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## PROJECT NARRATIVE

### VERMONT TELECOMMUNICATIONS APPLICATION OUTREACH PROJECT

#### Project Purpose

The Vermont Telecommunications Application Outreach Project will carry out its objectives through the formation of the Vermont Telecommunications Application Center (VTAC). VTAC will be dedicated to assisting small businesses, non-profit organizations, and individual entrepreneurs, most particularly those located in the State's rural communities, to increase their viability by taking advantage of telecommunications technology, services and products. In providing these services, VTAC is dedicated to increasing economic development primarily in rural areas throughout the State of Vermont. Furthermore, it will provide a neutral information resource for State Agencies and the Legislature when telecommunications issues or legislation comes before them.

*Identifying the Problems:* The chief problems the VTAC project will address are:

- inequities in distribution of telecommunications application information in a rural state of small, scattered communities. Vermont's rural communities are underserved.
- the need to educate the small businesses and individual entrepreneurs, who represent a critical economic sector, in the most effective application of telecommunications technology tailored to their individual needs.
- the need for a central and independent resource to educate end-users in the best practices in telecommunications applications.

Vermont has more non-profit groups per capita than any other state. These are often indispensable to the communities they serve. It is therefore important that VTAC also educate these groups on how to apply telecommunications technology to improve their service.

A primary purpose of the VTAC project is to make Vermont more attractive for small business startups in rural areas, by assuring adequate use of telecommunications facilities. In a rural-dominated state like Vermont, economic well being rests on sustaining small businesses in rural areas and attracting new employers. Telecommunications development makes this possible but only insofar as business owners know when and how to use it. VTAC was created to facilitate education in the use of telecommunications technology essential to these businesses.

Another purpose for the VTAC project is to provide a neutral source of information, unprejudiced by vested interests, whenever telecommunications policy issues or dockets come before the Governor or Legislature. As VTAC is successful in expanding the use of telecommunications infrastructure, it will be a useful resource in the State's efforts to attract new businesses. Government agencies can also learn from advanced users of telecommunications applications. In fact, a successful pilot project with the Agency for Human

Services was a strong impetus for the creation of VTAC (See Attachment D).

**Background:** VTAC was formed when a 3-year study by the non-profit Vermont Business Roundtable (see Attachment B) showed a wide gap between the telecommunications technology that is available and the level of understanding (and use) of it by government, non-profit organizations, small businesses and individual entrepreneurs. VTAC is dedicated to providing the education necessary to close that gap.

Vermont is essentially a collection of rural communities. It has 9 cities, 236 towns and 60 villages. Approximately 77% of Vermonters live in rural areas. Among the 50 states, Vermont ranks 43<sup>rd</sup> in geographic area (9,615 square miles) and 49<sup>th</sup> in population (585,000). It ranks 35<sup>th</sup> in average annual pay (\$25,583) and 50<sup>th</sup> in State and Local Government Revenue.

It is a State whose economy depends greatly on small, entrepreneurial businesses. In terms of average annual employment, excluding State Government, 42% of Vermont's workers are employed in service industries and an additional 28% are employed in retail trade; a total of 70% of the population. Of the 18,000 full-time business firms with employees in Vermont, 97.5% are small businesses. There are also approximately 35,000 full-time self-employed persons, for a total estimated full-time small-business population exceeding 53,000 firms.

The TIIAP grant will be used to help these businesses survive and grow by introducing them to, and assisting them in implementing, information technology that will help them be more profitable. The creation of VTAC speaks directly to the need for collaborative planning by major stakeholders in the area of telecommunications applications noted as a problem in the Vermont Statewide Collaborative Network Project, funded by a 1996 TIIAP grant.

**Addressing the Problems:** VTAC's mission is to provide workable and achievable solutions. It has funding from a broad mix of public and private-sector partners and is the outgrowth of a joint effort by the State Public Service Board and Public Service Department, telecommunications providers and private and public users. It is designed:

- to make a reliable source of up-to-date knowledge accessible across Vermont,
- to develop materials tailored to the needs of less advanced users, and
- to broker meetings between them, advanced users and the vendors/service providers who can apply those technologies and the associated products and services.

Emphasis will be placed on workable, efficient, tested solutions, tailored to specific needs. The project does not propose constant new design efforts; rather, it proposes enabling users to employ existing techniques in the most appropriate and cost-effective manner.

The project will use a professionally designed website, providing online access to the VTAC staff, tutorials, products, services, and "chat rooms" for discussions among guest experts and users. It will also provide a constant stream of information on new telecommunications developments. This information also will be available in a variety of media other than the website to suit the needs of a range of users:

- through dissemination of written “White Papers” and tutorials to a mailing list of business owners and home entrepreneurs (see Budget Narrative, 6h)<sup>1</sup>
- through interactive presentations given over the Vermont Interactive Television network, which has twelve sites giving full coverage of the State (6f),
- through lectures given by the staff at locations outside the urban area, and
- through videotapes and cassettes (6h).

Business owners in Vermont are likely to take advantage of information sessions or workshops. According to a recent study by the Small Business Development Center, 60% of the businesspersons they serve attend programs at their Center (see Attachment B).

**Measuring Success:** VTAC has selected an Evaluation Consultant (6f) to assure the development of a rigorous, quantitative evaluation plan. (See biography in Attachment E). Measurable “milestones” will be required for every task undertaken by VTAC.

The website has significant measurements built in, so VTAC can determine the number of “hits” in total, as well as “hits” per specific page and topic (see Attachment E).

The project anticipates helping businesses assure their viability and grow. Throughout the three years we will measure the success of our suggestions if implemented by the businesses. ✓

The project also anticipates contributing to the increase of new small and entrepreneurial businesses in Vermont. The Executive Director will work with the State of Vermont’s Economic Development Secretariat to measure success in this area. We will also evaluate the success of our programs by conducting surveys among users on a quarterly basis. ✓

The project anticipates providing a neutral source of information for the State Legislature and other State employees in rendering informed decisions on State matters relating to telecommunications. VTAC will measure the times it replied to requests for advice, gave training sessions and supplied materials. ✓

**Linking the Major Elements.** The project will be a success if it helps Vermonters in rural areas develop economically through increased and efficient use of telecommunications applications. By linking education, technology, successful applications, and available facilities, we expect to see measurable economic growth for businesses in Vermont’s rural communities and measurable gains among non-profit organizations.

## **2. Significance**

**Innovation:** The key to the transfer of technology is the organization, simplification, distribution and assistance to the user in assimilating the information. Technologies used will include multimedia interactive networks such as Vermont’s Interactive Television (VIT)

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<sup>1</sup> In this Project Narrative, reference will be made to related budget sections in the Budget Narrative; i.e. (6c)

network and VTAC's own dynamic website. The latter will be a key resource, since it will serve as the locator for all available material (6a, b and f).

Distribution of many tutorials and distance-learning packets will take advantage of the in-place communications networks. Speed of transmission will depend on the location of the user. It will range from standard landline speeds, through fractionalized T1, and include the powerful wideband pipes available through cable modems, which are now being installed in selected locations in Vermont. VIT, in particular, will enable us to establish a link from an expert anywhere in the world, through to the 12 sites served within the State.

The VTAC project is complementary to others in the State. The Director of the project has had a number of discussions with the State and private agencies that assist small businesses in Vermont. VTAC now has an alliance with the Small Business Development Center (SBDC) and, by extension, with the Small Business Administration (SBA). SBDC (see Attachment B) often stresses to their clients the need to understand and implement new telecommunications technologies, products and services. It does not have the resources to help them with this. VTAC has been welcomed as the partner who can provide support. In similar manner, Vermont Interactive Television has volunteered to help further VTAC's goals. We are regarded as needed partners, rather than competitors offering redundant services.

*Exemplary:* The VTAC project is designed to be replicated. We believe that it is unique in being an organization dedicated to enhance business development within a State through concentration in the specific field of telecommunications. Project documentation will be made available in textbook form to permit replication in similar rural states (6h).

The problems faced in Vermont are similar to those faced in other states with primarily rural populations. Where there are few large businesses or smokestack industries, there is a need to attract smaller businesses. An organization such as VTAC should be welcome in other states where the majority of the businesses are concentrated in a few geographical areas, while others go a-begging. The VTAC project will be easy to replicate for a number of reasons:

- Full documentation will be available.
- The interested organizations range from the State government, through Federal Government-sponsored groups such as the SBA and the SBDC.
- Telecommunications suppliers of products and services will be strong supporters.
- The skills necessary to create, organize and maintain an organization such as VTAC are available.

### **3. Project Feasibility**

*Technical Approach:* The VTAC Project is completely consistent with the Federal vision of a nationwide, seamless, interactive network of networks.

- Educators, speakers from the business community, facilitators and training materials will be imported from multiple sources nationwide over existing public networks, and made

available through the Vermont Interactive Television network.

- Within the State, existing public and private networks will be used to reach the VTAC users. Networks range from standard Bell Atlantic circuits to the fiber-optic circuits supplied by Hyperion to the ultra-wideband circuits Adelfia Cable is bringing on stream.
- Internet services will be used as appropriate. Eighty-six percent of Vermont business owners report owning computers and 67% of their employees use them regularly.

Since VTAC utilizes only in-place seamless networks provided by its partners, there is no system to maintain. The system will be upgraded as the network suppliers upgrade their services. For example, the use of cable modems enabling cabled locations to connect computers directly to the Internet-wideband service at a cost below \$40 per month is slowly being implemented in Vermont. As it becomes available, and as appropriate to VTAC's needs, it will be integrated into the project.

Champlain College in Burlington Vermont will complete its multi-million dollar Information Commons in April 1998. (See Attachment B). As a key partner, the College is providing a home for the Vermont Telecommunications Application Center (VTAC). The Commons also houses the College's computer center, classrooms for its students, television broadcast and recording facilities, and other state-of-the-art multimedia facilities. It will be a showcase of useful technology in the media communications, information infrastructure and telecommunications fields. VTAC will be able to take full advantage of all facilities. It means that VTAC can invite its clients to its headquarters, where the visitors can experience the technologies firsthand. The space, facilities, and their use are an in-kind contribution to VTAC from Champlain College. VTAC's headquarters will be maintained and upgraded by the College. In return, VTAC will be a resource to the College concerning new telecommunications products, services and networks for the Commons.

***Qualifications of the Applicant Team:*** The Board of Directors of the Vermont Telecommunications Applications Center comprises representatives from the telecommunications industry, Champlain College, and private businesses. Full Board membership is given in Attachment A.

The Executive Director, Alan B. Kamman has worked in most aspects of technical and managerial consulting. He has achieved global recognition as an expert in telecommunications over the span of a 40-year career. His full biography can be found in Attachment A. Others will assist Mr. Kamman. Biographies can be found in Attachment A. They include:

- John Lavalley: Dean of Information Technology at Champlain College
- Paul Dusini: Director of Information Systems at Champlain College
- Gary C. Kessler: Vice President-Information Systems at Hill Associates
- Steven Shepard: Director, and Senior Member of the Technical Staff at Hill Associates

***Proposed Budget and Implementation Schedule:*** The Budget Narrative, Disposition of Funds, and Source of Funds are attached. Letters of Commitment are attached to the

Statement of Matching Funds. A Timeline is included as Attachment F.

In summary, Project Funds total \$546,913 over a three-year period. A total of \$311,519 has been received or pledged in cash and in-kind. An amount of \$235,394 over a three-year period is requested in this proposal, equating to 42% of the total funding (See Form 424A). All matching funds will be available prior to the start of this project.

The proposed use of Federal Funds gradually is reduced over the three-year period. We believe that after three years, VTAC will be reasonably self-sufficient. VTAC plans extensive funding efforts over the next three years. Our "Target List" is given in Attachment G. At the end of Years One and Two we will review efforts to increase private funding with the TIIAP Program Manager. As appropriate, we will resubmit budgets reflecting our ability to rely more on non-Federal contributions. NOTE: Legislation is in progress to enable the State to contribute to VTAC. It should be in place by May 1998.

VTAC will be sustained by annual contributions in two categories. Partners who provide telecommunications products and services will pay an annual fee based on the subscribers they serve within the State. Fees will range from a minimum of \$1,000 to a maximum of \$35,000. Small Business supporters will pay an annual fee of \$300. It is not VTAC's intention to charge for services from users.

The Timeline shows activities by month during Year One. Years 2 and 3 will be similar, but adjusted at the end of each 12-month period to take advantage of new tasks, or elimination of old ones. Changes will be discussed with the TIIAP Program Manager before implementation.

#### **4. Community Involvement**

There is a wide and deep community involvement in development and implementation of VTAC. The following partnerships are in place as VTAC submits this proposal. Their level of commitment is given in more detail in Attachment B.

Atlantic Cellular/Cellular One Resolution, Inc	Bell Atlantic-Vermont State of Vermont.
Vermont Business Roundtable	Vermont Interactive Television
Small Business Development Center	Hill Associates, Inc.

***Involving the Community:*** VTAC is setting up 5 focus groups around the State, providing a regional presence. Focus groups members are small business owners as well as representatives of non-profit organizations. They will meet with VTAC four times per year. The Executive Director will update them on VTAC activities and hear from them how to serve the community better. All focus groups will meet at least once a year in the Information Commons so they become familiar with the latest technologies. (6c.)

***Evidence of Demand:*** Perhaps the best evidence of demand comes from the Executive

Director of Vermont's Small Business Development Center. He states that the issue of learning more about telecommunications arises almost constantly with each small business owner they counsel. In addition, the State Public Service Board has determined from complaints and issues filed with them, that telecommunications development deserves an extremely high priority. Finally, the business leaders who comprise the Vermont Business Roundtable were so concerned about the subject that they formed the Ad Hoc Committee that spawned VTAC.

## **5. Reducing Disparities**

***Targeting Underserved Communities and Groups:*** VTAC will target traditionally underserved areas of Vermont. Nearly 30% of Vermont's population is in Chittenden and Addison Counties. These counties have a large number of colleges and the University of Vermont, creating an environment sought by high-technology companies. Hence, the vast majority of businesses that understand and take advantage of technology are in Burlington and the surrounding areas. Most other areas have lesser knowledge of high technology.

As mentioned previously, there are 296 towns and villages in Vermont. Many are in the areas seeking economic growth. Some of these rural communities are geographically isolated from information resources and lack technical expertise to understand how telecommunications technologies can help; most particularly with the local economic growth. The VTAC Project reaches out to these communities.

***Reducing Disparities in Access to Information Infrastructure.*** Bell Atlantic-Vermont representative Joan Jamieson says the value of the VTAC project is in the outreach to small business and non-profit groups. VTAC provides access to information on telecommunications services and products that they have little time to search out. VTAC then shows them how the information can be used to their advantage.

***Proposed Strategies for Overcoming Traditional Barriers to Access:*** The primary strategy for developing sophisticated use of telecommunications applications is to offer accessible information and education.

The old marketing adage tells us to "Sell the sizzle before selling the steak." First it is necessary to reach the potential users in the smaller communities and educate them concerning the technologies, products and services which could help to improve the viability and growth of their business. As described elsewhere, the tools used will be suitable to every level of user, whether in the public or private sectors. Some users will be online and use our website and tutorials; some will take advantage of the regional centers of Vermont Interactive Television; some will participate in informational sessions in their communities or at the Center. Focus groups will help keep us evaluate our services and meet new demands. Everyone will be able to make use of the facilities and demonstrations at VTAC.

The present telecommunications infrastructure in Vermont is underused. As rural Vermont businesses use of telecommunications application grows, the additional traffic should spur

investment by telecommunications carriers.

## **6. Evaluation, Documentation, and Dissemination**

***Evaluation:*** The Applications Center will evaluate the project's success with the help of Mr. James Dayton, an expert evaluator who has been in the business for a decade (6f.) Progress toward implementation will be measured in terms of elapsed time and dollars spent. Working with State and County organizations, we will also gather economic statistics, at quarterly intervals if possible, certainly annually. These will culminate in an annual report assessing change statewide and in individual communities as a result of VTAC's efforts.

For example, staff will follow up in focus groups and a telephone survey of users of VTAC services to determine whether in their opinion, the recommended services have increased their viability. (6a,f, h.) These measurements will be tied directly with the problems encountered and solutions proposed as described in the first section of this narrative. The Executive Director believes strongly that you can manage only what you measure. He will assist Mr. Dayton to make sure that every task has milestones, and that those milestones are quantifiable.

It is VTAC's plan to issue a report to its Board of Directors and funding partners, including TIIAP sponsors, on a quarterly basis. The reports will be available within three weeks after the close of each quarter. Descriptions of benefits to individual users from outreach programs, "match-making" with advanced users and other counseling will be published and made available to the business community. Every success serves as excellent publicity for the project.

***Documentation:*** All documentation, including raw data collection forms, papers, notes and resulting finished and published reports, will be filed, stored and made available when necessary. The files will include information relevant to the history of the project. They will also explain the methods and procedures used for data collection and documentation.

***Dissemination:*** In addition to providing quarterly reports directly to the partners, VTAC's Executive Director will write, submit, schedule and make presentations at conferences and symposia. These include telecommunications symposia with sub-programs devoted to rural growth, conferences sponsored by local, State and Federal agencies and privately sponsored conferences focused on town and village economic development. VTAC will host site visits to Champlain College's Information Commons. The budget includes outreach to all target users encouraging visits to VTAC offices to examine the telecommunications, information technology and multimedia technology and products in use (6a,h).

Findings will be published on VTAC's website. Since the website will have multiple linkages to other websites, users, vendors and service providers, dissemination will be widespread. In addition, VTAC and its partners expect to produce numerous papers and findings for professional journals, Vermont business journals and the two major Vermont general magazines.