

Telecommunications, continued from page 7

Area Development Council, demonstrated that a regional group can accelerate the deployment of advanced technologies to attract businesses and create jobs. Working with a coalition, the group developed a blueprint for modernizing the information infrastructure in the greater Kansas City area, thus contributing to the region's reputation as a leading-edge area for electronic business.

Coordinated Care for Tuberculosis Patients, a project led by Columbia University in New York City, demonstrated the information infrastructure can be used to fight serious health problems, such as tuberculosis. This consortium established an electronic sharing of TB case reports, automated protocols to detect new cases of TB, wireless links from visiting nurses in patient homes to health records stored at the hospital, and a touch-screen kiosk at clinics providing health information for TB patients. As a result, patients receive better care and health agencies have greater control over the spread of infectious disease.

Making Healthy MUSIC. In New Jersey, a coalition led by the Newark Public Schools created an electronic community network to revitalize an inner-city community with better communication. The project is also re-defining the relationship between the school and the community to foster higher levels of student literacy.

Getting Started

Successful projects create a disciplined, business-like approach and foster communication with other groups, often leading to partnerships. TIIAP projects demonstrate how to plan the successful introduction of information technology into a public service setting.

In general, steps in the planning process include:

- Gathering information about community needs, assets and resources, existing information infrastructure, end-user training requirements, and related issues.
- Developing a business plan involves defining: project goals, specific problems or needs, potential partners and roles, staffing, marketing, detailed budget and timeline, and a plan for financially sustaining the project.
- Developing an evaluation plan identifies project goals and provides a means of measuring the extent to which goals are met. Such a plan provides important feedback during development of the project.
- Identifying potential sources of funding, including: corporate and foundation funding, third party in-kind donations of

goods or services, fees for services rendered, other federal grants, or state, tribal, local and/or non-federal grants. Financial support brings legitimacy and status to a project, making the organization a serious contender for additional funding.

- Soliciting potential partners who can play a critical role in providing advice, leveraging financial support, and serving as powerful community advocates is vital. Partners are drawn from local organizations that complement the talents and resources of the project group. Potential partners include end-user organizations, equipment vendors, technical consulting firms, and government entities.

- Planning for sustainability must begin at an early stage. Ideally, funding to sustain a project should come from many sources, in return for a variety of services.

- Determining which technologies to use is complicated by the current pace of technological change. In general, project directors should follow technology trends, remain flexible, and be prepared to adapt to unplanned contingencies.

- Replicating models that can be adopted in other locales is a feature of TIIAP programs. A new group seeking to develop a service should learn what happened in the model project, extract the core elements, and adapt the model to the new context, taking into account the context of the community where the application must take root and grow.

Moving Forward

TIIAP projects offer valuable lessons about implementing new information infrastructure projects and transforming a plan into a working project. Among the steps necessary to set a plan in motion are:

- Hiring and managing staff requires a clear organizational structure in mind, defining staff roles, and knowing what qualities are desirable in new employees. TIIAP project directors recommend hiring local people, noting college students and volunteers can be valuable sources of labor.
- Developing and maintaining strong relationships with project partners requires time and effort, but such partnerships can be mutually beneficial when expectations and responsibilities are understood by each group. Working with private sector partners requires understanding of company goals, organizational structure, and procedures. Working with non-profit partners requires making the project's service so valuable the organization is willing to adopt and pay for it from their operational budget once initial funding ends.

- Marketing the project means non-profit organizations must think like businesses, which involves researching potential markets, targeting services and products to clearly defined groups, and following-up with strong customer service.

- Working with equipment vendors and technical consultants requires careful research, knowledge of the equipment and services needed, a realistic budget, and clear expectations regarding timelines and delivery schedules.

- Managing some project costs can be anticipated and built into a budget, but hidden costs can quickly escalate. This category includes costs of training end-users, retrofitting old equipment, internal wiring, ongoing maintenance, and network connections.

- Working with end-users is challenging, because they often have limited experience with new technologies. Overcoming this obstacle requires training and time. End-users also want a service that is easy to use and quickly displays content that is useful, timely, and well-organized.

Next Steps

Lessons learned to date suggest that TIIAP is serving important needs in the community. First, the projects are helping cities, schools, libraries, economic development groups, police and other public safety departments, and social service organizations become anchor tenants on the National Information Infrastructure (NII), thereby attracting others to use the NII. Second, the role of many government agencies, libraries, schools, and other information agencies is changing from information repositories to customer-driven service providers. Third, it is raising the level of information technology skills in the community as TIIAP projects train people, who in turn become trainers of others.

"He will act like prudent archers, who, seeing that the mark they plan to hit is too far away and knowing what space can be covered by the power of their bows, take an aim much higher than their mark, not in order to reach with their arrows so great a height, but to be able, with the aid of so high an aim, to attain their purpose."

*Niccolo Machiavelli
Il Principe
1532*