to connect to a hub in Plattsburgh, NH, of CBN Connect, who is seeking BTOP funds to connect dark fiber to State University of New York, Plattsburgh, and regional hospitals and medical centers in upstate New York. The outcome will be a network of every Vermont hospital, and the largest major hospitals across an entire integrated region of three states. Similarly we propose to interconnect, via high-speed GigE data interface, all (but one) of the independent telephone companies of Vermont, as well as ██████████. To our knowledge there is no prior example of Vermont's independent telephone companies agreeing to interconnect onto an integrated network (though there remains one 'hold-out' in the form of a company we work with closely with 700 Vermont telephone lines, who has declined to participate directly or indirectly in ARRA funding, but may elect to join our network later). We consider it a very significant step to be able to offer community anchor institutions in each independent telephone territory a similarly priced suite of state-of-the-art services including GigE WAN connectivity, Internet and Internet2, and access to virtually unlimited data storage, and similarly to offer all such companies and our competitors easy, secure access to purchase Internet and other services from VTel, or to use VTel's 1,000 mile, \$10 million network to purchase these resources from any of dozens of other providers at 60 Hudson Street in New York, and One Summer Street in Boston, at prices that are dropping ██████████. Similarly we propose to extend our fiber network to virtually every university, college, and community college site in all parts of Vermont. We are pleased to here offer the resources of this fiber network to all four Vermont State College campuses, to all of the community colleges, and to all of the private colleges in the state. We propose to connect to North-Link, which is a federally funded project building 400 miles of dark fiber along Vermont's northern border, and we here propose to use North-Link fiber to reach Newport, VT, ██████████ ██████████. We propose to bring about the long-awaited and needed statewide deployment of optical fiber to ██████████ ██████████. Because many rural wireless carriers use microwave and mesh networks to interconnect towers, robust fiber-delivered data bandwidth to these ██████████ mountain-tops will provide a helpful boost to current and future Vermont wireless networks. Furthermore, ██████████ relies significantly on a microwave ring using these ██████████ mountain tops, and redundant fiber to these sites has been a longtime request from ██████████. Similarly we here propose to build fiber to an additional ██████████



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In summary we are offering to interconnect 250 principal community anchors comprising (i) every high school over 500 students, with hub and spoke where requested; (ii) every hospital, with hub and spoke where requested; (iii) all but one of the Vermont independent telephone companies; (iv) every college and community college and private college, with hub and spokes where requested; and (v) every known major public safety site and the [REDACTED] highest mountain tops. The offering we today make to our schools is well received, and is here enhanced, and made to all as follows. This is not our sole offering, but it provides guidance, and we believe it will prove popular, based on three-year commitments. For \$1,400 per month we will deliver (with no install fees) a dedicated fiber into an organization’s computer room with a Juniper Switch/Router, plus a private and protected GigE WAN private sub-network to any and all other schools (or hospitals, or police, etc.) on the network, plus 25 Meg of Internet to each school with the ability to burst to GigE, plus full access to UVM’s GigE Internet2 pipe, plus virtually unlimited data storage in our new Wallingford, VT, data storage facility, plus (for schools) Distance Learning HDTV teleconferencing. For \$2,500 per month we make the same offer with 100 Meg of Internet bandwidth, and with the ability to burst to GigE. Additionally, we will offer our customers the right to connect to any “spokes” that we build and connect at \$400/month/spoke, with the requirement that these be reasonably accessible to the hub. We will also offer dark fiber to other carriers at \$12.50/strand/mile/month, on our BTOP funded backbone, and we will also offer to contribute at no project cost approximately 50 miles of 144-strand aerial and underground fiber in VTel's warehouse today, such that at least 50 miles of VTel's proposed 348 mile build will be comprised of inter-town backbone. We also offer Internet bandwidth to anyone at \$10/Meg/month for amounts over 500 Meg, and generally for [REDACTED] [REDACTED] for smaller amounts. We guarantee these prices for three years, and further we offer “The VTel Guarantee” to everyone, as we always have. The VTel Guarantee is that if in any year you ever conclude we could have served you better, for any reason, we give you a free month of service, no questions asked.

Vulnerable Populations:

The Vermont Broadband Enhanced Learning Link (VT BELL) will provide high speed broadband access to education, healthcare and public facilities in Vermont. The interconnections will extend these services into the North Country region of New York. While many of these institutions potentially provide services to vulnerable populations, VTel does not believe that any of these population groups are overrepresented in the project's Proposed Funded Service Area.

Level of Need:



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In the 15 years since 1994, when we at VTel bought this company for [REDACTED] from GTE/Verizon, and during the 15 subsequent years when we invested a further [REDACTED] into our broadband network, we have repeatedly seen -- in hundreds of examples -- that rural Vermonters have a tremendous desire to use Internet, to explore Internet, and to accelerate Internet. Inside our own small VTel territory, where we benefit from federal rural supports that encourage investing, we have seen continuous explosive growth in Internet use. Some of our fourteen rural VTel communities have led America in DSL penetration for almost all of the last 10 years, and we have been recognized in Telephony Magazine, and in the DSL Prime newsletter for doing this. Yet simultaneously, we have witnessed that beyond our rural footprint of 16,000 VTel homes in 14 towns, where these support mechanisms are not in place, many Vermonters are starved for Internet. We see innovators in education, health care, and government becoming discouraged, by the facts that our largest local telephone company recently became bankrupt, that cable TV prices are high, that service quality is often poor, and that too few companies walk the walk, as well as talk the talk of low-cost revolutionary broadband for ever rural Vermonter. Beginning about 12 years ago, when we at VTel did not yet own our own optical fiber ring to New York and Boston, we -- and many like us -- were paying Verizon, and AT&T, and Sprint, and Sovernet, and MCI and others about \$500/Meg for wholesale Internet bandwidth. Five years ago when VTel was one of Vermont's largest wholesale local Internet purchasers, we were paying about \$180/Meg, when we begged for relief from Sovernet and others on grounds that Vermont rural Internet pricing was suffocating demand. We finally informed the carriers, as our demand approached \$1 million a year, that we knew pricing in New York and Boston was \$25/Meg, and VTel would be forced to build our own network to New York and Boston if Vermont prices did not drop. With the help of [REDACTED], who also reported the feeling they were being overcharged, we initiated Vermont's first DWDM optical fiber network in 2004. We helped to rapidly bring down Vermont wholesale Internet prices by about 80% in our first three years, and we are still leading this trend. We still serve [REDACTED], and we have added [REDACTED], and [REDACTED] and [REDACTED], and [REDACTED], and we were selected by the State of Vermont in 2009 as their primary Internet carrier, in part because our Broadband prices of \$8 to \$20 per Meg are below many others, and in part because our quality of service is high. One example based on public data might help. Our 2009 successful bid for a UVM 3-year GigE circuit from Burlington to the Harvard/MIT GigaPop was \$4,950/month, while the lowest competing bid, from Level 3, was \$12,125/month, and the highest competing bid was from Fairpoint, at \$29,702/month. We recently offered UVM 12 x 10 Gig circuits at \$3,240.77/month/circuit, and we believe many competing offers will be 300% higher. We



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respectfully plead with the NTIA reader to note that we have led this process in Vermont, we are still doing so, and we ask you to enable us to expand our network to another 207 community anchor institutions to bring our total to 250, to make the revolution in Broadband pricing in Vermont irreversible. We believe Broadband means a better life for all. We believe fundamentally in the "All Boats Rising" philosophy, and we are committed to also assisting our competitors with lowest-cost transport and Internet. Our motto is "World Class Technology with Down-Home Service".

H. Technology

Technology Type

Indicate the technology that will be used to deliver last mile services. The following items were selected:

Wireline - Fiber-optic Cable

Wireless - Terrestrial Mobile

Other:

Technology Questions

Methodology for Area Status:

VTel used data was made available from the State of Vermont that detailed the number of premises that had access to the minimum level of broadband (768Kbps down, 200Kbps up). We mapped our existing and proposed network in a GIS layer and then used an INTERSECT select to identify census blocks that were involved. From that point we were able to, on a census block by census block basis, determine served, underserved and unserved status using the dataset also provided by the State of Vermont.

Description of Network Openness:

- VTel understands and agrees to comply with the nondiscrimination and interconnection obligations outlined in the NOFA. VTel will be solely responsible for the operation of the Vermont Broadband Learning Link network.

System Design:



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VTel is pleased to provide the following description of its proposed Vermont Broadband Enhanced Learning Link (VT BELL) network. Starting from the end-users, which are comprised of community colleges, K-12 schools, institutions of higher education, medical facilities, State Police barracks, mountain-top towers, and inter-connect hubs, single mode fiber-optic cabling, initially lit with a 1Gbps Ethernet service, will be constructed back to the existing VTel 10Gig-capable DWDM ring that runs in a figure-eight configuration around the State of Vermont. The existing network has redundant connections to the cities of New York and Boston. The existing DWDM network will be upgraded, [REDACTED], to provide add/drop access for high speed Internet, Internet2, inter-facility data communications, Cisco telepresence conferencing and offsite redundant data storage.

A 10Gbps wavelength will be provisioned around the DWDM network and connected to Juniper MX240 routers, which will create an MPLS ring. MPLS allows the network to transport a wide variety of protocols and circuit types, including support for legacy and future communication needs.

A Juniper SRX210 services gateway will be installed at each end-user location. The SRX210 is a high-performance router/firewall with 750Mbps of firewall throughput. This device will extend the MPLS network all the way to the end-user and allow for the provisioning of VPLS (Virtual Private LAN Services) between end-users – specifically to support both telepresence and allow end-users, such as schools, to consolidate servers and other network devices to reduce IT overheads. The Juniper SRX-series also gives the end-user the option of content filtering – a key requirement for E-Rate funding for schools. This content filtering uses software from Websense (<http://www.websense.com/>). End-users who are interested in this service may have to subscribe to receive filtering updates from Websense. End-users can gain failover network redundancy by taking advantage of the modular features of the SRX, which can also support legacy T1 and DSL interfaces.

Basing the core network on Ethernet allows for flexible growth. On a segment-by-segment basis the backbone can be upgraded through the use of LACP (Link Aggregation Control Protocol) to bond multiple Ethernet channels together. For example a 10Gbps segment can become 20Gbps, then 30Gbps, etc. Within the next two years the electronics can also be upgraded to natively support 100Gbps without the need for bonding channels. Similarly the links to end-users are also based on Ethernet and MPLS – albeit 1Gbps rather than 10Gbps. These links can individually be upgraded as needed by bonding multiple 1Gbps links or upgrading to electronics that directly support 10Gbps.



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Offsite data storage will be provided to the end-users on this network. The planned equipment is a NetApp FAS2040C, though we are also testing Terascale. NetApp (<http://www.netapp.com/>) is a well-known vendor of high-end data storage and availability products. The equipment will be located in two of the existing backbone offices (for redundancy): Springfield, VT and Wallingford, VT. End-users will gain access to the storage by using the MPLS backbone network.

The egress points for Internet and Internet2 access are also [REDACTED] and [REDACTED]. These are locations that already exist today and have the DWDM equipment located onsite. Internet access is obtained from [REDACTED] (redundantly in the cities of [REDACTED] and [REDACTED]) and [REDACTED] currently and Internet2 access is handled by Northern Crossroads (<http://www.nox.org/>) located in Boston, MA.

The Cisco telepresence solution provides a life-like interaction between remote locations. Once set-up is complete the system is very easy to operate and does not require IT support to establish or schedule a virtual “call”. Supporting other tools, such as Webex, it allows for a wide range of collaboration options. The required bandwidth for a telepresence call is approximately 15Mbps, which is why we have proposed 1Gbps drops to each end-user and a 10Gbps backbone.

Is the applicant seeking a waiver pursuant to section IX.C of the NOFA so as to sell or lease portions of the award-funded broadband facilities during their life?

No

I. Project Budget

Project Budget		
	Federal Grant Request	Match
Last Mile	0	0
Middle Mile	13,734,560	5,886,240
Total	13,734,560	5,886,240

Project Budget Total: \$19,620,800

Match Percent: 30.0%

Projects Outside Recommended Funding Range:



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- VTel’s proposed Vermont Broadband Enhanced Learning Link budget is within NOFA’s recommended guidelines.

Outside Leverage	
Applicant is providing matching funds of at least 20% towards the total eligible project costs?	Yes
Matching cost detail	<p>Vermont Telephone (VTel) will provide 30% matching funds for the Vermont Broadband Enhanced Learning Link (VT BELL) project. These matching funds will be provided from cash on hand in the amount of \$5,886,240.00, PLUS an in-kind match contribution of \$330,000.00 This is above and beyond VTel's cash contribution. The in-kind match contribution is 500 miles of 192 fiber valued at \$1.25 per foot. VTel’s historical financial documents show we have an average cash on hand between [REDACTED]. The historical financial documents also support an operating income cash flow stream of approximately [REDACTED] per month. [REDACTED] This combination of resources is believed adequate to provide the matching funds.</p>
Unjust enrichment	<p>VTel is not applying for or receiving additional support for the Vermont Broadband Enhanced Learning Link project from any other state or federal government agency.</p>
Disclosure of federal and/or state funding sources	<p>As a small rural independent local exchange carrier, VTel is a participant in certain federal and state universal service programs. We receive direct and indirect High Cost support including High Cost Loop, Safety Net Additive, Interstate Common Line Support and Local Switching Support, for our regulated wire-line telecommunications services. Additionally, we participate in both Vermont and federal low-income reimbursement programs and have several schools and libraries receiving subsidized services through the Schools and Libraries program. As yet, we do not have any customers participating in the Rural Healthcare Program.</p> <p>This application does not contain any elements that are requested on</p>



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	<p>behalf of any school or hospital. The only impact this BTOP application may have on these subsidy programs is that the application is likely to improve services available to Schools, Libraries and health care facilities, which could conceivably result in increased applications to the programs.</p> <p>With respect to the High Cost Support programs, the only impact to the Company's support would be on the portions of this project funded by the Company; not the grant support. The High Cost program is driven by the company's book balances. To date, there has not been any explicit guidance from USAC or the FCC on this, but we believe grants received for capital construction would be considered contributions in aid of construction under USOA 32.2000 and would reduce the book balances, leaving only the portion funded by the company subject to support program. Support received for investments in equipment not supported by universal service programs would be excluded from the support calculations.</p>
Budget reasonableness	<p>VTel used a combination of past experience and 3rd-party quotes in developing the Detailed Project Cost. Where VTel had direct experience historical data was used. In places where VTel would engage third-party services or purchase equipment, budgetary quotes were obtained. As a rural telephone company VTel leverages past experience for estimating in-place construction costs for new projects. By using previous real-world examples of construction we feel our per-foot pricing is a reasonable measurement of in-place fiber</p>



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	<p>construction costs.</p> <p>The fiber construction costs are an aggregate of engineering, materials and installation. The cost varies based on the type of construction (aerial over-lash, aerial new, etc). The total footage of required construction for the Vermont Broadband Enhance Learning Link was calculated from information contained within VTel’s MapCom Graphical Information System.</p> <p>The electronics and other equipment listed in the Detailed Budget upload were based on quotes supplied from vendors including Juniper,Cisco, Terascala and ECI. The amounts of required electronics and other materials were based on the number of potential subscribers. The small items, such as category 5e cabling and RJ45 Ethernet jacks are based on our today's actual purchase costs.</p>
Demonstration of need	<p>Over the past five years VTel has connected to 43 Community Anchor Institutions that were within reasonable reach of our existing DWDM fiber network. We have repeatedly been approached by rural schools and institutions about connecting to our network, and each year we struggle to add a few more, but the capital costs are high and the return on investment is such that this is a labor of love, and not a normal use of investment capital. Our VTel target is we are willing to invest our own funds -- in the cases of some schools this is sometimes several hundred thousand dollars -- if gross revenues from the school over 3 to 3.5 years are approximately equal to our capital costs. In one case we used a several-hop wireless microwave link and even this has cost some \$110,000 and continues to be inferior to fiber.</p> <p>BTOP grant funding at 70% is necessary to help offset the capital costs of connection to the 207 identified Community Anchor Institutions in this project. With this 30%/70% allocation of \$19.6 million we feel, with revenues per site consistent with our current experience -- [REDACTED] with significant marketing and follow-up, we can achieve revenues of approximately our capital outlay over four years. A more formal analysis reveals a return on our \$8.9 million</p>



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	investment over eight years is approximately [REDACTED]. A family business such as ours is willing to make such a long-term investment to assist our goal of more broadband in Vermont. However if we were to absorb the full cost of \$19.6 million, the losses on the \$19.6 million investment would be enormous. By our estimate, the value of the enterprise at the end of year 8 is approximately [REDACTED] million, assuming no major technology changes and flawless execution.
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Funds to States/Territories

States	Amount of Federal Grant Request
Vermont	13,362,560
New York	286,000
New Hampshire	86,000

Funds to States/Territories Total: \$13,734,560

J. Historical Financials

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



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K. Project Readiness

BTOP Organizational Readiness

VTel has thoroughly reviewed the steps necessary for integration of the proposed Vermont Broadband Enhanced Learning Link (VT BELL) network into our existing network and customer base. Our operating service area covers 14 towns and villages in Southern Vermont, serving approximately 35,000 Vermonters, with 20,000 telephone lines.

VTel's customers are not only located within our traditional operational territory but we have vigorously extended our network to reach customers in New Hampshire, Massachusetts, New York and Canada. We have gained valuable knowledge and experience in projects like our \$12.5 million, 1,000 mile, VTel fiber ring which connects Springfield, VT, to One Summer Street, Boston, to 60 Hudson Street, New York, and to 360 Rue Rene Levesque, Montreal, Canada. VTel believes it is uniquely positioned to build, construct and manage the VT BELL network. Our internal support systems and organization will be able to seamlessly assimilate the customers and network of the VT BELL into our company. As a fully functional telephone company, VTel prides itself on its customer service. In the 15 years that VTel has owned and operated its territory, our organization has handled half a million customer calls, made over 100,000 customer visits, and processed over \$300 million of monthly bills and check payments. With VTel's Customer Care organization already servicing customers -- from traditional residential users to highly sophisticated data users such as [REDACTED], [REDACTED], [REDACTED], [REDACTED] and the [REDACTED] -- our back office is staffed to service and support VT BELL and its users.

Construction and Vendor Contracts

VTel, as a small independent telephone company, has historically relied on a team of contractors to augment our construction crews. These vendors become members of the VTel Team and allow us to efficiently and economically complete our construction projects on time and on budget. An example of this teamwork is the 18 months completion of 1,000 mile, VTel fiber ring which connects Springfield, VT, to One Summer Street, Boston, to 60 Hudson Street, New York, and to 360 Rue Rene Levesque, Montreal, Canada. VTel has proactively contacted our supporting contractors and vendors regarding the Vermont Broadband Learning Link network. This group is poised and ready to begin construction. VTel has uploaded their letters of understanding and support as part of our submission. We already know the routes, and the pole



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access contacts, and the contractors, and the town officials, and the equipment manufacturers, and we are 'chomping at the bit' for NTIA authorization to begin.

Customer Base

VTel's existing customer base is a primarily local telephone exchange customers comprising approximately 19,000 access lines. We also operate a regional fiber/DWDM network serving educational and medical institutions and other service providers.

Within the proposed funded service area we currently serve 43 of the 250 locations. [REDACTED]

Licenses, Regulatory Approvals and Agreements

No new licenses, regulatory approvals and agreements are required for this project. The only complex right-of-way was out build under Lake Champlain, and that is long behind us and entirely complete.

SPIN Number

143001315

L. Environmental Questionnaire

Project Description

VTel will be constructing 348 miles of new fiber optic cable on primarily existing utility poles and with minimal amount of underground construction within existing road right-of-way. Our new Wallingford, VT, data center is entirely built. We do not anticipate construction of any new telecommunications towers or satellite dishes. VTel will also utilize existing buildings and structures for the placement of electronics and other related equipment. VTel does not intend to make any material internal modifications.



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Property Changes

The building and completion of the Vermont Broadband Enhanced Learned Link does not require the clearing, excavation or fencing of any property.

Buildings

No new buildings are required for the completion of the Vermont Broadband Enhanced Learned Link.

Wetlands

No construction of VTel's proposed network is expected to take place near existing wetlands. Only 4% of the total land area in the state is identified as wetlands, and no project sites were determined to be in close proximity. All construction will follow federal Clean Water Act, Section 404(b)(1) guidelines and Section 8.5 of the Vermont Wetlands Rules.

Critical Habitats

VTel has identified three species classified as “Endangered” (1. Arctic Peregrine Falcon, 2. Dwarf wedgemussel, and 3. Northeastern bulrush) and one classified as “Recovery”(4. Jesup’s milk-vetch) in the counties where project sites will occur. Their county by county presence is as follows: Windham (1,2,3), Bennington (1), Rutland (1), Windsor (1,2,3,4), Orange (1,2), Addison (1), Washington (1), Chittenden (1), Lamoille (1), Caledonia (1), Essex (1,2), Orleans (1), Franklin (1), Grand Isle (1). As installment will occur almost exclusively on pre-existing utility poles, we do not anticipate any direct impact on these species. However, in order to reduce or eliminate indirect impact, if necessary, we will collaborate with the New England Ecological Services Field Office and the US Fish and Wildlife Service Office. Additionally, within any critical habitats essential for the conservation of these species, as per 16 USC 1532(5), focus will be placed on mitigating steps to offset adverse impacts through avoidance, minimization, restoration, and enhancement techniques.

Floodplain

VTel has been advised that FEMA is currently updating much of Vermont’s flood risk maps through the Map Modernization initiative, but based on the available information at the time of this application, it does not appear that sites will be located in 100-year floodplain designated areas. Again, it is not anticipated that facilities will need building and the fiber will be almost exclusively installed on pre-existing utility poles, thirty feet above ground level. Should any



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potential floodplain issues arise, FEMA National Flood Insurance Program and Vermont DEC, Water Quality Division guidelines will be followed.

Protected Land

The network will not impact any cultural resource or historic properties.

Coastal Area

The proposed Vermont Broadband Enhanced Learning Link (VT BELL) is not within the boundaries of any coastal zone management area(CZMA).

Brownfield

The proposed Vermont Broadband Enhanced Learning Link (VT BELL) network is not located within a brownfield site.



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Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name	File Name	Uploaded By	Uploaded Date
Service Offerings and Competitor Data	BTOP_Pricing_Final(3-26)-without instructions.xls	Guite, Michel	03/26/2010
Network Diagram	VT_BELL_Network_Diagram[3-26].pdf	Guite, Michel	03/26/2010
Build Out Timeline	upload+template+++CCI+++Build-out+Timeline.doc	Guite, Michel	03/25/2010
List of Community Anchors and Points of Interest	Community Anchor Detail.xls	Guite, Michel	03/26/2010
List of Community Anchors and Points of Interest	Points of Interest.xls	Guite, Michel	03/26/2010
Management Team Resumes and Organization Chart	Management Resumes Rd2.doc	Guite, Michel	03/25/2010
Management Team Resumes and Organization Chart	VTel Org Chart.pdf	Guite, Michel	03/25/2010
Historical Financial	VTel 2007 Financials.pdf	Guite, Michel	03/25/2010



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Statements			
Historical Financial Statements	VTel 2008 Audited Financial Statements.pdf	Guite, Michel	03/25/2010
Historical Financial Statements	VTel 2009 Financials (unaudited).pdf	Guite, Michel	03/25/2010
Budget Narrative	upload+template++CCI++Budget+Narrative+ (1).doc	Guite, Michel	03/26/2010
Detailed Budget	upload+template++CCI++Detailed+Budget.xls	Guite, Michel	03/26/2010
Pro-forma Forecast	VT BELL_Pro Forma Financial Projections_FINAL.xls	Guite, Michel	03/26/2010
Pro-forma Forecast	VT BELL Financials Final 8.15 pm.xls	Guite, Michel	03/26/2010
Subscriber Estimates	VT BELL+CCI++Subscriber+Estimates(1).xls	Guite, Michel	03/26/2010
Dashboard Metrics	upload+template++CCI++Key+Metrics+Dashboard[1].doc	Guite, Michel	03/26/2010
Service Area Data	CCI_Service_Areas_Template_-_BTOP(3-26 V2).xls	Guite, Michel	03/26/2010



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Network Maps	Network Maps Final.pdf	Guite, Michel	03/25/2010
BTOP Certifications	FINAL_BTOP Certification.pdf	Guite, Michel	03/25/2010
SF-424 C and D	424cd.pdf	Guite, Michel	03/25/2010
Supplemental Information	Lamoille_Letter_of_Support[1].pdf	Guite, Michel	03/24/2010
Supplemental Information	Henkels & MCCoy.doc	Guite, Michel	03/26/2010
Supplemental Information	VTEL ARRA Support Letter.pdf	Guite, Michel	03/26/2010
Supplemental Information	TQ100323-4999-VTEL-SCHOOLPROJ[1].pdf	Guite, Michel	03/26/2010
Supplemental Information	Juniper Quote.pdf	Guite, Michel	03/26/2010
Supplemental Information	Mt Ascutney Letter of Support.pdf	Guite, Michel	03/25/2010
Supplemental Information	Winooski p1.pdf	Guite, Michel	03/25/2010
Supplemental Information	Winooski p2.pdf	Guite, Michel	03/25/2010



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Supplemental Information	Franklin Central Letter of Support.pdf	Guite, Michel	03/25/2010
Supplemental Information	VTel Support Letter Montpelier.pdf	Guite, Michel	03/25/2010
Supplemental Information	VSCletterofsupportVTEL.pdf	Guite, Michel	03/26/2010
Supplemental Information	CBN letter of support.pdf	Guite, Michel	03/26/2010
Supplemental Information	DOE letter of support.pdf	Guite, Michel	03/26/2010
Supplemental Information	GMP letter of support.pdf	Guite, Michel	03/26/2010
Supplemental Information	Shoreham letter of support.doc	Guite, Michel	03/26/2010
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Supplemental Information	VTVLC letter of support.pdf	Guite, Michel	03/26/2010
Supplemental Information	Waitsfield Tel letter of support.pdf	Guite, Michel	03/26/2010