| Revenue Assumptions | | |
|---------------------|----------------------------------|------------------------|
| Factor | Specific Metric Used in Analysis | Rationale (Cite Basis) |
| Customers Passed | | |
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3 Pages Withheld in their entirety pursuant to FOIA Exemption 4 (5 U.S.C. § 552 (b)(4))

NPV/IRR Table

| | Net Present Value | Internal Rate of Return |
|-------------------------|----------------------|----------------------------|
| Without BTOP Funding | | |
| With BTOP Funding | | |



Balance Sheet

VTA/Sovernet BTOP Round 2 Application With 70% BTOP Funding

| 1 | Forecast Period | | | | | | | |
|---|---|-------|-------|--------|-------|--|-------|-------|
| Assets | Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 | | | | | | | |
| Current Assets | i our i | 10012 | 10010 | TOWLET | 10410 | | Tourt | 10410 |
| Cash | | | | | | | | |
| Marketable Securities | | | | | | | | |
| Accounts Receivable | | | | | | | | |
| Notes Receivable | | | | | | | | |
| Inventory | | | | | | | | |
| Prepayments | | | | | | | | |
| Other Current Assets | | | | | | | | |
| Total Current Assets | | | | | | | | |
| Non-Current Assets | | | | | | | | |
| Long-Term Investments | | | | | | | | |
| Amortizable Asset (Net of Amortization) | | | | | | | | |
| , , , , , , , , , , , , , , , , , , , | | | | | | | | |
| Plant in Service | | | | | | | | |
| Less: Accumulated Depreciation | | | | | | | | |
| Net Plant | | | | | | | | |
| Construction in Progress | | | | | | | | |
| · | | | | | | | | |
| Total Non-Current Assets | | | | | | | | |
| Total Assets | | | | | | | | |
| | | | | | | | | |
| Liabilities and Owners' Equity | | | | | | | | |
| Liabilities | | | | | | | | |
| | | | | | | | | |
| Current Liabilities | | | | | | | | |
| Accounts Payable | | | | | | | | |
| Notes Payable | | | | | | | | |
| Other Current Liabilities | | | | | | | | |
| Total Current Liabilities | | | | | | | | |
| Long-Term Liabilities | | | | | | | | |
| Long Term Notes Payable | | | | | | | | |
| Other Long Term Liabilities | | | | | | | | |
| Total Long-Term Liabilities | | | | | | | | |
| Total Liabilities | | | | | | | | |
| | | | | | | | | |
| Owner's Equity | | | | | | | | |
| Capital Stock | | | | | | | | |
| Additional Paid-In Capital | | | | | | | | |
| Retained Earnings | | | | | | | | |
| Total Equity | | | | | | | | |
| Total Liabilities and Owner's Equity | | | | | | | | |
| | | | | | | | | |

Income Statement

VTA/Sovernet BTOP Round 2 Application With 70% BTOP Funding

| Г | Forecast Period | | | | | | | |
|---|-----------------|--------|--------|--------|--------|--------|--------|--------|
| F | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |
| Revenues | | - | | | | | | |
| 175 | | | | | | | | |
| Broadband Offerings | | | | | | | | |
| Wholesale Data | | | | | | | | |
| Retail Data | | | | | | | | |
| Dark Fiber | | | | | | | | |
| Collocation Other - Transport Services | | | | | | | | |
| Other Network Driven Revenues | | | | | | | | |
| Video Services | | | | | | | | |
| Voice Services (local/toll/long dista | | | | | | | | |
| Other (list specific services) | | | | | | | | |
| Universal Service Fund | | | | | | | | |
| Installation Revenues | | | | | | | | |
| Other Revenues | | | | | | | | |
| | | | | | | | | |
| Total Revenues | | | | | | | | |
| 575 | | | | | | | | |
| Expenses | | | | | | | | |
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| Total | | | | | | | | |
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| EBITDA | | | | | | | | |
| Desussisting | | | | | | | | |
| Depreciation | | | | | | | | |
| Amortization | | | | | | | | |
| Earnings Before Interest and Taxes | | | | | | | | |
| aurings before interest and rakes | | | | | | | | |
| Interest Expense | | | | | | | | |
| | | | | | | | | |
| Income Before Taxes | | | | | | | | |
| 20 | | | | | | | | |
| Property Tax | | | | | | | | |
| Income Taxes | | | | | | | | |
| | | | | | | | | |
| Net Income | | | | | | | | |
| 15 | | | | | | | | |

Statement of Cash Flows

VTA/Sovernet BTOP Round 2 Application With 70% BTOP Funding

| | | | | Forecas | t Period | | | |
|--|--------|--------|--------|---------|----------|--------|--------|--------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 201 |
| Beginning Cash | | | | | | | | |
| CASH FLOWS FROM OPERATING ACTIVITIES: | | | | | | | | |
| served and a constraint of the served of the | | | | | | | | |
| Net Income | | | | | | | | |
| Adjustments to Reconcile Net Income to Net | | | | | | | | |
| Cash Provided by Operating Activities | | | | | | | | |
| Add: Depreciation | | | | | | | | |
| Add: Amortization | | | | | | | | |
| Changes in Current Assets and Liabilities: | | | | | | | | |
| Marketable Securities | | | | | | | | |
| Accounts Receivable | | | | | | | | |
| Inventory | | | | | | | | |
| Prepayments | | | | | | | | |
| Other Current Assets | | | | | | | | |
| Accounts Payable | | | | | | | | |
| Other Current Liabilities | | | | | | | | |
| | | | | | | | | |
| Net Cash Provided (Used) by Operations | | | | | | | | |
| | | | | | | | | |
| CASH FLOWS FROM INVESTING ACTIVITIES: | | | | | | | | |
| Capital Expenditures | | | | | | | | |
| Amortizable Asset (Net of Amortization) | | | | | | | | |
| Long-Term Investments | | | | | | | | |
| | | | | | | | | |
| Net Cash Used by Investing Activities | | | | | | | | |
| | | | | | | | | |
| CASH FLOWS FROM FINANCING ACTIVITIES: | | | | | | | | |
| Notes Receivable | | | | | | | | |
| Notes Payable | | | | | | | | |
| Principal Payments | | | | | | | | |
| New Borrowing | | | | | | | | |
| Additional Paid-in Capital | | | | | | | | |
| Additions to Patronage Capital Credits | | | | | | | | |
| Payment of Dividends | | | | | | | | |
| r dymont of Dividends | | | | | | | | |
| Net Cash Used by Investing Activities | | | | | | | | |
| | | | | | | | | |
| Net Increase (Decrease) in Cash | | | | | | | | |
| | | | | | | | | |
| Ending Cash | | | | | | | | |

2 Pages Withheld in their entirety pursuant to FOIA Exemption 4 (5 U.S.C. § 552 (b)(4))

This upload contains letters of support from partners, community anchor institutions, and potential customers (last mile and cellular providers).

Letter from Vermont Telecommunications Authority Letter from Sovernet Communications Letter from Vermont Department of Information and Innovation Letter from Vermont Department of Libraries Letter from Vermont Department of Education Letter from Vermont Department of Public Safety Criminal Justice Services Letter from Vermont State Colleges Letter from Vermont Law School Letter from New England Telehealth Consortium Letter from Letter from

| Letter from |
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| Letter from |
| Letter from Bill & Melinda Gates Foundation |
| Letter from |
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March 24, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Secretary Strickling,

The Vermont Telecommunications Authority was created in 2007 by Governor Douglas with overwhelming support from the Vermont legislature. The VTA's mission is to ensure that every Vermonter has access to affordable broadband and cellular services. The VTA's strategy has been to create innovative public/private partnerships to achieve our mission. We are pleased to present the NTIA with a Broadband Technology Opportunity Program (BTOP) funding application that will significantly transform Vermont's telecommunications landscape.

The VTA, through a competitive bid process has partnered with Sovernet Fiber Corp, to submit this application which will create a robust fiber optic, mid-mile network in Vermont. The "Vermont Fiber Link Project" will connect hundreds of locations, including schools, libraries, government, healthcare and public safety offices, as well as offer connections to last mile broadband and cellular providers in rural areas. This network will address middle mile needs in the metwork will also connect key institutions such as and the metwork will also deliver this.

and the and the along the route. The network will also deliver this capacity to hospitals, clinics and healthcare providers, enabling telemedicine and e-health applications.

The VTA is fully committed to the project and our staff is prepared to assist Sovernet in the successful implementation. We have committed over \$125,000 in funding to the project and intend to supplement the project with an additional \$2,000,000 in state capital funds, once the FY2011 budget is approved. The Governor has also proposed a complementary, "Backroads Broadband" program with an additional \$3,100,000 in last mile broadband subsidy funding through the VTA to expand the availability of last-mile broadband service, promote rapid adoption of broadband service in newly served areas, and ensure citizens can connect to broadband at affordable rates. The combination of the successful implementation of the Vermont Fiber Link project's mid-mile capacity and the Governor's Backroads Broadband program will ensure that Vermonters can connect at high speeds to the web all across our state.

This project will substantially expand the availability of backhaul capacity that will help meet VTA's broadband and cellular goals. The project has the support of national cellular companies such as and , as well as regional wireless internet providers like For years the state has envisioned that the aggregation of demand from these community anchor customers could leveraged to the address the digital divide between urban and rural areas. The BTOP funding opportunity has become the catalyst for the VTA's efforts, bringing all the major customers to the table, to design a network that not only meets their needs, but will enable last mile broadband and cellular expansions.

We appreciate the NTIA's efforts to establish the BTOP program in a short period of time and support your focus on mid-mile networks as a key tool to further the broadband goals of the nation. Thank you for the opportunity to comment on this application.

Sincerely,

Thomas Murray

Thomas Murray Executive Director



March 25, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Assistant Secretary Strickling,

Through a competitive RFP process, the Vermont Telecommunications Authority selected Sovernet, Inc., as its partner to develop the Vermont Fiber Link project ("VFL"). The structure of this public-private partnership calls for a new subsidiary of Sovernet, Sovernet Fiber Corp. ("SFC"), to develop, own, maintain and operate a 773 mile fiber-optic middle-mile network in southern, central and northeastern Vermont.

The VTA, on behalf of and in partnership with several State of Vermont agencies, Vermont State Colleges, Vermont Law School and all public K-12 schools in the project area has coordinated a consortium of 342 anchor sites that will now have the opportunity to purchase high capacity point-to-point and point-to-multipoint data transport services from SFC at prices that are significantly lower than current prevailing market rates for comparable services. The VTA's letter of support, the application, and the numerous other letters of support from local businesses, economic development agencies, last mile broadband providers and local communities explain and illustrate the ways in which this project will enable the consortium of community anchors as well as local businesses and organizations to use information technology to enhance the services they deliver to the public.

We believe that our application proposes a well designed project that satisfies the fourth goal recently set by the FCC in its National Broadband Plan word for word:

"Every community should have affordable access to at least 1 Gbps broadband service to anchor institutions such as schools, hospitals and government buildings".

Our project includes network connections to 342 community anchor institutions in total. Notably, relative to the FCC's goal, VFL will provide up to 1 Gbps broadband service to public K-12 and <u>all</u> public libraries that are located within the proposed funded service area (PFSA) and that have elected to participate in the consortium. VFL will also be capable of serving

The project does not simply focus on institutions with the largest communications need in the most concentrated areas, as other applicants might. The network reach is very comprehensive in the area it will serve.



VFL will also offer a paradigm shift relative to backhaul opportunities for last mile service providers by offering cost effective, high capacity, access. Locally owned is one example of a wireline provider that will benefit from VFL with

a WISP formed to bring high speed access to a small community that the Incumbent RBOC had long neglected, as another example. Expensive wholesale Internet connectivity has restrained these providers from offering higher speed broadband services that the residents and businesses of these communities are increasingly relying upon. VFL will enable to these providers to offer the improved service needed to sustain economic and societal gains.

In addition to supporting existing providers of last-mile broadband service, VFL will also enable expansion of last-mile service to unserved and underserved communities with the PFSA. The VTA and Sovernet have agreed to create an allotment of data transport service that will be available at economically sustainable prices to last-mile, fixed-location providers that commit to offer broadband service in underserved areas of Vermont.

Lastly, with cellular carriers rapidly deploying 3G, 4G and LTE services, their needs for reliable, high capacity, transport are growing near exponentially. According to a March 24th Stifel Nicolaus analyst report titled, "CTIA wireless and wireless backhaul highlights" it states that AT&T "indicated that 40% of its 3G cell sites …were fed with fiber at the end of 2009…by year end, AT&T expects to carry 90% of its data traffic over fiber". Another Stifel report on March 24th, "Highlights from VZW Mgmt Meeting - Here Comes LTE" reports Verizon Wireless CTO Tony Melone as indicating that VZW will launch LTE in 25-30 markets this year covering approximately 7,000 cell sites, all with a minimum of 50 MB backhaul capacity off of each cell site. This represents a 10 to 20 times backhaul requirement increase over current 3 G platforms.

and the VTA have developed an aggressive price for backhaul service that would be available to any cell carrier that is willing to serve at least 40 new tower sites in underserved areas of Vermont.

Sovernet

This cellular backhaul offer, along with the fixed last-mile provider backhaul offer, will address one of the key barriers that stands in the way of achieving the two principal goals established in 2007 by Governor Douglas and the Vermont General Assembly: that all residences and business in all regions of the state have access to affordable broadband services, and ubiquitous availability of mobile telecommunication services including voice and high-speed data throughout the state.

Sovernet is proud to make a tangible commitment, alongside the VTA, State of Vermont and the NTIA toward the realization of those goals. The construction of a state-of-the-art network that enables affordable broadband in rural areas is an economic challenge, and is only be sustainable with substantial support from the NTIA, an appropriation from the State of Vermont to the VTA, a generous grant from the Bill and Melinda Gates Foundation. and a significant capital investment by Sovernet

We are excited about the VFL application and look forward to discussing it in further detail with the NTIA staff. We believe that our project will offer substantial long term benefits to the people of Vermont and, together with the support of the NTIA, we can deliver those benefits and dramatically improve the communications infrastructure throughout Vermont.

I appreciate your consideration of the VTA's and Sovernet's proposal.

Sincerely,

Rick Kerdall

Rich Kendall, CEO

Cc: Tom Murray, Executive Director, VTA



State of Vermont Department of Information & Innovation 133 State Street, Drawer 33 Montpelier, Vermont 05633-0210

March 22, 2010

Tom Murray, Executive Director Vt. Telecommunications Authority 1 National Life Drive, Records Center Montpelier, Vermont 05633

Dear Tom,

The Vermont Department of Information and Innovation (DII) is the statutory entity authorized to manage the Wide Area Network (WAN) on behalf of the State of Vermont. As the representative of all of the agencies and departments that make up state government in Vermont, we are keenly aware of the need to further develop infrastructure that will support the needs of the various state entities both now and in the future. In fact, universal broadband is critical both to the needs of the agencies and departments but especially for our citizens, who more and more are demanding to interact with their state government electronically. Addressing that demand means that we have to have adequate transport infrastructure more broadly available regardless of where the individuals we serve actually live.

Along with the demand from our citizens for more E-Government services, we are actively working on a number of important initiatives that will, once fully implemented, reduce the overall cost of providing information technology services within state government. Those projects include a data center migration to reduce the number of physical sites where state infrastructure is located, providing a reliable means for departments to conduct video conferencing, and offering Voice over Internet Protocol services across state government. Our investigation of new opportunities including Cloud computing, which also offers the potential to lower the current cost models in place for services that might someday be hosted in the Cloud are dependent on the availability of high-bandwidth connectivity at state sites throughout the state.

The State has significant challenges in obtaining sufficient bandwidth to support the above named WAN requirements. In most locations service offerings are limited to one network service provider so we are constrained in how we acquire these resources at competitive prices. With only two major and a couple of very small network providers in the state, there has been little incentive for those entities to build out the infrastructure in a timely



manner that will enable us to meet our overall goals. The existing services, which are priced in the MB range are not sufficient in terms of bandwidth nor are the prices attractive given what we understand the costs are in regions of the country that currently have more options to consider.

We clearly see this as an opportunity to leverage our existing operational expenditures in the region of the State identified in the VTA BTOP Grant application to obtain the needed bandwidth at an affordable price.

The additional capacity will help the State of Vermont to meet a number of critical service delivery needs which include but are not limited to:

- 1) Enabling the use of more web based interaction with applicants for social service programs, and;
- 2) Providing a video conferencing system that will enable the Court system to hold arraignments and conduct other related activities without the need to transport prisoners from the correctional facilities to a Court, and;
- 3) Enabling the creation of a video conferencing system to provide long distance training and conduct meetings which will reduce the cost of travel, and,
- 4) Enabling us to implement Voice over IP services to replace the antiquated Centrex phone system now in use in State government.

On behalf of the departments and agencies of state government in Vermont, I urge you to view favorably this application by the Vermont Telecommunications Authority for federal stimulus funding.

Sincerely. David

Commissioner and CIO Department of Information and Innovation



State of Vermont Department of Libraries 109 State Street Montpelier, VT 05609--0601

Tel: 802-828-3265 Fax: 802-828-2199 Agency of Administration

March 17, 2010

The Honorable Lawrence E. Strickling Assistant Secretary for Communication and Information National Telecommunications and Information Administration U.S. Department of Commerce 1401 Constitution Ave., N.W. Washington, DC 20230

Dear Mr. Strickling,

I am writing to express my support of the Vermont Telecommunications Authority's Comprehensive Community Infrastructure (CCI) grant application for Round 2 Broadband Opportunities Program (BTOP) funds. The Vermont Department of Libraries is an enthusiastic partner in the Vermont Fiber Link project which will bring fiber optic connectivity to public libraries and other community anchor institutions located in five Vermont counties.

Description of Need

The Department of Libraries (DOL) has long struggled to help public libraries in Vermont find a reliable and affordable source of data transport and Internet access, first when we established dial-up accounts for all public libraries on the State of Vermont network, and later when we encouraged local libraries to obtain Internet access services directly from commercial providers. While some of these providers have added high-speed Internet service and expanded bandwidth, the libraries in this project lag behind because improved broadband connectivity is too costly; in fact, the required telecommunications infrastructure is simply not available. These libraries find themselves at or past the tipping point where public demand and need exceed the capacity of available and affordable bandwidth.

In FY2009 Vermont's 183 public libraries reported a 24% increase in the number of public computer sessions. The 53 libraries in this project reported over 320,000* public computer sessions that same year. Yet with slow connectivity and increased citizen demand, libraries must either turn people away or limit computer time for individuals. Limited time means that citizens do not have enough computer time to complete job applications or create online resumes, search for funding for emerging businesses, or to research higher education or job training. In small libraries with limited hours of operation and where only one or two public-access computers are currently available, connectivity speed is especially critical. More than half of the libraries represented in this application offer public wireless access and we know anecdotally that growing numbers of people – local residents, students, business people, retired citizens, and visiting tourists – are using this service, putting further demands on library bandwidth.

*Note: Only 47 of the 53 libraries reported this data

The Vermont Fiber Link project gives 53 public libraries an unprecedented opportunity to join with other community anchor institutions in an aggregated acquisition of broadband connectivity services. The thousands of users who come to these libraries each week to use online services are faced with

a variety of constraints to equitable access. Current data shows that very few of these libraries reach the recommended speed of 786kbps per workstation for Internet connectivity, and those that do will fall behind as they add more computer workstations. As a result, these libraries do not meet the growing needs of local citizens for high-speed Internet access and bandwidth capacity, particularly those citizens who are most vulnerable: senior citizens, disabled persons, and the unemployed. The lack of high-speed connections in these libraries restricts data transmission and patron use of a variety of online services, including the downloading of audio/video content, and the use of cloudbased services for voice and video conferencing.

This project focuses on communities located in southern and northeastern sections of Vermont including all or part of Bennington, Rutland, Windham, Windsor, and Caledonia counties, and 53 public libraries located in this service area. It targets some of the most economically challenged parts of the state, and selected communities with high unemployment rates (up to 12.1%).Collectively these libraries serve a population of 214.208. or 34% of the state's population, but only seven towns serve populations.

greater than 6,500. These larger libraries are in need of expanded bandwidth to support a growing number of online services and resources. Our smaller libraries are struggling to expand their public computing capacity over the next several years and fiber will make this possible. The Department of Libraries plans to expand online offerings over the next decade, including the development of a state-wide library automation system, and it will be essential for local libraries to have sufficient bandwidth and robust and reliable data services to take advantage of these statewide resources and to communicate with our centralized system.

Attached with this letter you will find a chart with detailed information about the public libraries included in this project.

Role of the Department of Libraries

Our role in this CCI project is classified as "Other."

The Department of Libraries has four regional library consultants who work closely with the libraries in these five counties. Our work in this project includes:

- Identifying libraries eligible for this project;
- Gathering statistics about the individual public libraries;
- Working with the library directors and library trustees to improve library services, including public computing and online resources, and encouraging participation in the Vermont Fiber Link project;
- Collecting letters of commitment from a selection of participating libraries;
- Securing matching funds (see below);
- Creating a centralized e-rate program for participating libraries to ensure sustainability of fiber connectivity (see below);
- Working with the Vermont Telecommunications Authority and other community anchor institutions to identify community needs and identify how high speed Internet access and expanded bandwidth can be used to meet those needs.

Cash Match Funds

The Vermont Department of Libraries comes to this project with the backing and financial support of the Bill & Melinda Gates Foundation which has pledged \$399,000 in matching funds for the libraryrelated portion of this CCI application. The Gates Foundation recognizes the need for high-speed fiber optic connectivity in public libraries, especially in small towns where citizens rely on the public computing centers, online resources and computer training available at their local libraries. Vermonters use public library computer centers to find and apply for jobs, communicate globally, participate in e-commerce, and access e-government services. Our students use library computers and broadband for online research and homework help. In most Vermont communities, the public library is the only local source for free Internet access.

Sustainability

Recognizing that fiber connectivity brings added costs for libraries, the Bill & Melinda Gates Foundation has pledged (upon award of this CCI grant) \$150,000 in additional funds to the Department of Libraries to help with project sustainability. Specifically, they offer these funds so that the Department of Libraries can develop a centralized e-rate program for the libraries that are participants in the Vermont Fiber Link project. These funds will be distributed to us over two years and will give us the means to provide full e-rate discounts for these libraries, giving them the ability to sustain fiber connectivity and absorb expected increases in monthly charges.

It is my hope that NTIA will appreciate both the overwhelming need for this fiber network and the vision that the partners of the Vermont Fiber Link project share for improved services and resources for our citizens.

Sincerely,

Martha L. Reid

Martha Reid State Librarian







State of Vermont Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

March 15, 2010

The Honorable Lawrence E. Strickling Assistant Secretary for Communication and Information National Telecommunications and Information Administration U.S. Department of Commerce 1401 Constitution Ave., N.W. Washington, DC 20230

Dear Mr. Strickling,

I am writing to express my support of the Vermont Telecommunications Authority's Comprehensive Community Infrastructure (CCI) grant application for Round 2 Broadband Opportunities Program (BTOP) funds. The Vermont Department of Education (DOE) is a dedicated partner to this effort and is strongly in favor of developing broadband opportunities for all of our schools throughout the state. This has been an area of constant need and necessity for our schools as we move deeper into the 21st century. Schools are becoming very skillful at using data for informing instruction, and the connection between this data and the DOE is crucial in relaying accurate and reliable information for instruction that is engaging to all students.

We have been involved in past efforts to secure robust broadband to schools but the infrastructure has not been available. This effort is seen by the department as a positive step toward securing that infrastructure and making a significant impact on teaching and learning at all schools. The DOE brings to this effort Title IID and ARRA federal grant funding that is providing:

- Online and distance learning courses for K-12 students
- Professional development for teachers around the integration of technology
- Classroom grants totaling more than \$400,000 that bring much needed equipment and training to rural classrooms across the state.

These programs move our schools further along in providing robust educational environments for students who are increasingly looking for more ways to collaborate, create and communicate with the world at large.

Additionally, Title IID funds have secured a dedicated consultant, Chris Hastings of Powerhouse Consulting, to work on behalf of schools to realize the best possibilities for creating a statewide managed network that will ultimately shave costs from redundant services at each school.



Vermont Department of Education

Many of our schools in Vermont are in rural locales, and the BTOP funding being sought will make a significant impact on those schools that are rural and serve a significant segment of our students who live in poverty-level households. Last-mile connections to a larger infrastructure for these schools is the final step needed to bring opportunities that are equitable to those available to students in more urban areas.

Again, I wish to convey my support to this effort and hope that NTIA can see how this will benefit so many students in our small, rural state. I have asked our superintendency across the state to also support this effort with their examples of need that show specifically how our schools are struggling in areas with insufficient bandwidth. Hopefully, NTIA can see the need and the vision that is apparent in Vermont's work on this crucial service for our schools.

Sincerely.

Armando Vilaseca Commissioner

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State of Vermont Department of Public Safety Criminal Justice Services 103 South Main Street Waterbury, Vermont 05671-2101 www.dps.state.vt.us

March 25, 2010

Tom Murray Executive Director, VTA One National Life Drive National Life Records Center Bldg. Montpelier, VT 05620-3205

Dear Tom,

The Department of Public Safety and the Vermont Telecommunications Authority (VTA) have been engaged in conversations surrounding the use of Broadband Telecommunications Opportunity Program (BTOP) funding for enhancing or developing technology to address the lack of Middle Mile offerings within Vermont.

In general the Department of Public Safety is supportive of all projects that benefit the state and its citizens. The lack of available, dependable, robust and cost effective broadband solutions within Vermont is extremely limited. Broadband solutions are desperately needed throughout the state of Vermont and form the foundation in which other technologies are built upon.

The Department of Public Safety is heavily dependent on technology, and has historically struggled with finding commercially available solutions that meet the requirements of their programs. Since 1947 the Department of Public Safety has been operating our own state wide network to ensure mission critical voice and data traffic is not interrupted and is secure. Over the years the system has been upgraded to meet the needs of the organization and to leverage current technology. We are always looking to improve our network performance so we are positioned for the use of future applications and technologies. Future needs including video conferencing, mapping, and computer aided dispatch upgrades and other data services will continue to push us to evaluate new technology. The networks of the future must factor in the unique needs of the Public Safety entities. We feel the BTOP application and the concepts in the application will provide us with viable alternatives that will enhance our ability to grow technologically. A potential benefit from the development of the proposed network would be enabling video conferencing capabilities for the purpose of facilitating distance learning for law enforcement officers across the state. The proposed network could also potentially enhance the redundant posture of the departments private microwave platform by adding diverse geographic egress points.

In the spirit of cooperation, Public Safety has always participated in ensuring resources are shared including radio communications sites, towers, backhaul and other resources developed for their operation. Robust networks that meet the Public Safety needs for data and voice are very important to the emergency service providers in Vermont. Public Safety in its capacity as the lead organization for Vermont's VCOMM program will continue to evaluate all options that they believe are in the best interest of VCOMM.

Public Safety commits to support the BTOP application process. Public Safety also commits and supports the concept of the application as it has been explained thus far. We look forward to moving our voice and data needs onto a robust platform that will allow for greater transmission of voice and data traffic.

Sincerely,

Thomas R. Tremblay, Commissioner Department of Public Safety



Commissioner Tel 802 244 -8718 FAX 802 241-5377 **Director Vermont State Police** Tel 802 244-7345 FAX 802 241-5551 **Director Criminal Justice Services** Tel 802 244-8786 FAX 802 241-5557 **Director Vermont Emergency Management** Tel 802 244-8721 FAX 802 241-5556 **Legal Counsel** Tel 802 244-6941 FAX 802 241-5377 **Internal Affairs** Tel 802 244-5194 FAX 802 241-5377 **Administrative Services** Tel 802 244-8763 FAX 802 241-5553 **Director of Fire Safety** Tel 802 479-7561 FAX 802 479-7562

VSC

OFFICE OF THE CHANCELLOR

VERMONT STATE COLLEGES

March 15, 2010

Mr. Thomas Murray Executive Director Vermont Telecommunications Authority One National Life Drive Montpelier, VT 05602

Dear Mr. Murray,

The Vermont State Colleges wish to convey our strong support and enthusiasm to the Vermont Telecommunications Authority (VTA) and the other partners in the Vermont Fiber Connect project. We are looking forward to the day when fiber capacity to our sites can increase up to 20 times the current connectivity at 1/20th of the cost. This project represents an opportunity to turn this dream into a reality.

The VTA, working with government agencies, local communities, and Sovernet Communications, a Vermont-based commercial telecom provider, seeks BTOP funding to build a fiber optic network in southern, central and northern Vermont to provide high speed connectivity and increased bandwidth for community anchor institutions. VTA has convened a consortium of partner entities to coordinate and aggregate on behalf of their constituent CAI's. Public libraries are represented on the consortium by the Vermont Department of Libraries. K-12 schools are represented by the Vermont Department of Education. Health care facilities are represented by the New England Telehealth Consortium. Public safety entities are represented by the Vermont Department of Public Safety. The community colleges are represented by the Vermont State Colleges system of which they are a part.

The Vermont State Colleges (VSC) system comprises five institutions located throughout the state of Vermont: Castleton State College, Community College of Vermont (with 13 sites), Johnson State College, Lyndon State College and Vermont Technical College (with campuses at Randolph Center and Williston). Ninety-five percent of all Vermonters live within 25 miles of a VSC institution. The VSC provides affordable, high quality, student-centered and accessible education, fully integrating professional, liberal, and career study.

Enrollment has grown significantly at VSC schools in the last year, particularly at CCV, which is seeing the highest enrollment figures in its 39-year history. This indicates the increasing importance of the

community colleges to Vermonters, especially during these difficult economic times. VSC institutions serve a significant portion of Vermont's population:

- 58% of undergraduates attending college in Vermont attend the VSC.
- 52% of VSC students are the first in their families to attend college.
- 38% of VSC students are over age 25.
- At CCV, 52% of students are over age 25.

We are acutely aware that reliable, ubiquitous broadband is a critical requirement for achieving both our institutional mission and national broadband goals for education in the 21st century. Accessibility and connectivity are of paramount importance to all VSC schools, and particularly to the community college sites, where 22% of CCV courses are offered online to allow students maximum flexibility in coordinating their education with their personal and professional lives. Enhancing the connectivity of the VSC institutions through the creation of this high-speed broadband network will significantly strengthen their ability to serve their communities, which is why VSC is pleased to be a partner in the Vermont Fiber Net project.

Currently, bandwidth availability and cost vary widely across the state and many educational institutions cannot obtain or reasonably afford the amount of throughput required to fulfill educational needs. When the VSC put its network out to bid last summer, only two viable providers emerged, and each of these providers currently faces financial and/or capacity issues. Because of our relatively small state population and population density, providers struggle to make the business case necessary for investment in our state infrastructure. Adding to our critical infrastructure and expanding the players in competition for network customers benefits not only the Vermont State Colleges, it benefits the entire state.

The VSC is currently taking a leadership role in the national Access to Success initiative (http://www.edtrust.org/issues/higher-education/access-to-success). This initiative aims to reduce performance gaps for low-income students. Additionally, the compact between the State of Vermont and the Commission on Higher Education Funding (CHEF) (https://callisto.ccv.vsc.edu/bbcswebdav/xid-836721_4), proposes to increase the percentage of Vermonters who have completed two-year or four-year college degrees from 42 to 60 percent by 2019. Achieving these goals is critical to reducing rural poverty and fostering economic development in the state. It is also critical for preparing an informed citizenry able to compete in an international arena. A robust infrastructure is absolutely vital to delivering programs where and when they are needed, whether in the form of HD video for nursing training or remote back up for large data sets for atmospheric studies. Today, the VSC pays 20 times more than the Vermont Fiber Link's projected cost for services and is delivered 20 times less than the Vermont Fiber Link's projected cost for services and is delivered 20 times less than the cycle of disadvantage endemic to small rural states.

Our commitment to the Vermont Fiber Connect project is this: as the network is built and as our existing service provider agreements expire, it will be a strategic priority to evaluate the opportunity to use the Vermont Fiber Link network wherever possible at the Vermont State Colleges.

Vermont Fiber Link is an important project that will bring affordable, high bandwidth services to many of our community anchor institutions. Additionally, there will most certainly be positive external synergies beyond the benefit to community anchor institutions like the VSC as last mile providers build connections to businesses and individuals throughout the network's footprint. VSC is pleased to support Vermont Fiber Link institutions.

Sinderely, 11110

Timothy J. Donovan, Chancellor Vermont State Colleges PO Box 359 Waterbury, VT 05676 (802) 241-2520

VERMONT LAW SCHOOL



CHELSEA STREET South Royalton Vermont 05068

Tel. 802.831.1237 Fax. 802.763.2663

March 18, 2010

Mr. Thomas Murray Executive Director Vermont Telecommunications Authority One National Life Drive Montpelier, VT 05602

Dear Mr. Murray:

Vermont Law School, the only law school in Vermont, is ranked by US News as being the top environmental law program in the country. We have a student body of 700. The Vermont Law School wishes to convey its support of the Vermont Fiber Link project, and your request for BTOP funding. The project will bring 1GB of fiber capacity directly to community anchor institution locations at rates not currently available

benefit to the Vermont Law School, as a partner in the VTA's consortium along with the other partners: public libraries, K-12 schools, health care, public safety and state colleges.

Academic institutions depend on high quality and high throughput broadband connections at a competitive price to support the computer services within their infrastructure. In the next several years more and more of the computing that took place on campus via an institution's network will shift to the Internet cloud. With this move will come the need for more bandwidth resources.

In the rural region of central Vermont where the Vermont Law School is located, we pay between ten and thirty times the cost of bandwidth in non-rural areas. Currently Vermont Law School pays between the sustainable over time. We are becoming less viable and competitive due to the infrastructure issues. If these issues remain, over time Vermont Law School will not be able to meet the technical requirements of a robust academic environment.

Office of the President and Dean

The bandwidth we purchase is less reliable. We do not have competitive choice in high throughput bandwidth provisioning. We have a choice of two broadband providers, both of whom are in bankruptcy. The landscape is uncertain and our two providers are not offering the stability we require to meet basic business requirements and guarantee services to our students. Truly redundant broadband connections are nearly impossible to achieve due to the underwhelming state of our local (arguably state-wide) telecommunications infrastructure. Fiber is mostly unavailable or owned by a select few companies. A large portion of the state's core rural copper phone lines were established in the 1930s and 1940s and have received minimal maintenance and attention since that time.

An additional concern is the broadband capacity of the surrounding rural population. Our 700 students and 200 faculty and staff find off-campus housing in the community surrounding the law school (15 minute radius). Often cell service or broadband is not available to our students and they are forced to use dial-up connections for legal research and other online learning. Many out of state students cannot fathom that they should ask about broadband and cell coverage when they relocate to this area. We are losing students because of a lack of infrastructure to meet modern students' expectations. Faculty and staff who could telecommute are prevented by poor internet access and our emergency planning is inhibited.

Vermont Law School requires better access to fiber to meet our requirements for growth. While other plans exist, they are flawed and seem to hit an endless stream of challenges. The best possible solution would be funding the Vermont Telecommunications Authority's Fiber Link project. This project would develop our infrastructure rurally, deliver television, phone and broadband services to businesses and households and make central Vermont more attractive to high paying, low footprint technology firms (this would help address the issue of employment for student spouses).

Vermont Law School would greatly benefit from this middle-mile project because it would allow us to access the internet in a robust cost-effective way. Currently, Vermont Law School has

Vermont Law School is precisely the type of anchor institution that will feed the continuing success of a middle-mile project like Vermont Fiber Link. We are pleased to express our support and ask the NTIA to look favorably upon VTA's BTOP grant application.

Sincerely,

Geoffrey B. Shields President, Dean and Professor of Law

GBS/clw





March 16, 2010

Mr. Thomas Murray Executive Director Vermont Telecommunications Authority One National Life Drive Montpelier, VT 05602

Dear Mr. Murray:

I am writing to express full support for the Vermont Telecommunication Authority's (VTA) Vermont Fiber Connect project request for Broadband Technology Opportunities Program funding. I understand that VTA seeks BTOP funding to build a fiber optic network in southern, central and northern Vermont that will bring high speed connectivity and increased bandwidth to community anchor institutions along the routes. VTA has convened in a consortium that includes the Vermont Department of Libraries, the Vermont Department of Education, the Vermont Department of Public Safety, and the Vermont State Colleges. Those partners are the aggregators for community libraries, K-12 schools, state police facilities and tower sites, the individual colleges within the State College system, and the New England Telehealth Consortium (NETC).

NETC is a non-profit organization consisting of a wide variety of experienced partners including research, academic, public, and private healthcare organizations dedicated to telehealth and telemedicine. The consortium primarily encompasses the three northern New England states of Maine, New Hampshire, and Vermont. NETC was formed for the purpose of designing and implementing a private broadband regional telehealth network to link regional health care providers with urban public practices, research institutions, academic institutions, and medical specialists to provide greater efficiency in the sharing of information relevant to healthcare applications, to allow healthcare providers in the region access to a common network for provision of electronic health records, remote medical diagnostics, telehealth, telemedicine, population health database, remote surgery, teledentistry, telepsychiatry and behavioral health treatment and to enable more than 400 NETC healthcare sites in Maine, New Hampshire and Vermont to share information with more than 6000 public and non-profit healthcare providers nationwide. At the completion of the formal network design for its network, NETC will issue public RFPs for the build of the network, as required by the Federal Communications Commission Rural Health Care Pilot Program, which funds NETC.

In Vermont today, the lack of low cost, high bandwidth backhaul poses a significant barrier to the ubiquitous deployment of broadband and cellular services, handicaps economic development,

and also presents obstacles to health care delivery. Vermont can achieve efficiencies and improve health care only with access to technology that is beyond the reach of our less-well-funded institutions requires robust, affordable broadband.

The bandwidth provided by Vermont Fiber Connect will enable NETC participants to meet many of the following needs.

- Health care information is being converted and stored in electronic formats. Without affordable broadband, electronic patient information stored in a distant medical center cannot be shared with a patient's local doctor who has an urgent need for his/her patient's information.
- Health care software applications are expensive. Urban areas can afford robust electronic records and picture archiving systems. Rural areas need access to the information stored in those systems.
- Vermont's small, more rural health care institutions cannot afford the clinical expertise more urban areas can afford. Urban medical centers are willing to make that expertise available to distant clinics and health care institutions through the use of telemedicine, which requires affordable broadband.
- Without affordable broadband connectivity with adequate bandwidth, the benefits of telemedicine and remote diagnostics are not available to small clinics and hospitals...

The availability of an affordable high speed broadband network will enable NETC participants to provide the same level and quality of service to the public as their more urban counterparts. The New England Telehealth Consortium fully supports the Vermont Telecommunications Authority's Fiber Connect project.

Sincerely,

Brian Thibeau President, New England Telehealth Consortium 262 Harlow Street Bangor, ME 04401 207 941-1040

March 8, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

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Department of Education

Commissioner's Office

We further understand that there will be a process for schools to connect as the Vernont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local examples that stand out from our district:





prior to this year, has not had a supervisory union Technology Coordinator. Each school had their own technology assistant that focused more on minimal integration than the overall infrastructure and broad needs of the system as a whole. Many needs have been identified and specific curricular and management resources have been limited or are nonexistent due to our inadequate equipment and limited bandwidth. A few examples include:

- Student Information Database is limited and not being fully utilized.
- Efficient access to special education caseloads can be impacted.
- Audio and video resources, including posting and accessing podcasts and the student use of digital media on a daily basis, are limited by slow connection speeds which inhibit the use of these types of resources.
- Web 2.0 usage, including Wordpress, blogs, wikis, wordle, and skype. Web 2.0 tools lend to project-based learning, student engagement, and improved student retention.
- Cloud computing, greater use of resources such as Google Apps. It is clear that schools will continue to increase their reliance on cloud computing and will need reliable internet connections and speed.
- Access to online coursework science videos, Brigham Young University, etc.
- Interactive videoconferencing (Learning Network of Vermont)
- Access to Vermont Data Consortium we often have problems reviewing data in team settings, as we loose connections often.
- Future use of online portfolio systems for students and staff is planned, but we currently can't take advantage due to the slow speed and lack of reliability of the system.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools. What we ultimately seek is more adequate and reliable Internet access for all our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for significantly greater bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Sincerely,



March 2, 2010

1 ...

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501



Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

Our Supervisory Union now uses the Vermont Data Consortium. In order to better utilize this valuable tool, our schools will need increased through-put in their current Internet connections. Data is a powerful tool for our schools in creating learning environments meeting the needs of all students.

Our students' use, but also in the elementary schools, of real-time media via audio and video resources via the Internet continues to expand. Our teachers clamor for more broadband access in order to download these valuable teaching resources. For our schools to continue to support independent learners and their access to these tools, access must be robust enough to support their use.

More and more administrative data is being stored in the cloud. This is providing operational, financial and environmental benefits. Some examples include accounting and record keeping data, point of sale data from cafeterias and data from State and Federal reporting. More and more of our teachers are providing student projects that utilize Web 2.0 tools for project-based learning. This is providing new opportunities for our students to show what they have learned and to utilize higher order thinking skills. This handson approach has led to more student engagement and improved student retention.

As local resources become more limited, schools are looking for opportunities to provide "over-the-net" learning opportunities. We are interested in fully utilizing the Learning Network of Vermont (LNV), the statewide videoconferencing network that provides virtual field trips to all corners of the globe.

As enrollments decline, schools are faced with balancing educational opportunities for our students with the need to decrease staff and programs. We look forward to availing ourselves of the Vermont Virtual Learning Cooperative, which will provide high quality online courses for students PK-12 and will rely on adequate bandwidth for equity of student access to robust online learning tools and modules.

While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local examples that stand out in our district:



 Our schools and supervisory union is moving to more "cloud computing" services which make management of local resources much more cost effective. Currently, we are cloud computing:

Point of sale software for cafeterias

Accounting services

Assessment and data for all schools

Email system

We could continue freeing up local resources if we had adequate bandwidth to move more services in this direction.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21^{st} century teaching and learning.

Sincerely.

Superintendent of Schools
1-



Montpelier, VT 05620-2501

March 3, 2010

120 State Street

Dear Commissioner Vilaseca.

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

Though broadband Connections is a concern throughout our entire supervisory union, there are four schools that need immediate upgrades to this service. The

With the implementation of a number of Internet based applications district wide, bandwidth at these locations is being taxed beyond capacity. These schools currently operate the following Internet protocol applications:

- Infinite Campus, the district student data management system with teacher desktop access to attendance, grade book, and Parent Portal
- The Surpass library catalog and circulation program .
- Budget Sense Office financial and accounting system .
- Microsoft Exchange e-mail services
- Abby Group food service point of sale
 - School Center's outsoared district and local website services

In a time when we are challenging students to cultivate 21st Century skills and competencies, crucial for them to be competitive and successful in a global digital world, solid and reliable connectivity is a must. The current T-1's to each of these locations do not meet the classroom expectations of participation in Web 2.0 practices, media rich audio/ video production and downloads, or video conferencing such as that offered by the LNV.

At a time when schools throughout the state and within our district are making up to 10% reductions in educational spending we understand that ongoing financial commitments from the district will be required for participation under such a network proposal. However, the primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Sincerely,

Superintendent of Schools



March 5, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501



Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

On a local level, BTOP participation will ensure that we have sufficient connectivity to support the following projects:

1) Continued participation in the Vermont Data Consortium (including expansion into local assessment data warehousing),

2) Increased use of PowerSchool, our K-8 SIS, to support instructional and administrative decision-making,

4) Access to the newly-developed Vermont Virtual Learning Cooperative.

5) Increased use of social media, and web 2.0 tools in classrooms to support 21st-century learning goals.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Sincerely,



03/10/5010 10:10 805-858-0213

February 25, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Kerenca 3 2010 MAR Department of Educotion Commissioner's Office

Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we have an increasing need for high quality, high speed broadband access.

We understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

This three year plan focuses on improved learning opportunities for students, faculty and community members and is dependent on a reliable broadband infrastructure that allows our Vermont learners to have Internet access comparable to learners in and outside the United States.

Students in our district use real-time media resources on the World Wide Web. In order for use to continue to support school based and independent learning access must be expanded and robust enough to support expanded use.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Yours truly

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PAGE 02

March 09, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501



Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

- Student use of real-time audio and video resources via the Internet continues to expand. For schools to continue to support independent learners and their access to these tools, access must be robust enough to support their use. In addition, small schools need the access to high quality instructional opportunities that are not available to students because of limited enrollment for these courses.
- Vermont schools are utilizing cloud computing to support enhanced communications and collaborations between students, teachers, administrators and parents. Cloud computing offers a unique opportunity for schools to decrease the total cost of ownership for technology while offering improved access to information and Web 2.0 tools.
- Vermont students and teachers are utilizing Web 2.0 tools for project-based learning which is having a truly positive impact, as evidenced by increased student engagement and improved student retention.
- Over 90 Vermont schools use and rely upon the Learning Network of Vermont (LNV), a statewide videoconferencing network that provides virtual field trips to all corners of the globe.
- The newly developed Vermont Virtual Learning Cooperative, (funded with Title IID/ARRA federal funds) which will provide high quality online courses for students K-12, will rely on adequate bandwidth for equity of student access to robust online learning tools and modules.

. .

upgrade the existing hardware, stabilize networks, implement a ubiquitous computing model for all students in grades 5 through 12 and provide ongoing embedded professional development. To support this initiative, we have increased bandwidth; however, we are limited because the rural locations of our school limit the telecommunication services that are available to us. Companies will not invest in building out broadband service because the cost is significant and the time to recapture investment costs is too great. It is necessary to have an infusion of public funds that will support the development of broadband infrastructure in these rural areas.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is greater bandwidth and highly reliable Internet access for all of our schools. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for significantly greater bandwidth.

Sincerely,

Superintendent

March 4, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Received MAR 9 2010 Department of Education Commissioner's Office

Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. I hope that the application being submitted to the Broadband Technology Opportunities Program (BTOP) assists the state of Vermont to further develop robust broadband connections for schools and communities. Regardless of the outcome, our schools will require more high quality, high speed broadband access into the foreseeable future.

I understand that there will be a process for schools to connect as the Vermont broadband network is developed and we will seek connectivity for our schools as this process moves forward. I would like

project moves forward. Below are but four examples of the need for improved connectivity to the internet:

- The newly developed Vermont Virtual Learning Cooperative will provide high quality online courses for students K-12, and all schools will have to have adequate bandwidth for student access to high-end online learning tools and modules.
- Student use of real-time data, audio, and video applications via the Internet continues to expand. Therefore, schools must have access to the Internet through connections with adequate capacity and speedy enough to support independent learners and their use these crucial tools.
- Vermont students and teachers are increasing their use of Web 2.0 tools for projectbased learning. This reality results in increased student engagement, improved student retention, and enhanced student learning.
- Over 90 Vermont schools use and rely upon the Learning Network of Vermont (LNV), a statewide videoconferencing network that provides virtual field trips to all corners of the globe.

technology in classrooms. Toward that end, we did a complete infrastructure audit in each ot our schools, have upgraded and replaced wires, switches and servers, and have purchased and installed SmartBoards in every one of our schools.

Our ultimate goal is to make interconnectivity routine and reliable with no high use time 'slowdowns' when demand outstrips the capacity of the network to connect outside our buildings.

We have already begun using point of sale software in some of our cafeterias. Remote billing and paying could lift the burden from parents about sending cash with children for participation in the school's hot lunch program

Just as importantly, if not more so, we could free up more local resources if we had adequate bandwidth. For example, we could reduce the accounting burden at central office if purchase orders could be generated remotely and electronically forwarded from the schools to the central office for processing.

I understand that the district will be required to make ongoing financial commitments such a network proposal, and that a primary objective is to make available greatly increased capacity without significant increases in cost to schools.

Ultimately, we seek more adequate and reliable internet access for all five OWSU schools. We commit to maintain our current level of funding would consider paying slightly more if it would result in <u>significantly greater bandwidth</u>. Improved reliability and expanded bandwidth would provide students and teachers access to the tremendous variety of online resources resulting in enhanced teaching and learning, preparation for life in the 21st century.

Sincerely,



Superintendent



Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

currently uses a wide variety of internet-base resources and tools that would greatly benefit from increased broadband speed. For example, the supervisory union's teachers and students use Google Apps and other Web 2.0 tools as collaboration and productivity tools. Having access to a faster and more reliable broadband will help to expand the current use of these 21st Century tools. Additionally, **Sector** subscribes to and actively uses on-line data collection and analysis tools like the Vermont Comprehensive Assessment Tool, the Northwestern Evaluation Association's Measures of Academic Progress standardized assessment, Case-e, and Grade-Quick Web. Data is a powerful tool for our schools in creating learning environments that meet the needs of all students. As our schools increase their use of these valuable resources, they will need improved throughput in their current Internet connections.

While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local example that stands out in our district:

access the web before significant slow downs occur. These slowdowns make the use of any Web 2.0 tool very difficult. In addition, the speed of this connection in combination with the daily usage cap makes updating the machines impossible. Currently the school's IT manager downloads any operating system or application updates at home and bring them to school on a flash drive.

Quantity of service is poor because teachers cannot use the following resources without system-wide "slow-downs":

- Media rich video and audio resources
- Web 2.0 tools such as blogs, wikis, social bookmarking sites, etc.
- · Learning Network of Vermont videoconferencing resources
- Data management and analysis tools

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Sincerely

Superintendent of Schools

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MAR 1 2 2010 Department of Education

Commissioner's Office

March 9, 2010

Armando Vilacesa, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,

I am writing this letter in support of the State of Vermont Department of Education's involvement in the Broadband Technology Opportunities Program (BTOP). Peter Drescher has been a great advocate for bringing technology opportunities to schools across Vermont, and I would like to thank him and others for their efforts. Further, I would like to describe the current below and how Internet status of the schools of additional Internet bandwidth would be useful for the staff and students at

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Our schools are very rural and do not have a great deal of options for obtaining Internet bandwidth. Each school has computers used for classroom and administrative purposes. Specifically, the following list documents our schools:

| School | Number | Number | Number | Internet | Internet | |
|------------|----------|----------|-----------|-----------|-----------|--|
| | of | of Free/ | of | Bandwidth | Bandwidth | |
| 64 (m) | Students | Reduced | Terminals | upload | Download | |

2 the second

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Each school has its own Watchguard firewall device that filters content and helps protects the internal network from Internet threats. These six devices require separate maintenance, management, support subscriptions, and content filtering subscriptions. The firewalls also facilitate connecting all of our sites to each other across the Internet through the use of branch-

schools to access certain websites, email services, the

student information system, library system, special education software, and human resources/fiscal software.

Overtime, the bandwidth needs of all of our schools have grown at a steady pace. Four years ago

Internet is possible to use for each school, but as the Internet has become more accessible to teachers and students, so has the usage continued to increase. Some of the online opportunities we have begun to take advantage of that will continue to drive our bandwidth requirements are as follows:

- Implementation of Google Apps domains at each school to allow students to collaborate and to communicate with their teachers and peers.
- Videoconferencing using the Vermont Interactive Learning Network (ILN) and other services such as Skype.
- Participating in the Vermont Virtual Learning Cooperative to begin offering and receiving online courses for students.
- Setting up and using other online learning systems, such as Moodle.
- Posting and viewing video content.
- Creating student-run websites.
- Self-hosting our school websites and enhancing them with audio and video content.
- Subscribing to video-on-demand services to enhance the library/media services resource offerings.
- Accessing web-based calendaring tools for our school- and district-level event calendars (sporting events, open houses, etc.)

- Accessing data warehouse-type online applications such as the Vermont Data Consortium and the Vermont Curriculum Assessment Tool.
- Piloting a 1-to-1 laptop initiative, with the plan to broaden it within the next 3 years.
- Web 2.0 tools for sharing and collaboration

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In conclusion, I would emphasize the need for high-speed, reliable Internet bandwidth for all of our schools. Our current Internet bandwidth is adequate for some purposes, but as more students and teachers use it for ever-expanding purposes, we will continue to have the need for more. The Internet service options available to us are slim and unfriendly to tight school budgets. We are excited and hopeful that the BCOP project will culminate in the addition of much needed Internet bandwidth to ours and other schools across the state!

Sincerely,

| Sup | erinte | ndent | |
|-----|--------|-------|--|



March 23, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter we indicate the key benefits and positive impact the BTOP project will have in our community:

- The assessment data. A solid and fast speed connection to this data is essential as the extracts can be exceeding large. Access to this resource greatly reduces the time needed to compile assessment data.
- Teachers and Staff are currently utilizing the LNV and other video conferencing programs to gain access to resources throughout the country and world. Teachers are attending meetings and collaboration opportunities using LNV, thus reducing travel time and costs. Without a high speed connection this valuable resource could not be utilized.
- Teachers and students are utilizing a variety of web based content including videos, Moodles, and blogs. This brings real world interaction into the classroom and creates 21st century learning environments. Without a stable and speedy connection these resources cannot be effectively used.
- Our administration and staff are utilizing Web 2.0 tools to reduce overhead costs within the district. Some examples include Web based helpdesk applications and the Sharepoint storage and collaboration area for administrators. These and other applications are hosted in the cloud and thus a high speed internet connection is a necessity.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.



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Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,

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We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

tasks on these servers. These servers are used throughout the day but we do have noticeable problems first thing in the morning when teachers are accessing attendance and their email.

Our students and teachers have started to use Web 2.0 tools but have found that it is difficult to use these valuable tools because of our lack of bandwidth. We have had to limit the use of video resources and have even found that when we have too many students doing research at the same time we see a significant slow down.

presently houses our Learning Network of Vermont equipment and it is the hope that with more bandwidth this equipment will be used more often and with less problems. An additional drain on the high school bandwidth will come next year when the number of students who will be enrolled in Virtual High School courses will double. Many of our students live in areas without high-speed Internet so the only place for them to do this work is at school. These courses generally require students to access content that uses more bandwidth.

Although we have teachers who have worked hard to find ways around the bandwidth issues, the lack of adequate and reliable Internet access has been a deterrent for many. Even those teachers who have used these Web 2.0 tools in their classrooms admit that they sometimes chose other methods to avoid the frustration and the loss of instructional time.

What we ultimately need is more adequate and reliable Internet access for all of our schools sites. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.





March 23, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

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We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

• Sharing resources electronically throughout the district. Currently, we are unable to do this with our sister schools because they have only one choice for an Internet Service Provider in the area. This creates inequity in our schools and for our students who all feed into the same high school. The students do not have access to real time audio and video. The administrators and support, do not have proper and consistent access to district wide databases for accounting and special education purposes

While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local examples that stand out in our district:



Quantity of service is poor because teachers struggle using the following resources:

- Media rich video and audio resources
- Web 2.0 tools such as blogs, wikis, social bookmarking sites, etc.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Sincerely,

Superintendent of Schools

Information Technology Coordinator

March 24, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

- Vermont Data Consortium. As more of our local teachers are consistently using the Vermont Data Consortium, our schools will need increased through-put in their current Internet connections. Data is a powerful tool for our schools in creating learning environments meeting the needs of all students.
- Student use of real-time media via audio and video resources via the Internet continues to expand. For schools to continue to support independent learners and their access to these tools, access must be robust enough to support their use. The use of high quality video clips and on-line movie sources are being used in many of our classes. These audio and video streams are a very important resource for our students and faculty.
- schools are storing administrative information in the cloud. This is providing operational, financial and environmental benefits. Our student information system, special education database and our central office accounting programs are all web based. This increases the demand for high speed connectivity.
- **Weight** teachers and students are using a variety of Web 2.0 tools for project-based learning, including our course management system, Moodle, which provides teachers a place to share resources, documents and on line discussions for their students. In addition it provides students with access to their assignments, a depository for their work, and an on-line environment to collaborate with others on assignments. It is very important that we continue to provide such web resources to engage students to work independently or in groups on projects outside of the normal classrooms.
- We are actively seeking funds to become one of the Vermont schools districts that use and rely upon the Learning Network of Vermont (LNV), a statewide videoconferencing network that provides virtual field trips to all corners of the globe.

- The newly developed Vermont Virtual Learning Cooperative, (funded with Title IID/ARRA federal funds) which will provide high quality online courses for students K-12, will rely on adequate bandwidth for equity of student access to robust online learning tools and modules.
- A Longitudinal Data Grant was submitted on behalf of Vermont schools from the Vermont Department of Education in December 2009. Should Vermont receive this grant, it will be crucial to ensure 100% saturation.

While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local examples that stand out in our district:

streaming video content in their classrooms. At the current speed we can't always provide enough bandwidth for this activity. We would also like to create and utilize video conferencing in these classrooms but we can't at this time add that burden onto our system. With increased bandwidth we could offer much more in the way of technology innovations.

Other schools in our district are experiencing similar problems. In fact, our other schools have even more problems than the high school. Their bandwidth is less then 2 megs and this limits their ability to access any video conferencing or stream video content.

The lack of bandwidth limits our ability to continue to offer the technology tools that have been laid out in our Technology plan 2010-2012. In addition the lack of bandwidth also limits our ability to offer new tools like Google Docs and other cloud web 2.0 tools for collaboration throughout the district.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Finally,

or our schools. We hope to have

significantly more equipment available for student use and professional development using Distance Learning by the fall of the next school year.

Sincerely,



March 22, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward. With this letter, we accomplish two objectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward.

These bullet points highlight some of the possible areas that you might expand upon and illustrate local examples:

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- Since we do not operate a high school, our students have limited access to alternative education and technical education programs at the secondary level. Improved bandwidth will greatly expand student access to online course work.
- Our current configuration does not provide the ability to construct a wide area network among our schools and the central office creating inefficiencies in operations and duplication of effort in administrative and reporting tasks.
- In most of our rural communities, students rely on dial-up access at home. Expanding bandwidth will address a growing equity of opportunity issue.

- Our current bandwidth will not maintain adequate quality of service for video conferencing. With additional bandwidth we would be able to expand learning opportunities for students by including video content in the curriculum.
- Expanded bandwidth would allow us to deliver a wider array of foreign languages in all of our schools.

We understand ongoing financial commitments from the supervisory union will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for significantly greater bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

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| Superintenden | nt of Schools | |
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March 22 2010

Armando Vilaseca Commissioner Vermont Department of Education 120 State Street Montpelier VT 05 20-2501

Dear Commissioner Vilaseca

This letter is to express our support and commitment to the proposed high speed broadband network being planned for education ibrary and government entities by the Vermont Telecommunications Authority We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities Regardless of the outcome of this work we are in a situation of increasing need for high uality high speed broadband access and will continue to pursue all opportunities

We further understand that there will be a process for schools to connect as the Vermont network is developed and we seek connectivity for our schools as this process moves forward With this letter we accomplish two oblectives: to indicate the key benefits and positive impact the BTOP project will have in our community and to express our need and commitment as the project moves forward

• Our school district is a seven seven seven site and is experiencing an ever-growing need to exchange very large files both internally and with other districts. The drain on bandwidth is growing.

• Student use of real-time media via audio and video resources via the Internet continues to expand For schools to continue to support independent learners and their access to these tools access must be robust enough to support their use

• students and teachers are utilizing Web 2¹ tools for prolect-based learning which is having a truly positive impact as evidenced by increased student engagement and improved student retention

• The newly developed Vermont Virtual Learning Cooperative in which is a participant inded with Title IID/ARRA federal funds which will provide high luality online courses for students K-12 will rely on ade luate bandwidth for e luity of student access to robust online learning tools and modules

• A Longitudinal Data Grant was submitted on behalf of Vermont schools from the Vermont Department of Education in December 200 Department Vermont receive this

grant it will be crucial to ensure 100 saturation While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth we offer the following local

and access to Googles Datawarehouse The video portions of what our students are creating require enormous amounts of both storage capacity and streaming capabilities We understand that ongoing financial commitments from the district will be required for participation under such a network proposal and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools

What we ultimately seek is more ade uate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this protect as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21 st century teaching and learning.

Sincerely 🗆

Superintendent of Schools

March 8, 2010

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

Dear Commissioner Vilaseca,



This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

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- Data is a powerful tool for our schools in creating learning environments to meet the needs of all students. We use the Vermont Comprehensive Assessment Tool (VCAT) to maintain both state and local student assessment data. VCAT links the Vermont Standards with released tasks so that we can better analyze areas of strength and areas where students need more instruction.
- Teachers and students use of real-time media via audio and video resources as well as via the Internet need to continue to expand. For schools to continue to support independent learners and their access to these tools, access must be robust enough to support their use. In

addition, teachers need increased capacity as they are learning 21st century information technology skills to improve student learning.

- Vermont schools are storing administrative information in the cloud. This is providing operational, financial and environmental benefits. We do use Point of Sale data for some of our cafeterias and we also use Goal View for our special education records. This allows teachers to access records from different schools or from home allowing them to be far more efficient. Depending on the broadband available, this is sometimes more challenging for teachers to access files.
- Vermont students and teachers are utilizing Web 2.0 tools for projectbased learning which is having a truly positive impact, as evidenced by increased student engagement and improved student retention. Teachers are beginning to use Web 2.0 tools and will increase their skill level and capacity as will happen this coming Friday as all teachers will participate in professional development activities focused on information technology and communication.
- Over 90 Vermont schools use and rely upon the Learning Network of Vermont (LNV), a statewide videoconferencing network that provides virtual field trips to all corners of the globe. We would like to expand our capacity in this area from only our high school to our elementary schools.
- The newly developed Vermont Virtual Learning Cooperative, (funded with Title IID/ARRA federal funds) which will provide high quality online courses for students K-12, will rely on adequate bandwidth for equity of student access to robust online learning tools and modules.
 Vermont superintendents and curriculum coordinators are currently working to develop virtual learning opportunities for our students.
- A Longitudinal Data Grant was submitted on behalf of Vermont schools from the Vermont Department of Education in December 2009. It is critical that Vermont receive this grant to ensure 100% access for all Vermont schools and students.

While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local examples that stand out in our district:

Here are some areas that indicate our need for broadband services as we move into the future.

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moving to more "cloud computing" services which make management of local resources much more cost effective. Currently, we are cloud computing:

- Point of sale software for some cafeterias
- Goal View is being used for special education documentation and records

It would be fiscally beneficial as well as educationally beneficial to increase supervisory union bandwidth capacity to enable efficiency which would improve with greater speed and allow more students and teachers opportunities to use on line learning tools. We could continue freeing up local resources if we had adequate bandwidth to move more services in this direction.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project as it is developed to fruition and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

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March 22, 2010

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While the benefits of broadband access are many and it would be difficult to effectively describe all the possible aspects of increased bandwidth, we offer the following local examples that stand out in our district:

Here are some areas that indicate our need for broadband services as we move into the future.

- Our Supervisory Union is in the process of meeting our goal of permanently mounted projection equipment in classrooms. When this goal is met by August 2010, there will be a significant increase in demand for on-line content in all of our schools.
- Schools around the country in less rural areas are substantially ahead of Vermont in terms of access to information. This performance gap in how digital information is delivered to Vermont students will have a significant impact on the quality of education we are able to provide.
- The rural isolation of the majority of our communities punctuates the importance of high quality, high speed access to on-line learning and information resources. For example, the

- At many of our schools, quality of service is poor with daily sporadic service. For example, Leland and Gray, our middle/high school serving about 380 students using about 200 computers, often experiences delays in service based on access to on-line resources.
- Quantity of service is poor in most of our schools because teachers cannot use the following resources without system-wide "slow-downs":
 - Media rich video and audio resources
 - Web 2.0 tools such as blogs, wikis, social bookmarking sites, etc.
 - Web based assessment tools
- At the moment several of the schools in the WCSU are considering or are already using Supervisory Union-wide solutions for the following services:
 - Typing/keyboarding software
 - Secure Special Education information services
 - Assistive technologies
 - School and teacher web page management
 - Video conferencing between schools
 - Secure Business office financial and accounting systems
 - Health and fitness related applications

If the aforementioned new services are selected, individual schools will need fast reliable access to our

We understand that ongoing financial commitments from the Supervisory Union will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable internet access for all of our school sites. We commit to using our current level of funding on this project as it develops and would consider paying slightly more for *significantly greater* bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.

Sincerely,



3/24/10

Armando Vilaseca, Commissioner Vermont Department of Education 120 State Street Montpelier, VT 05620-2501

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This letter is to express our support and commitment to the proposed high speed broadband network being planned for education, library, and government entities by the Vermont Telecommunications Authority. We are hopeful that the application being submitted to the Broadband Technology Opportunities Program is successful in assisting the state of Vermont in further developing robust broadband resources for schools and communities. Regardless of the outcome of this work, we are in a situation of increasing need for high quality, high speed broadband access and will continue to pursue all opportunities.

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While there are many advantages to broadband access, it would be difficult to thoroughly describe all of the possible aspects in increased bandwidth. Having stated that let me just elaborate a bit on some of our local examples that stand out in our supervisory union.



- Vermont students and teachers are utilizing Web 2.0 tools for project-based learning, which is having a truly positive impact, as evidenced by increased student engagement and improved student retention.
- **CONTROL 1** In the district use and rely upon the Learning Network of Vermont (LNV), a statewide videoconferencing network that provides virtual field trips to all corners of the globe. This is impeded at times due to internet speed, or the lack thereof.
- The newly developed Vermont Virtual Learning Cooperative, (funded with Title IID/ARRA federal funds) which will provide high quality online courses for students K-12, will rely on adequate bandwidth for equity of student access to robust online learning tools and modules.
- A Longitudinal Data Grant was submitted on behalf of Vermont schools from the Vermont Department of Education in December 2009. Should Vermont receive this grant, it will be crucial to ensure 100% saturation.
- Our students and teachers are utilizing Web 2.0 tools for project-based learning, which is having a truly positive impact, as evidenced by increased student engagement and improved student retention.

Vermont Department of Education

All of these school buildings have been increasing their dependence on Internet based and network based services. The districts shared student information database as well as other shared databases such as special education caseloads, student portfolio database, Vipre internet protection server, and web services (web pages Joomla, Moodle) reside in one town, divided between the two schools which house the most students in the district, thereby reducing the a mount of access other schools have to the internet bandwidth. All of our staff and teachers access all of these databases during the same time our students access the Internet for classes, thereby taxing our bandwidth throughout the day mainly between 8:00 am and 2:00 pm. This creates great concern and frustration from all Internet users as the lack of bandwidth slows their ability to gather and use information in a timely matter.

Specific issues of internet slowdown is when the virus server attempts to push out virus updates, at the same time that teachers are attempting to take attendance, lunch count is being taken and sped doc servers are accessed. Our Internet service has become so taxed at this point, that we have had to risk major updates to be pushed out during the evening, thereby placing our limited resources at risk. In addition, because our district is so rural, our outer lying schools have to share one T1 between two schools, making web 2.0 and standard computing more of a frustration rather than good use of equipment and time.

More recently, our district has acquired a server to house Moodle, an online teaching tool. However, because of the lack of bandwidth, and the teacher's inability to access information at a speed that would not impede their teaching, this wonderful tool sits, currently accessed by only one or two teachers. The same impedance on availability of use for our ePearl (electronic portfolio) server has made the roll out and use of this tool to be virtually non-existent.

Specific curricular and management resources that have been limited to our inadequate, or minimal bandwidth availability include:

- Student information Database, Powerschool access by teachers, students, parents, guardians and administrators.
- Audio and video resources
- Web 2.0 usage, including Moodle, Wordle, blogs, wikis and Google apps for education (which we have not been able to invest time in because of our lack of bandwidth). These Web 2.0 tools lend themselves to project based learning which ultimately leads to better student retention.
- Access to online course work, (Moodle). Virtual learning levels the paying filed for many students, and gives more learning opportunities for rural students and schools with limited funding for teachers.
- Limited interactive conferencing (Learning Network of Vermont, Skype).
- Access to the Vermont Data Consortium/Tetra Data resources. As the demand for data increases so does the demand for faster Internet speed and reliability for efficient use of data to inform instruction.
- Use of online portfolios systems such as ePearl.
- Access to online resources, which are video, based such as Discovery learning, Atomic learning, and other video based learning tools.

Vermont Department of Education

Many of the resources are accessed by all of the schools in our rural Supervisory Union, making the need for more bandwidth and higher speed more of a need and requirement, instead of a desire from all users.

We understand that ongoing financial commitments from the district will be required for participation under such a network proposal, and that a primary objective of the effort is to make available greatly increased capacity and capabilities without significant increases in cost to schools.

What we ultimately seek is more adequate and reliable Internet access for all of our school sites. We commit to using our current level of funding on this project and would consider paying slightly more for significantly greater bandwidth. Our expectation would be significantly improved reliability and bandwidth to allow our students and teachers access to the tremendous variety of online resources appropriate for 21st century teaching and learning.



Sincerely,

p.1

March 23, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information US Department of Commerce/NTIA 1401 Constitution Avenue, NW Washington, DC 20230

Dear Mr. Strickling:

The Town School Board supports the proposal by Sovernet Communications and the Vermont Telecom Authority (VTA) to construct a fiber optic network throughout parts of Vermont including our community of

With Sovernet Communications as a sub-applicant, the VTA is applying for a grant under NTIA's BTOP program for construction of a fiber optic network that provides high capacity Internet access and telecom services. Such a project would significantly improve the amount of affordable bandwidth to the greater **construction** community including its school, staff and students. Adequate, reliable high speed broadband access is a key teaching tool for our school staff. Without it, our students are less prepared for the "real world" and its technologies. Without adequate, reliable high speed broadband access, our students do not benefit from access to all the technology, information and educational resources that the Internet has to offer.

On behalf of our students, staff and community as a whole, the members of the Town School Board support the Sovernet-VTA proposal and thank you for your consideration of this worthy project.

Sincerely,


March 12, 2010

Martha Reid, State Librarian Vermont Dept. of Libraries 109 State St. Montpelier, VT 05609

Dear Martha Reid,

I am writing this letter in support of the proposed grant for high-speed bandwidth/fiber connection. The library needs expanded bandwidth fiber connection because so many people rely on us for a high-speed connection. Our library board of trustees fully supports this endeavor.

Recently we have expanded from eight public access computers to thirteen computers and computer usage was up by one third. They are usually full as long as we are open. Not included in that count is wireless activity that people access even when the library is closed. People are often in the parking lot when I arrive using their laptops. We need more bandwidth to accommodate all our users.

updates and to use the Internet in a time effect manner. People also come in to download pictures of their families and to talk with people overseas. It is more efficient to use our computers since they do not have high speed at home.

In these economic times some people have given up the cost of maintaining Internet services at home and they rely on the library for all their Internet transactions.

able to answer questions people call about.

The Supervisory Union may implement an online schedule of student assignments and not all people have computers. Parents will be able to get online here at the library to get their children's homework. The superintendent and staff fully support this grant.

The library has new services such as downloadable audio books where it is necessary to have high speed Internet. Increasingly, people also need to access video for class instruction and directions. Many staff trainings are online as well. They work better with higher bandwidth. These will increase for everyone in the future. Already there is an increase in distant learning exams. Many of these are taken online and they need a highspeed connection.

Many groups use the library even when the library is closed and often when making a presentation people would like to use the Internet from their laptops. Just last Sunday I saw a lag effect when I was at a group function even though it was the only computer being used at the time.

Increasingly the library will be called upon to bring attention to interactive sites such as the one that will be unveiled about Voices of Lake Champlain on Earth Day, April 22nd 2010. People will be able to share videos, pictures and their stories on this very modern site. The 2.0 features work with high speed, not dial up.

These are just some examples of how high-speed Internet will increase services for people. If you have questions or concerns, please do not hesitate to contact either of us.



Sincerely,

, 23 WW



March 12, 2010

Martha Reid, State Library Department of Libraries 109 State Street Montpelier, VT 05609

Dear Marty,

I am pleased to inform you that the Board of Trustees and I remain committed to participating in the Department's application to the Broadband Technology Opportunities Program. We recognize the enormous value to our community of gaining a fiber optic connection to provide Internet access. Although the Library currently operates with a fairly reliable and fast cable connection, we are planning for a near future when the demand for our bandwidth will outstrip our capacity to provide it.

In our long-range planning process, the staff and trustees of **sector** identified among our primary roles the provision of equitable access to Internet services for all community members, including the expansion of our e-services. The result has been: the purchase of two additional public access computers on our wired network, bringing the total to four; the installation of a wireless network; maintaining our subscription to the Vermont Online Library, for access to well over 100,000,000 articles in periodicals, newspapers, and reference books; continuing to freely offer interlibrary loan service, using the Department of Library's online union catalog; joining the Green Mountain Library Consortium's Listen Up! Vermont for downloadable audiobooks; and upgrading our library software to provide more functionality for both patrons and staff.

| Service measure | 2003 | FY2009 | |
|---------------------------------|-----------------------|------------------|-------|
| | (pre-long range plan) | (7/1/08-6/30/09) | |
| Library visits | 29,098 | 34,027 | +17% |
| Items borrowed | 40,806 | 46,548 | +14% |
| Internet sessions | 3555 | 6269 | +76% |
| Interlibrary loans | 803 | 1044 | +30% |
| Vermont Online Library sessions | 452 | 3226 | +614% |

As our services expand, so our usage increases. Among our notable statistics:

not have the capability to count how many visitors access our wireless network, anecdotal evidence shows ever-increasing usage. Among those who use wireless: since 2002,

preparation for low-income Vermonters four days each week from late January through mid-April. For the second year this year, the preparers are able to e-file tax returns on the spot using our wireless network. In 2009, CVCAC filed returns for 156 clients at the site; this year they are on track to file even more.

While users of the Library's public Internet computers represent all ages and economic levels, three groups in particular stand out: digital natives, and two kinds of digital immigrants. By digital natives, I refer to youth who have grown up "wired," and who cannot imagine life without the Internet. Strangely enough, their very familiarity with the technology is frequently matched by their ignorance about both the limitations and the dangers of the Internet. Library staff therefore encourages these deceptively-savvy youth to learn Internet research skills beyond "googling, clicking, and believing," while reminding them to protect themselves and their futures by safeguarding their privacy. Among digital immigrants (i.e., those who came of age before the advent of the Internet) one group notable for their use of our resources is comprised of adults earning their degrees via distance education programs. We provide many services to these students, who access required class materials - one speech therapy student could not download audio files at home with her dial-up connection - interact with their instructors and classmates with e-mail and social-networking software, conduct research, and take exams on our public computers. A second category of digital immigrants needs a different type of library service: they were not forced to learn technology skills by virtue of their employment, either because of the requirements of their work or because they had already retired. These adults and elders can be particularly intimidated by the thought of approaching technology at all, and many have little or no wish to learn enough to become self-sufficient enough either to navigate the Internet on their own or to acquire a home computer. Library staff therefore acts as the instructor, the expert guide, or the information fetcher as the situation demands. Furthermore, as a public library we have

the monetary resources and skills to purchase, maintain, and upgrade the computers, printers, and networks to provide reliable Internet access.

It is clear that more information and services of all kinds, both governmental and otherwise, are and will continue to migrate to the Internet. Meanwhile, demands on bandwidth increase constantly as new technologies emerge. We consider acquiring a fiber-optic connection absolutely vital to our mission to provide equitable access to information to all members of our companity.

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ries CAI 6 of 32

Martha Reid, State Librarian Vermont Department of Libraries 109 State Street Montpelier, VT 05609-0601

Re: Letter in support for a Statewide Fiber Optic Cable Network

Dear Marty:

I am writing this letter of commitment and support for the Vermont Department of Libraries and the Vermont Telecommunications Authority in your seeking a grant from the American Recovery and Investment Act (ARRA) stimulus funds to build a Statewide fiber optic cable network.

Recent usage trends at the **protocology** Library reflect citizens' concerns about the economy and their changing expectations for technology, especially online and mobile services. In this time of technological change, one of the Library's goals is to provide access to essential 21st century technology for all members of the community. Public computer sessions increased 20% in 2009, and many of those were job related: citizens searched for employment, filled out applications, and edited resumes with technical assistance from Library staff members. Laptop owners filled the reading tables, making use of the Library's wireless connection for Internet access.

It is virtually impossible for staff and patrons to take advantage of the latest information available via video and audio via the Internet.

For this growing technological demand and access to work properly, Vermonters need and deserve a high-speed broadband capability, which can only be satisfied with a fiber optic connection.

We are committed to supporting this fiber optic connection with a minimum of \$100 of budgeted funds.

If you have any other questions please do not hesitate to call or email.

| VΤ | Fiber | Link: | Libraries | CAI | 7 | of 3 | 32 |
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|----|-------|-------|-----------|-----|---|------|----|



with

State Librarian Martha Reid Vermont Department of Libraries Pavilion Office Building 109 State Street Montpelier, Vermont 05609-0601

RE: Broadband Technology Opportunities Program

Dear Martha Reid:

The prospect of expanding the computer bandwidth now available to us and to our patrons at the **sector** is an exciting one. Like libraries everywhere, we have experienced a surge in computer usage here at **sector** with an enormous increase in the number of patrons using our networked terminals and an explosion in the number of people tapping into our wireless network on their portable laptop computers throughout the library building. At present, we are seeing a monthly increase of about 500 in the use of our networked computers; during 2008 we recorded 98,406 computer sessions, and about 106,333 during 2009. Our best guess at the extent of wireless usage is at least half again the number of those using the network.

The library has for years played a special role in assisting those in need, for ours was the first public library in Vermont to host a summer lunch program for children during the weeks when school is not in session and they have no other access to free or subsidized meals. (NOTE: summer with no eligibility guidelines other than age.) residents of both facilities make heavy use of the library during daytime hours when the shelters close. Typically, they go online to search for jobs, housing, and to keep in touch with friends and relatives via e-mail and Facebook. Enhanced graphics and other developments are increasing the demand for greater bandwidth.

Worldwide trends in computer usage are also affecting the services we provide. New this year at the library are programs that rely on internet access such as biweekly tax preparation workshops for low-income citizens, online examinations proctored by library staff members, and online content which are posted on our website at Each new application seems to slow the speed with which our patrons can access information on the internet.

multi-media projection system suitable for interactive classes and web conferencing. The room is in almost constant use by a host of community groups and regional organizations, including the Vermont Department of Libraries and the Vermont Library Association. It is also the site of our own public programs, from summer reading events and film presentations to our guest authors. For these, we very frequently rely on our networked computer system for content and media distribution.

We foresee a future for our library in which an ever-growing emphasis will be placed on internet technology and we are pleased to participate in the Broadband Technology Opportunities Program process. We are confident that the steps we take in the near future will reinforce our ability to stay abreast of new developments in technology as they become available and demand increases. Thank you for your efforts to enable us to take those key steps.

Yours truly,



March 15, 2010 Martha Reid State Librarian Vermont Department of Libraries 109 State Street Montpelier, VT 05609-0601

Dear Martha,

I was excited to hear about the Vermont Department of Libraries' grant application to fund fiber optic Internet connections to Vermont libraries. As the Director of the

Library I am writing to express our support and interest in being one of the sites for this farreaching project.

A fiber optic Internet connection would greatly enhance the Library's ability to meet the growing needs of our community. With the economy's decline, we have seen increased usage of wireless and public computers, as people cancel their home service or embrace new technology for job searching. Combined with our steady influx of regular computer users, visitors, and staff using the online Integrated Library System, our network traffic has progressively been getting busier, and slower.

In addition to supplanting our slow public and staff connections, fiber optic cable would allow the Library to expand services, offering programs in conjunction with other community organizations. For example, having the Library host programs such as: recording and broadcasting of conservation seminars offered by the Vermont Museum and Gallery Alliance; workshops provided by the Vermont Master Gardener Program; and workshops in resume writing and interview skills for job seekers from Parks Place, a local community resource center.

Other improvements would include the ability to download large files, such as audiobooks through 'Listen Up Vermont', a service currently not available in the Library because of our restricted bandwidth. Video conferencing would be another great asset, enabling our librarians to connect with others in the state, thereby avoiding problems with long-distance travel and bad weather.

We understand that this service, though subsidized, would still require the Library to pay This valuable technology will be well worth the financial outlay, allowing for greater access for Library users and the greater community as a whole.

I appreciate all the work the Vermont Department of Libraries has done to further this project. Please get in touch with any questions you or the review committee may have.



VT Fiber Link: Libraries CAI 9 of 32

Paula J. Baker Director



March 15, 2010

Martha Reid, State Librarian Vermont Department of Libraries Pavilion Office Bldg 109 State Street Montpelier, VT 05602

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Dear Martha,

s ago a good number of people asked why I these were residents. I was shocked. Over time I have come to see and love a determined community, often ignored by state officials and held back by the lack of good interstate and intrastate connections. Despite the odds the community has pride and a good bootstrap mentality. But flourishing has been elusive.

Why? And how could this change? And how can this library assist with that? These questions have been with me since 1987. A quick look at some statistical markers show part of the picture:

| Vermont |
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| \$111,200 |
| \$40,856 |
| \$57,433 |
| \$24,210 |
| 6.7% December 2009 |
| |

In 2007, 18 % of all local students received free and reduced lunches; by the end of 2008 that number has jumped to 25%.

While it is clear that the library cannot provide four-lane highways and bring manufacturing companies to help the corner, there are some very tangible opportunities, on a different kind of highway. That highway should

by because the very genius of the Internet is the potential for universal access. Nowhere is this more important than in isolated communities or those with lower education levels and higher unemployment.

We already provide 14 public Internet terminals and wireless access but the needs outstripped our capabilities years ago. There are waits for computers, which have time limits due to the high number of users. These time limits are very challenging for people searching for jobs, filling out applications for minimum wage/no benefits positions in our big box stores, for students taking online courses and especially for those with limited keyboard skills. One day I overheard a job searcher telling another visitor that the state employment office had such limited hours she was encouraging everyone to use the library's resources on her last visit there. In the last eight months our visitor count has averaged more than a 9% increase. Reference librarians have reported a large increase in the volume of questions related to job searches, resumes and application problems.

Improvements in bandwidth would dramatically affect the experiences of library visitors attempting to tap into these much needed resources. With more bandwidth, we can increase the number of users, reduce waiting time and allow everyone to have the time they require for the work they have to do online.

But as compelling as that picture of catch-up is, there is another consideration as well, one which will serve the community in a different way. With the fiber optic capability we would be able to serve as a conduit for distance learning. This is a tremendous opportunity for taking required coursework and for keeping skills and knowledge base current. The second one-way trip to making it difficult for all but the hardiest. Single parent families, or those with fewer transportation options are

the first affected. We are in an excellent position with a wonderful meeting room to make such presentations available to groups or to individuals.

As personal wealth and opportunities have shrunk in the past two years, the library has become a first option for many and for many more, the only option. That is why this project has such profound importance for us - we cannot undo the past, but to give the community opportunities to participate in insuring their own future - well, that is what a public library CAN and should do.

Library Director



March 16, 2010

Martha Reid, State Librarian Vermont department of Libraries 109 State Street Montpelier, VT 05602

Dear Martha,

The would be pleased to participate in the Broadband Technology Opportunities Program. Ultimately our goal is to help connect our community, and in so doing enhance the economic opportunities and vitality of the region. The Board of Trustees is prepared to commit to funding up to the support of this effort.

Our community library has six public access computers, which were used 7,104 times last year. Our computer use increased by 23% over last year, 55% since 2007, and 304% since 2002. Since 2001, Comcast has provided free internet access for our library. Initially, this was a wonderful savings for our library and the connection was extremely fast and reliable. However, over the past two years, we have noticed a marked decrease in speed.

There are times when our patrons are unable to download job applications, fill out online applications or personality surveys for large retail stores. They are unable to connect to federal websites for information, or connect to state websites to apply for unemployment or social services. Because of state cutbacks, Vermont public libraries have been asked to collaborate with the Department for Children and Families, Economic Services, to become designated community partners to help with everything from the initial application process to providing general community support to people in need of these services. All this needs to be done on public access computers in public libraries with low-bandwidth.

Short-term, through participation, fiber optics will allow our patrons to access all the internet has to offer, faster downloads and uploads, distance learning, and reduced waiting time. Long-term, we hope to support the deployment of additional broadband infrastructure and the creation of "hot spots" to reach an underserved population. As part of this project, the second would establish an additional public computer center to serve seniors in our community.

People absolutely need internet connectivity to do anything today: to operate a home based business, find a new job, network with colleagues and business friends, and check e-mail accounts. Public libraries are the first place our low-income patrons learn to use computers, research health issues, apply for jobs, apply for state and federal benefits, and send their children to do homework. In order for ever person to have equal access to success, public libraries need help and increased bandwidth will help increase those opportunities.

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Martha Reid, State Librarian Pavilion Office Building 109 State Street Montpelier, VT 05609

March 14, 2010

Re: Broadband Fiber Optic Grant

welcomes the opportunity to participate in this project with the Vermont Department of Libraries and the Vermont Telecommunications Authority. This letter confirms our commitment to the proposed cost the proposed cost the permonth for the service in conjunction with other costs to be addressed by aggregated e-rate application.

service is available primarily along the state highway corridor and to populated areas; outlying areas, however, remain, under and /or not served! Demographics show a substantial number of poverty level and low income families evidenced by the large percentage of reduced/free lunch students in our elementary school.

The library is the one location in town that offers access to both computers and the internet to residents of all ages. It is an important resource for those who need to further or continue their education. Desk statistics show the increased use of our computers for job seeking, writing resumes, filing applications, larger GED class sizes, internet certificate courses, database and software use, videos being part of the college admission process, and electronic contact between employee and employer during the recent economic downturn. Having the ability to support all of the patrons' computer related uses at the same time is already a need even in our small library.

Currently our catalog is being readied for automation, which is guaranteed to increase circulation and computer use. Computers will soon be added for desk work and Gates grant computers for expanded public access. Fiber optic support for our catalog, web page and databases will address some of the obstacles which deter residents from visiting the library and assist with quicker and easy access to status of materials. Wi-fi use has expanded with the popularity and portability of laptops/netbooks. Our community room is used heavily for educational purposes, clubs and civic groups, tax assistance and some town committees. Broadband capabilities will enable expanded reporting abilities for distance learning and training using the large spectrum of video conferencing and video streaming applications.

Additional yet very significant results of offering broadband and expanded computer access in conjunction with our traditional services (programming, reference and interlibrary loans, media and book loans, meeting space) is the increased economic worth of the library and the improved social fabric for our community with opportunities and shared experiences connected to the expanse of the internet — in one's own town! Yes, broadband connectivity is a good investment for the library and our community's future.

March 16, 2010

Martha Reid, State Librarian Vermont Department of Libraries 109 State St. Montpelier VT 05602



needs of 21st Century residents. However, it is apparent that the needs are larger than currently can be met and that more opportunities through better technology can be found. Fiber optic cable would mean, just in part, the following:

*Higher and more reliable speeds for patrons using the library computers or laptops. As clearly evident in times of economic trouble, the need for online resources increases greatly. Library use is definitely up significantly.

* Increased functionality of the large hall for town board meetings and non-profit groups. With a stage and a screen, fiber optic capabilities suggest the hall could be used for interactive classes, for library programming (such as bringing authors in via Skype; gaming opportunities for young people who do not now frequent the facility), for community viewing of historic events

addition of a lift after years of grantwriting and fundraising.

The Department of Libraries' planned use of an aggregate e-rate application to lower an provides a means to upgrade

internet access to the library and wider community to an extent we had not thought achievable for many years.

We are excited about the opportunity to wed technology and history at th

in a way that potentially injects vitality to a venerable institution in need, and offers Vermonters ready access to essential information, networking, and community life (linked-in and actual).

To: Martha Reid, Vermont State Librarian

From:

Re: Vermont Fiber Link BTOP application Date: March 16, 2010

The Library is committed to being part of the Fiber Optic Grant program spearheaded by the Vermont Department of Libraries. The proposed a month after the installation of the fiber optic cable will be no problem for the Library.



operating budget. As the Library has transitioned from being a subscription library to being a public one, the staff has made every effort to make our services attractive to year-round residents. In fiscal year 2009, the Library circulated an unprecedented number of items (51, 479) and had an all-time high membership of 3,137 people. The current economic climate has made the Library more important than ever

computers are used extensively by people searching for work, updating their resumes, taking online courses to improve their employability, and investigating government benefit programs.

Several years ago, the Library migrated from a server-based ILS to a web-based system. When we made the move, the speed of our basic operations (circulation, cataloging) was improved greatly. However, as our customer base has grown, and as information transmission technology has changed, we now see congestion on our DSL and cable lines that is reminiscent of the old dial-up modems---we wait, and wait, and wait. The circulation system is sometimes so slow that it would be faster for the staff to write down the customers' 14-digit barcode, and the 14-digit barcode on the materials being borrowed!

The Library recently received a **second second seco**

The Bill and Melinda Gates Foundation refers to public libraries as "anchor institutions" in their communities. The

since 2003. We increase our visibility every year and reach out to more of our community. Being part of a successful Fiber Optic Grant program will help us <u>continue our quest</u> to become an essential and vital resource to every resident of

ries CAI 17 of 32



March 16, 2010

Martha Reid State Librarian VT Department of Libraries 109 State Street Montpelier, VT 05609-0601

Dear Martha

I am pleased to offer my support for the collaborative effort of the Department of Libraries and the Vermont Telecommunications Authority, to provide broadband internet access to libraries throughout the state. I also confirm my interest and willingness to participate in the Department of Library's Broadband Fiber Optic Grant, in order to secure fiber optic service for the department of Library.

The Library has long been a reliable provider of high-speed access to vital internet resources and technology to our community. The number of concurrent users on library terminals in a typical day, however, makes increased access speeds through a fiber optic connection highly desirable.

In response to the economic downturn on a national and local level, many in our community have been forced to cancel their personal internet accounts. Our public access terminals are regularly used to search and apply for employment, for self - education, and by patrons operating home-based businesses. A consistent and growing patron demand has prompted the library to increase the number of public access terminals, with grant funding support from the Gates Foundation, further increasing the demand on our already overtaxed network. More terminals, increased features and content on the World Wide Web - all require increasing amounts of bandwidth. Implementing fiber optic services will allow the library to continue to provide a high level of technology options to our community for many years to come.

It is our expectation that a significant gain in bandwidth over our current service will be realized, and the cost of services, estimated

our current communications cost. I further understand that infrastructure needs for individual libraries will be funded through a separate e-rate grant.

I have great hope for the success of this endeavor.

Sincerely

Director

March 11, 2010

Martha Reid Vermont State Librarian Vermont Department of Libraries 109 State St. Montpelier, VT 05609 Re: Broadband grant

Dear Martha,

We are writing this letter of support to you for the grant to extend fiber optic cable to

remained critical to our community over the years but even more so during the last two years of economic downturn. The largest area of growth has been the use of our public access computers and wireless network. In the last two years public computer use is up 74%. All of our terminals are busy all of the time. Last year we booked more than 1700

area many people do not own their own computer and/or cannot afford to pay for

especially with knowledgeable staff who can help them when problems arise.

For us the biggest advantage to increased broadband to the library would be added flexibility to expand our public Internet access. We have in mind the addition of a number of "net books' or the like that would be provided so that users could use any library table or chair to work from. Added broadband would accommodate the expansion of our wireless network to allow for many more users and more computers. We would also be able to create a wireless network for staff which would again provide the flexibility that our data lines do not. Certainly as the need for data rich services and programs increases the availability of more bandwidth would prove invaluable to both staff and library users.

If we can be of any help in this grant process please don't hesitate to ask.



March 16, 2010

Ms. Martha Reid, State Librarian Vermont Department of Libraries

Dear Ms. Reid:

we are interested in would bring fiber optic cable to our library and thus to our town. We are very fortunate to have close collaboration with the Vermont Department of Libraries, who is working with the Vermont Telecommunications Authority to try to bring more of Vermont across the "digital divide". We have many demands for high speed internet. College financial aid forms, federal and state tax forms, searching and applying for jobs online, unemployment filing, email communication, searching for available real estate or apartments to rent, online coursework for post-secondary education -- these are just a few of the services that are essential to people in our area and can only happen with high speed internet.

We also have tourists and travelers who come through at different times and depend on the internet to keep in touch with home. Of course in addition to these demands we use the internet in our library operations, to do cataloging, ordering, interlibrary loans, etc. The library has managed to keep up so far, but there are many times when people come in the door and turn around because all of our five public computers are full. We would like to add more public access but this would require more bandwidth in order to be feasible. The for services with the fiber optic cable is reasonable for the library budget.

We anticipate that there are many others in our community who would benefit from having such an infrastructure available. We have several businesses in town and also the municipal offices that would all benefit from additional internet capacity. This would be an advantage for economic development in our community. Please consider us as a participant in this project.

Yours truly,



VT Fiber Link: Libraries CAI 20 of 32



Martha Reid, State Librarian VT Department of Libraries 109 State Street Montpelier, Vermont 05609

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March 15, 2010

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Dear Martha Reid,

We the Trustees of the second second wish to express our desire to be included in this Fiber Optic opportunity offered by the Vermont Department of Libraries working with the Vermont Telecommunications Authority.

There are also many people passing through town who use our internet connection while sitting in our parking lot or when visiting our building. The ability for most community members to connect to high speed internet from their homes is limited. Most in the community depends on dial-up connections. Those in the village and a few other limited areas have DSL.

We feel that the possibilities for our growth and service will expand in "giant leaps" if we have fiber optic service capabilities to offer. Our library would certainly become an active hub of this community with the added services we could offer our patrons, visitors, tourists and all in our community.

We understand that we should that other costs would be paid using an aggregated erate application.

March 13, 2010

TO: Martha Reid, Head Librarian, State of Vermont, and the Vermont Telecommunications Authority

FROM:

RE: Vermont Fiber Link Project

In consultation with the Board of Trustees of the Library, we hereby endorse and support the Vermont Telecommunication Authority's application to seek Federal Stimulus funds to bring

We clearly understand the importance of allowing libraries, schools, hospitals, and other such entities to be able to communicate in a multifaceted manner to improve communications among them for the benefit of Vermont residents. A system that can handle video conferences, such as fiber optic cable is vital and will be an enormous help to everyone involved.

We understand that, at this time, should the project go through, we are not obligated to subscribe to the service.

Please direct further questions to

Director





March 15, 2010 Martha Reid, State Librarian Department of Libraries 109 State St. Montpelier, VT 05609-0601 FAX: 802-828-2199

Letter of Interest: Fiber Optics for Broad Band Internet Connection

Dear Ms. Reid,

The Library would like to be considered for possible participation in the Vermont Department of Libraries' project to provide Fiber Optics for Broad Band Internet Connection to selected libraries in Vermont. We believe participation in this project would have

The Library has seen more than a 100% increase in computer and internet use in the past 7 years, and has endeavored to maintain adequate resources and staffing to meet the increased demand. On any given day, the computer section is filled with patrons, and several other patrons can be found elsewhere in the library working on their laptops using the WIFI. This figure does not include those who used WIFI. The WIFI option introduced in February 2009 has become very popular. The library is currently looking into replacing and/or adding computers to improve our offerings to the public. All of these would be for public access. (A patron suggested that we keep 2 or 3 of the old IBMs for the floppy drives as many new computers don't have floppy drives.) There is almost always a line for computer use now, and patrons have expressed a clear interest in additional public access computers that are more up to date. (Most of our terminals are at least five years old.) There has also been discussion about whether laptop computers might be a positive addition to the resources made available to the public, and whether they might expand our options for trainings, tutorials, etc... both onsite and in the community.

The library has not had complaints about connectivity, down load speeds, or internet access in general. However, we are aware that the broad band internet connection would improve the public's experience of internet and computer use at **second second second** It might also enhance the staff's ability to use sophisticated online resources to improve the quality of the website and virtual service to the public. Our web site would also be affected, as higher speed might enable us to implement some video projects for online virtual tours and instruction, and perhaps even a selection of stories read by librarians online. We would like to do more training and outreach with supporting towns, and this might enable us to provide enhanced virtual service to those communities, assuming they have adequate speed to take advantage of the resources.

Please accept this letter of interest from the Library. Should the project to bring Fiber Optics for Broad Band Internet Connection to Vermont be successful, we would like to be considered as a potential participant.

Sincerely,



Library Director



March 16, 2010

Martha Reid Vermont State Librarian Vermont Department of Libraries Montpelier, VT 05609

Dear Martha,

The majority of the population is without high speed Internet access; a few have dial-up, but that service is a great disappointment to many. The library was one of the few places that originally installed cable Internet many years ago; as a result, people began to frequent the library more often. A few years back, the library installed Wi-Fi, and the Internet population grew much larger. Internet access not only draws in local residents, but tourists as well. On any given weekend, tourists call inquiring if Internet access, or Wi-Fi service is available.

Of course, the Internet is not the only attraction that draws people to the the second of the best collections in the state of Vermont and well used by local and surrounding residents; our children and adult programs are highly anticipated; the staff's friendly and open attitude makes the library a most pleasant place to be. Of course, there is portion of the population in the second who do not visit library under any circumstances, except to use the Internet. It is those patrons that library would like to keep as permanent members.

During these economic hard times, libraries need to work harder in order to survive and to keep their patrons. Fiber optic cable will definitely help to keep us above the negativity that we are currently experiencing. The library can afford to spend a **service** that has become a way life for the majority of the American people. Fiber optic cable will allow the **service** that the community has come to expect of it.

Please consider the fiber optic grant.





Martha Reid State Librarian Vermont Department of Libraries 109 State Street Montpelier, VT 05609

March 13, 2010

Dear Ms. Reid

We were recently contacted by the Department of Libraries about the possibility of becoming one of the libraries selected to receive a fiber optic connection through a grant from the DOL and the Vermont Telecommunications Authority. As Director of the Library, I discussed this with our Board of Trustees and they are very interested in pursuing this project.

The Library is a good candidate for this service for a number of reasons; as recipients of a Gates Opportunity Grant we have initiated a campaign to fund our technology on a long-term basis and have been extremely pleased with the response from the community. They clearly recognized the central role of technology in the functions of the Library. We now have a six year plan in place to update and replace our equipment and software and feel confident that we can sustain our technology infrastructure over the long term. The fee for fiber optic service is reasonable under these circumstances

The use of our public access computers has increased in the past year and our patrons often remark that our service is slow. Our central location in the service is public access computers (3 a popular place for wireless users to come, as well. Our new Gates public access computers (3 units over 2 years) will replace equipment purchased in the year 2000.

The Board of Trustees is just now embarking on a planned expansion of the Library facility, which when completed will allow us to expand our programs and services for our community and a high speed connection would facilitate this greatly. Please accept this letter as our commitment to pursue a fiber optic connection through the DOL.





March 12, 2010

Ms. Martha Reid State Librarian Vermont Department of Libraries 109 State Street Montpelier, VT 05609-0601

Dear Martha:

It was wonderful to talk to you this week about the very exciting prospect for bringing fiber optic cable to the the Department of Libraries is partnering with the Vermont Telecommunications Authority to include us in this grant proposal, which we heartily endorse.

All the Board members were polled, and we agree that this connectivity will be useful for our citizens, especially in the future as technology requirements change.

increase in the number of users. At this time we do not have space for many public computers but we recognize that people need free access to computers in our town for all kinds of things and we want our library to provide that needed service.

It is our understanding that the initial cost to us is **a centralized** and there is a chance that that amount could be reduced by participating in a centralized e-rate program. This will be important in order to keep our costs as low as possible and, even though the is a stretch for our small budget, we want to provide this service for our community.

Good luck in securing this grant, and please let me know if you need any more information from us.

Again, many thanks for including us.

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| Treasurer | | | |

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March 12, 2010

Martha Reid Vermont State Librarian Vermont Department of Libraries 109 State St. Montpelier, VT 05609-0601

RE: Fiber-optic Internet Grant

Dear Ms. Reid,

The

Library is interested in participating in the proposed Fiber-optic Internet Grant.

Our computer usage has been rising steadily over the last few years. This year alone usage is up 17%. Our space is small so we only can fit in three public access computers. We have a wireless system, which is available 24/7. Many people use the system when we are closed. Usage of with wireless system is up 42% this year over last year, and this number does not include those who use the system when we are closed.

The library is a member of the **sector of Commerce**. We have Chamber business people using our system. One uses it to demonstrate the wireless system she set up here to her customers. A husband and wife, each with separate careers, work at home but use our system to upload and download as their home system is too slow. Others use it when in town for business.

With all of this usage our bandwidth is often used up and the computers slow down. Many of our services require more bandwidth such as using downloadable audio books through Listen Up Vermont, and using the databases in the Vermont Online Library. Patrons are accessing many types of information, which take greater bandwidth such as online photos, videos, video games, online classes and historical collections.

At some point in the future our library will need to expand. In our plans for a future addition to the library, increased space for more computers will be part of the design. Having the option of using a highspeed fiber-optic connection to the Internet may be part of our mix for the library to provide better service to the community.

| The | Library would like to be part of the future | e which the grant for | Fiber-optic Interr | iet |
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Martha Reid, State Librarian Vermont Dept. of Libraries

Dear Martha,

The **Example 1** Library is a small rural, library (town population 2210) and as we have seen increased use in our computers and our wireless connection over the past few years we feel that increased bandwith in our area would benefit our library and community.

Our library is centrally located on the **second second** and welcomes many computer users who either can't afford computer service or live in an area, or surrounding area of **second** where hi-speed access is not available.

One of our busiest times for computer use is during the summer when vacationers and summer residents show up on a daily basis. Some stay for hours working on laptops.

Our statistics show that in 2008 1,385 people used our public access computers, in 2009 the number increased to 1,431 and already this year 291 people have used our computers.

We find that our computers are being used for many reasons: online classes, job searches, on-line shopping, on-line banking, genealogy research, but for the most part to check e mail accounts or various social-networking sites.

Our library has had cable internet access for many years and we are relatively satisfied with it but we do go through periods of very slow connectivity and our wireless connection seems to vary in strength from laptop to laptop (or other wireless devices) and often depends where the device is used in our building. It is our understanding that expanded bandwith would help with these issues. It would most definitely be a benefit to our library and to our patrons. I hope we will see this change in the near future.

| Sincerely, | λ | \sim | |
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| Library Direc | tor | | |

Martha Reid Vermont State Librarian Department of Libraries 109 State St. Montpelier, VT 05609-0601

RE: Fiber-optic Internet Grant

Dear Martha,

I am writing at the recommendation of **and the express our interest in participating in** the proposed Fiber-optic Internet Grant. **Constitution of our constitution** to discuss the fiber-optic proposal with me. I was very excited about the potential of offering this service at the Public Library. I have since shared the information with my Trustees, who are equally enthusiastic. I would like to take a moment to tell you why we think this would be a valuable addition to our Library.

Like so many libraries, the recent economic hardships facing Vermonters has caused a large increase in library usage. The past year has shown a greater number of people using the library and signing up for library cards, as well as increased circulation. The biggest change, however, has been in internet use. Statistics show that 2009 had a 70% increase in patrons coming into the library to use public access computers and Wi-Fi over 2008! This is not including the many patrons who sit outside the library to use our Wi-Fi.

With so many patrons and visitors using our signal, especially during peak hours, we have been finding that our internet service is much slower. So many patrons use this service for audio, video, and photo downloads. These uses are clearly affected by the slower internet speeds. Another consideration is our need for expansion. We have been having space issues for many years. We are looking at expanding our current location sometime in the next 3-5 years. One of the primary needs for expansion is space to offer more public access computers. This change would slow down our existing cable broadband even further.

As technology continues to move forward, we are finding new demands facing the library. We are now beginning to see more distance learners coming in to use our facilities as they continue their education. One of the services we would like to offer in the future is computer stations

equipped for interactive online classrooms and meetings. This would be a wonderful asset for the community. It would also be extremely helpful to library staff. We have only three staff members, and a small budget for travel and education. Internet conferencing would allow us to train and educate staff and interact with peers, without leaving the library understaffed.

Our Board of Trustees feels very strongly that fiber-optic would be an asset to the Public Library. They agreed that they would be willing to support, and budget for, a monthly fee of up to the fiber of the service to our patrons.

If you have any questions, or require any information, to consider the Public Library for inclusion in this grant, please let me know. Thank you for your time and consideration.





Martha Reid, State Librarian VT Department of Libraries Montpelier, VT

Dear Ms. Reid,

I am the Director of the **Constant Constant Public Library.** I am writing to you in regards to an opportunity to have fiber optic cable brought to **Constant Constant Constant**

Vermont is located in the

Fiber optics is an exciting proposal for our community because most of our residents do not have DSL or wireless service. The library has seen a 15% increase in patron visits this year. Homeowners, business owners, students, and tourists use the high speed and wireless access. Specific areas of interest for our community have been; email/facebook, access, job search, resume' writing, research and filing taxes.

Although we have DSL and wireless access at the library, often times the service is down or needs to be reset several times throughout the day.

I believe fiber optic cable would bring unlimited opportunities' for our patrons and our community with its high speed and high quality access to the internet. The proposed cost of **sector access** for services over the fiber optic cable is worth the benefits brought to our library and will be funded through our operations budget.



16 March 2010

Martha Reid, State Librarian Vermont Department of Libraries 109 State Street Montpelier, VT 05601-0601

Dear Martha:

The Library is very interested in participating in the project to bring fiber optic cable to libraries.

Library serves a population of roughly 2000. The library is located in historically significant is a close

not the geographic or business center of town, but co-located with the school and the Town Office.

The library is open 23 hours/week, has approximately 600 patrons and circulates approximately 3300 materials. In addition to a weekly Storytime for young children, we provide programs for adults, school-age children, and young adults. We have 4 public computers. In FY 09, 500 adults and 676 children attended 145 programs and the computers were used 664 times.

Funding is about equal through taxes and fundraising by the publicly elected trustees.

As a small library we do not have a large budget for our computers, and yet many of our patrons have no other high speed service. Our computers are used for information gathering, on-line courses, employment searches, resume writing, and by a local homeschool group. Several patrons bring their laptops to use our cable service.

We can envision, with advanced technology, providing additional services such as teleconferencing **additional services**, web seminars, and college and graduate level courses.

We recognize that we would be responsible for the cost of approximately

for fiber optic cable services, and feel that townspeople would gladly support that increase in our technology budget at next year's town meeting. We also understand that other costs will be paid using an aggregated e-rate application by the Department of Libraries.

As the trustee co-chair wrote to other trustees, "We want our patrons to have access to the information that they need/want. And their town library is a place to seek that information as all libraries are. We also want **see the seek** the library doors---access to technology brings folks to us and then we can also make available access to printed material."

We hope you will consider our request and include us in your grant application.

Sincerely,

Library Director

BILL& MELINDA GATES foundation

P0 Box 23350 Seattle, WA 98102, USA V206.709.3100 F206.709.3180 www.gatesfoundation.org

March 10, 2010

Martha Reid State Librarian Vermont Department of Libraries 109 State Street Montpelier, VT 05609-0601

Thomas Murray Executive Director Vermont Telecommunications Authority One National Life Drive, Records Center Building Montpelier, VT 05620-3205

Dear Ms. Reid and Mr. Murray,

The Bill & Melinda Gates Foundation is pleased to award the Vermont Department of Libraries (VDL) a grant of \$399,900. As the lead applicant, the Vermont Telecommunications Authority (VTA) will be submitting a proposal on March 15, 2010 to the National Telecommunications and Information Administration (NTIA) under the Broadband Technologies Opportunity Program's (BTOP) Comprehensive Community Infrastructure funding category. We understand VDL will be a partner in VTA's BTOP proposal. The foundation's grant funds are to be used to match a portion of the BTOP project costs attributed to the extension of the proposed fiber optic cable network to public library facilities as middle mile community anchor premises.

The foundation's grant is contingent on VTA receiving a BTOP award from NTIA and on the execution of a grant agreement between VDL and the foundation. The grant will be paid in two equal installments to VDL. The first payment will be disbursed shortly after VTA's receipt of an official BTOP award notice, and the second and final grant payment will be disbursed approximately one year after the first payment.

In addition to committing grant funds to support NTIA's matching requirements for BTOP, the foundation is awarding an additional \$150,000 for E-rate application training and support for local libraries participating in the BTOP project. These funds are intended to raise participation rates in the federal E-rate program to create a sustainable source of funding for recurring connectivity costs. These additional grant funds are also contingent upon VTA receiving a BTOP award from NTIA and a fully-executed grant agreement with VDL and the foundation.

We are pleased to support VDL and VTA in their application to NTIA and their efforts to meet community needs through high-quality technology and broadband Internet access in Vermont.

Sincerely,

Allan C. Golston

President U.S. Program

Cc: Jill Nishi, Deputy Director, U.S. Libraries Initiative

March 25, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Mr. Strickling:

I am writing in support Vermont Telecommunications Authority and SoverNet's proposal to construct a high-speed fiber optic network in rural Vermont.

As a long-time Vermont resident, I am familiar with SoverNet's commitment to deliver quality voice and data access to Vermont. As a customer, I have experienced their ability to put that commitment into action. It is without hesitation that I recommend that the NTIA take positive action on VTA/SoverNet's grant proposal. If you have any questions, please do not hesitate to contact me at chris.riddell@goddard.edu or 802-322-1679.

Sincerely,

Associate Dean of Library and IT Services

MAR-22-2010 14:56 FROM:8

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P.2/2

March 22, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce/ NTIA 1401 Constitution Avenue, N.W. Washington, DC 20230

Dear Mr. Strickling,

of Sovernet Communications has informed the Selectboard of their proposal with the Vermont Telecom SAuthority to construct a fiber network throughout parts of Vermont, including here in

For many frustrating years our Selectboard has researched all available means to provide true high speed Internet service to our residents. Current coverage is fragmented with much of the service unreliable and sizable portions of our complex geography served only through dial-up modems or very expensive satellite connections. Year by year we see this lack of universal coverage and easy access to broadband creating an economic hardship for our working residents, many of whom rely on their home based businesses for a living.

This disparity of broadband coverage is also creating essentially two classes of real estate. Realtors are reporting that potential home buyers do not even want to see locations that don't have access to high speed Internet. To add salt to that wound, the nearest public wi-fi service is over five miles distant at the and the

will go far in bringing

Having high speed Internet made available at the proposed locations of the located in our town

Community Center in the at last, truly into the information age.

The members of the Science Science Science on behalf of the residents of urge you to give your strongest consideration to Sovernet and Vermont Telecom Authority and their grant proposal presented to the NTIA. Thank you for your time.

Sincerely. Selectboard


Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Assistant Secretary,



Many rural households, businesses, and indeed, whole communities in our region lack access to any broadband. It is my un-

This will, in turn, allow us to offer broadband service to our customers at faster speeds than are possible today at competitive, affordable rates. For this reason, I am enthusiastically supporting this project.

Please let me know if I can be of further assistance.

Sincerely,



General Manager



March 16, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Secretary Strickling,

l am writing to express

strong support for the Vermont Telecommunications Authority (VTA) BTOP CCI application for its "Vermont Fiber Link" project which will enable the development of a high-capacity fiber middle-mile network in Vermont.

Preliminary conversations with the VTA and its partner carrier, Sovernet, regarding use of Vermont Fiber Link for backhaul have been quite encouraging. We are confident that we will be able to reach mutually acceptable terms for a Master Service Agreement under which

located

within Vermont Fiber Link's project area. For this reason, we support the VTA's application, as we believe that the improvements and expansion of our network that this project will enable are precisely the kinds of public benefits that Congress envisioned when it created the BTOP program to jump-start America's economy.

Thank you for the opportunity to comment on this application. Feel free to contact me with any questions.

Most sincerely yours,

Cc: Thomas Murray, Executive Director, Vermont Telecommunications Authority

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March 8, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Mr. Strickling:

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I am the president of the

the application of Sovernet Corporation, our supplier, for a grant from your department.

a a lastat

supports this grant application enthusiastically. A successful outcome would create a classic and clear illustration of cooperation between private and public organizations providing broadband to rural areas.

92

Sincerely

March 25, 2010

E-Mail and U.S. Mail

Thomas Murray, Executive Director Vermont Telecommunications Authority One National Life Drive Records Center Building Montpelier, VT 05620-3205

Re: VTA Application for BTOP Funds For Vermont Fiber Link

Dear Mr. Murray,

supports the BTOP CCI application filed by the Vermont Telecommunications Authority (VTA) for its "Vermont Fiber Link" project. The Vermont Fiber Link project would design, build, own and operate a high-capacity fiber middle-mile network in Vermont to serve rural areas which are under-served or even unserved by connecting community anchor institutions.

As you may know, universal wireless coverage (both voice and data, and expansion to broadband) has been and remains one of the highest priorities of Governor Douglas and the Vermont legislature. In fact, the VTA was created specifically to establish public-private partnerships that enable realization of this goal. Vermont Fiber Link is a cornerstone project for achieving this goal. As the name connotes, it utilizes fiber, which is the ideal technology platform for serving these rural areas, and should provide the backhaul bandwidth wireless carriers need to provide broadband services to these rural areas.

our company has made significant progress in extending mobile voice and data service in rural Vermont, gaps in our coverage remain. As a result, we are very supportive of any initiative that helps enable network expansion in Vermont.

For this reason, **and the set of the set of**

Most sincerely yours,



March 25, 2010

Lawrence E. Strickling

Assistant Secretary for Communications and Information

U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Assistant Secretary Strickling,

I am writing to express strong support for the BTOP CCI application by the Vermont Telecommunications Authority (VTA) for its "Vermont Fiber Link" project, which will enable development of a high-capacity fiber middle-mile network in Vermont.





we support the VTA's project and encourage NTIA to fund it.

Thank you for the opportunity to comment on this application. Feel free to contact me with any questions.

Most sincerely yours,



Cc: Tom Murray, Executive Director, Vermont Telecommunications Authority Rich Kendall, CEO, Sovernet Communications March 25, 2010

Mr. Thomas Murray Executive Director Vermont Telecommunications Authority One National Life Drive Montpelier, VT 05602

Dear Mr. Murray:

The support the Vermont Telecommunications Authority (VTA) and the other partners in the Vermont Fiber Link Initiative. The project will bring fiber capacity to locations where it is not currently available and is required to serve Vermont's broadband needs.

The VTA, working with government agencies, local communities, and Sovernet Communications, is seeking BTOP funding to build a fiber optic network in southern, central and northern Vermont to provide high speed connectivity and increased bandwidth for community anchor institutions. VTA has convened a consortium of partner entities to coordinate and aggregate on behalf of their constituents.

is pleased to support Vermont Fiber Link Initiative.

Sincerely,



March 19, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

The **Vermont Fiber Link** Project, aims to lower the cost of telecom and Internet services for homes, businesses, and anchor institutions in throughout much of Vermont. Target investments in Middle Mile telecommunications infrastructure enabled through the Vermont Telecom Authority proposal will accelerate the adoption of broadband in unserved and underserved communities.



The project will provide strategic access to fiber based bandwidth alternatives, as well as increased reliability, speed and options for unserved and underserved homes, businesses and institutions that are not being reached with wireline technology (DSL and cable). Access to the Internet is essential for the economic development of the region. It will help create jobs and bring in revenue from outside the region. It will enable anchor institutions to better serve their communities.

is committed to collaboration with other Internet service providers, local and state governments and regional business support organizations. We are committed to providing reliable and affordable Internet technology at the fastest speeds. We recognize similar commitments in the **VTA Vermont Fiber Link application**.

Sincerely,

March 20, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information U.S. Department of Commerce / NTIA 1401 Constitution Avenue, N.W. Washington, D.C. 20230

Dear Sir,

I am writing to express my full support for the American Recovery and Reinvestment Act grant proposal being submitted by the Vermont Telecom Authority, under the name of Vermont Fiber Link, which is partnering with Sovernet Communications to construct and operate the network. My company provides

connectivity gap for municipalities, businesses and families in this region. With near and long term future connectivity in mind, now more than ever, adequate and affordable wholesale bandwidth is critical if we are to have the necessary resources to meet future connectivity needs.

Many rural communities in our region lack affordable access to reliable broadband. It is my understanding that this project will make more affordable bandwidth available to my company, which will in turn allow us to offer broadband service to our customers at faster speeds than are possible today, while maintaining competitive, affordable rates. For this reason I am enthusiastically supporting this project.

Please feel free to contact me if I can be of further assistance.

Sincerely ~~ >

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Lawrence E. Strickling

Assistant Secretary for Communications and Information

U.S. Department of Commerce / NTIA

1401 Constitution Avenue, N.W.

Washington, D.C. 20230

Dear Sir,

Sincerely,

I am writing to express my full support for the American Recovery and Reinvestment Act grant proposal being submitted by the Vermont Telecom Authority, which is partnering with Sovernet Communications to construct and operate the network. My company provides wireless

Many rural communities in our region lack affordable access to reliable broadband. It is my understanding that this project will bring affordable bandwidth to my company, which will in turn allow our company to offer broadband service to our customers at a lower prices and faster speeds not possible today. For this reason I am enthusiastically supporting this project.

Please feel free to contact me if I can be of further assistance.



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March 20, 2010

Rich Kendall, CEO Sovernet Holding Corp. 5 Canal Street Bellows Falls, VT 05101

Re: Project Funding Commitment for the Vermont Fiber Link BTOP project

Dear Rich,



Please feel free to share this letter with National Telecommunications and Information Administration in support of the VTA's application for the Vermont Fiber Link project.

Should you need anything further at this point, please do not hesitate to contact me.

Thank you,



March 19, 2010

Lawrence E. Strickling Assistant Secretary for Communications and Information Broadband Technology Opportunities Program National Telecommunications and Information Administration U.S. Department of Commerce HCHB 4812 1401 Constitution Avenue, NW Washington, DC 20230

-24

Dear Sir,



BTOP program staff should feel free to call with any questions regarding this letter of confirmation.

Regards,



Cc: Rich Kendall, CEO, Sovernet