Nebraska Information Technology Commission
Community Technology Fund Projects 2002

With the development of a municipal wireless network with funding from the NITC's Community Technolgy Fund, the South Sioux City Police Department became the first law enforcement agency in the state to access the Nebraska Criminal Justice Information System's Web interface from the patrol care.

Grants support technology development

Since September 1998, 40 projects have been awarded a total of $834,700 from the Nebraska Information Technology Commission's Community Technology Fund.   The projects funded demonstrate how information technology is being used to improve efficiency and enhance economic development.   Projects funded through the 2002 Community Technology Fund range from the development of a municipal wireless network used to improve the delivery of local government services to the placement of computers in local learning centers to expand access to educational opportunities in rural areas.   This report highlights the projects funded from the 2002 round of the Community Technology Fund and shares lessons that can be learned from these projects.

2002 Community Technology Fund Projects

Project: Wireless Municipal Area Network

Entity: City of South Sioux City

Award: $13,250

Status: Complete

The City of South Sioux City has installed ten high-speed wireless "hotspots" in the community for use by the police department, fire department, public library and South Sioux City Community Schools. The South Sioux City Police Department became the first law enforcement agency in the state to access the Nebraska Criminal Justice Information System's Web interface from the patrol car. Through a partnership with the South Sioux City Community Schools, the police are able to view 48 different video surveillance cameras in the Senior High School complex from the patrol car in real time. The South Sioux City School District is utilizing the wireless network to provide connectivity for school board meetings, field research for science class, and real-time updates and weather reports for sporting events. The South Sioux City Fire Department is utilizing the wireless network to gain access to Internet and e-mail at the fire hall. The Fire Department is also using the system to gain access to training resources and to access real-time information on HAZMAT as well. The South Sioux City Public Library is using their wireless access point to provide library patrons an alternative for public access computing. Patrons can utilize wireless-enabled laptops to access the Internet or do homework from the location they feel most comfortable. The South Sioux City Housing Authority is utilizing the wireless network to improve their access to Internet and e-mail.

Lessons Learned:

Much has been learned about the deployment, maintenance, and security of a wireless network. Omni directional antennas were utilized in the early testing and deployment of the network until it was discovered that two antennas installed in a diversity configuration was a far superior set-up. Signal quality and range is greatly enhanced by utilizing the multi-path canceling abilities of a diversity antenna configuration. A service pack upgrade is available for Microsoft Internet Explorer version 6 that enables the 128 bit cipher strength required for law enforcement to access NCJIS. Most of the connectivity done on the wireless also utilizes VPN. Several enhancements to 802.11 security are embedded in the newly released Microsoft Windows Server 2003. The City of South Sioux City plans to implement Server 2003 on all of its servers this fall.

Some of the greatest challenges of the project turned out not to be technical or physical challenges—but more political and policy challenges. Acceptable use policies had to be developed for the library and police department as well as policies for patrons to use library laptops. An agreement had to be reached for the Housing Authority to access the network as well. Often times, the development of policies and agreements is far more complex and time-consuming than the actual installation of the equipment.

Project: Building Information Age Communities Planning Mini Grants

Entity: University of Nebraska Cooperative Extension

Award: $20,000

Status: Extended until October 31, 2003

In the fall of 2002, eight communities and regional groups began conducting technology assessments and developing a technology plan using the *IT Planning and Assessment Workbook*. As of Sept. 22, 2003, six of the eight communities and regional groups have completed technology plans. Alliance, Custer County, Edgar, Keya Paha/Brown/Rock Counties, West Point and York have prepared technology plans. The remaining two committees are making progress. The Crawford-Harrison technology committee has applied for a grant from the USDA Rural Utilities Service and is waiting to hear if their application has been funded before developing a formal technology plan. The Fillmore County technology committee expects to have their plan completed by the end of October.

Lessons Learned:

1. Community technology planning requires a substantial time commitment from technology committee members and facilitation by energetic, committed community leaders. The mini grant program provided an incentive for communities to focus on technology planning.

2. The *Community IT Planning Workbook* simplifies the planning process. Participants liked the workbook and appreciated not having to develop their own assessment and planning tools. Participants suggested that sample plans and a glossary of technology terms be included. These changes were made to the revised *Community IT Planning Workbook*. In addition, the facilitator's guide was revised and includes tips gleaned from working with the participating communities as well as tips from community leaders. Additional worksheets to help committees plan supplemental assessment activities, build community support, develop a technology plan, and plan implementation activities were also developed.

3. Sometimes forming a technology committee can attract the attention of telecommunications providers, facilitating discussions between the community and providers on the availability and deployment of advanced services.

4. Documenting community needs through the assessment process can assist in the preparation of successful grant applications.

Future Plans

Six more community and regional groups are participating in the 2003-2004 IT Planning and Mini Grant Program. Ord, Homer, and Hastings have already held their initial committee meetings. Other participating communities include Dakota City, Maskell, and Lexington.

Project: Digital City Hall

Entity: City of Ashland

Award: $7,629

Status: Complete

The City of Ashland purchased a LaserFiche system to scan city documents into a format that is easily searchable, provides more convenient access to the public and staff, and allows for secure, off-site storage of city records.   Many members of the community are eager for the documents to be in a digital format and be accessible via the city's Web site.

Lessons Learned: Through the project, staff has learned the importance of technology and how critical digital preservation is.   It would be beneficial to have a staff member and computer dedicated to this project.

Project: City of Aurora Utilities GIS

Entity: City of Aurora

Award: $25,000

Status: Complete

The City of Aurora designed and created a utilities database that captures all the necessary information items desired by city administrators and staff.   By using GIS resources currently available from other governmental jurisdictions, the City of Aurora has demonstrated that GIS can be an affordable and useful tool for smaller communities in Nebraska.   The City of Aurora has entered into an agreement with Hamilton County to share software that both agencies require. This has already generated an immediate $3,000 in savings.   In addition, the City of Aurora has exchanged utilities information with NPPD in exchange for new 2002 imagery flown by NPPD, saving the city the expense of duplicating the imagery and saving NPPD the expense of creating the utility data it requires.

Initial benefits of this project include the general overhaul of the utilities system. The creation of the GIS and records management system has forced the city field crews to locate all services in the field (for example, buried valves and manholes). It is also forced field crews to perform preventative maintenance on items that may not have been considered, leading to more expensive repairs and/or utility outages at a later date.

Lessons Learned:

Communities undertaking a similar project should begin contacting engineering companies holding digital data early.   Creating and signing agreements with these companies takes time. GPS data collection was much more rapid when crews went out beforehand to locate features with spray paint, allowing GPS collection crews to move rapidly through the city.

Project: Electronic Archiving of Medical Records

Entity: Franklin County Memorial Hospital

Award: $22,292

Status: Complete

Franklin County Memorial Hospital has implemented an electronic medical records system. The hospital has scanned 150 medical records from paper to electronic storage, created batch indexes and created a database that is accessible by password security, for reference.   The PaperStore software has allowed the hospital business office to convert month-end financial reports to electronic storage, accessed through the hospital's Dairyland Software for fiscal reporting.   Primary beneficiaries are the patients and providers. Having access to current information on patients will improve patient outcomes.   A secondary benefit is improved compliance with HIPAA as privacy and security are improved with a password and firewall protected software.

Lessons Learned:

Ample time for scanning should be allotted.   Future projects should carefully evaluate the time required to collate charts and create the patient index.   Other hospitals undertaking a similar project should budget for one to two full-time equivalent staff members to scan the documents. Scanning requires staff who are detail-oriented and have both computer and organizational skills.

Project: Sarpy County GIS Base Map Interlocal Agreement

Entity: Sarpy County

Award: $25,000

Status: Complete

The Sarpy County Geographical Information System Coalition was created to develop a unified GIS in Sarpy County.   This grant has partially funded the development of a GIS land base map through a contract with an engineering firm with assistance from a software/technical consultant. The development of a single county-wide land base map will allow each entity to overlay specific information without having to duplicate the efforts required to create and maintain basic information regarding the location and description of streets, lots, rivers, section lines, etc.   The development of the GIS will greatly enhance the accessibility of information to local government departments, decision-makers, and to the public.   As an example of the initial uses of the system and the preliminary data available, the Assessors office has been able to provide the public better information during the assessment process by utilizing the aerial photos and legal lots in conjunction with the state soils information. This project has also improved communication between Sarpy County and its cities.   This has improved many processes and workflows between the participating entities.

Lessons Learned:

The main thing learned from this project is the critical role all participating members must play. A project of this size and with seven jurisdictions involved requires a huge amount of communication and organization.   It is important to solidify the partnerships needed to accomplish your project.   Hiring a GIS Coordinator at an earlier stage would have made the project run a lot smoother and taken some of the burden off of staff.

Project: Sink or Swim—Educating the Rural Labor Pool

Entity: Central Community College

Award: $18, 518

Status: Complete

Central Community College placed computer work stations and printers in 9 learning centers located in South Central Nebraska. Training sessions were held for learning center managers. Between mid-January and mid-May 2003, approximately 500 people have used the computers for a total of 282 hours at the ten sites. Nearly 60 percent of the users were Central Community College students completing course assignments. Enrollment in Central Community College credit courses from Spring 2002 to Spring 2003 at the nine learning center sites increased 52%.

Lessons Learned:

One of the unexpected outcomes from this project has been the realization that a large number of persons in these nine communities (Alma, Axtell, Blue Hill, Franklin, Harvard, Hildreth, Lawrence, Nelson, Orleans, and Superior) have very limited access to computer technology. Many adults have expressed an appreciation of the availability of additional computers for public use. As a result, an interest in pursuing computer-related training has increased.

Project: Basic Scanning Classes

Entity: LaVista Public Library

Award: $3,612.06

Status: Complete

Basic scanning classes are now offered at the LaVista Public Library to the public and staff of the City of LaVista, LaVista Public Library, and Metropolitan Community College.

Lessons Learned:

The project reinforced the fact that teamwork is essential. People are always willing to go the extra mile.

Project: Interactive Video/Distance Learning Network

Entity: Valley County Hospital

Award: $19,623

Status: Six-month extension granted

The development of a statewide telehealth network has delayed implementation of this project. As plans for the statewide telehealth are developed, Valley County Hospital will be better able to determine how to proceed with this project.

Project: Interactive Video/Distance Learning Network

Entity: Cherry County Hospital

Award: $11,136

Status: Six-month extension granted

The development of a statewide telehealth network has delayed implementation of this project. As plans for the statewide telehealth are developed, Cherry County Hospital will be better able to determine how to proceed with this project.

Project: Connect IT Omaha

Entity: Omaha Public Library

Award: $25,000

Status: Terminated by mutual agreement

The grantee opted not to implement this project.

Community Technology Fund Grants

1998-2002

Year	Recipient	Project	Award
2002	City of Ashland	Ashland Digital City Hall	$7,629
2002	Sarpy County	GIS Base Map Interlocal Agreement	$25,000
2002	LaVista Public Library	Basic Scanning Classes	$3,612.06
2002	Cherry County Hospital	Interactive Video/Distance Learning Network	$11,136
2002	Valley County Hospital	Interactive Video/Distance Learning Network	$19,623
2002	Omaha Public Library	Connect IT Omaha	$25,000
2002	City of Aurora	Utilities GIS	$25,000
2002	Central Community College	Sink or Swim--Educating the Rural Labor Pool	$18,518
2002	University of Nebraska Cooperative Extension	Building Information Age Communities Planning Mini Grants	$20,000
2002	Franklin County Memorial Hospital	Electronic Archiving of Medical Records	$22,292
2002	City of South Sioux City	Wireless Municipal Area Network	$13,250
2001	City of Aurora	Aurora Technology Center	$25,000
2001	Lower Platte North NRD	Common Framework for Integrating Surface Water Data	$24,800
2001	Bruun Memorial Public Library, Humboldt PublicSchool Library Table Rock-Steinauer School Library	Taking Resources and Information Online (TRIO)	$18,600
2001	Southeast Community College	Technology-Based Education for Health Occupations	$18,195
2001	Beatrice Public Library	Senior Connection	$22,932
2001	Commission for the Deaf & Hard of Hearing	Telehealth	$25,000
2001	Omaha Tribe of Nebraska	Omaha Tribe Online Information Technology Plan	$25,000
2001	Village of Brainard	Brainard Community Technology Center	$18,495
2001	Kimball County Hospital Clinic	Integrated Practice Mgmt & Electronic Medical Record Proj.	$25,000
2001	Village of Greeley	Greeley Learning and Technology Center	$23,500
2001	City of Lincoln	City of Lincoln Technology Infrastructure Audit	$23,500
2001	Central Community College	From Plowshares to PCs: Creating a Learning Community	$23,500
2000	Norfolk Public Library Columbus Public Library Northeast Nebraska Community College Library	ONE Library	$25,000
2000	Kearney Public Library	Public Internet Access Enhancement	$19,380
2000	Public Library System, Holdrege	Public Library System Web Catalog	$9,218
2000	University of Nebraska Cooperative Extension Center for Rural Community Revitalization AIM Institute	Connecting Nebraska E-Business Project	$52,000
2000	Elmwood-Murdock Public Schools	Web Parent Teacher Project	$22,270
1999	University of Nebraska	Nebraska Electronic Main Street Program	$9,990
1999	City of Wayne	NRICHN (NE Nebraska Regional Information Clearinghouse)	$2,000
1998	Dakota City Public Library	Dakota City Teleliteracy: Train the Trainers	$3,600
1998	City of South Sioux City	South Sioux City E-Commerce Initiative	8,340
1998	City of Lincoln/Lancaster County	Project Interlinc	$23,520
1998	University of Nebraska	Roving Computer Lab and Training for NE Nebraska	$28,000
1998	Lincoln Area Agency on Aging	GOAL Computer Center	$4,000
1998	Partnership for Rural Nebraska	Nebraska Teleliteracy and Electronic Commerce Initiative	$85,000
1998	Chase County	Chase County Video Development	$8,095
1998	Southeast Nebraska Development District	Teletraining for Emergency Responders	$22,000
1998	Panhandle Area Development District	Capacity Building, Communication & Cooperation	$6,225
1998	City of Superior	Business Incubator/Technology Project	$41,480
	TOTAL		**$834,700**