



OVC Bulletin

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USING TECHNOLOGY TO ENABLE COLLABORATION

Introduction

Victim Services 2000 (VS2000), sponsored by the Office for Victims of Crime (OVC), is a 5-year demonstration project designed to create model victim service delivery systems for replication nationwide. In 1997, OVC selected Denver, Colorado, as an urban VS2000 demonstration site. Each demonstration site must develop a unique victim service model tailored to the needs of its community and provide training and technical assistance to communities interested in replicating the VS2000 process.

The Denver VS2000 model is a broad-based, collaborative effort. Representatives from more than 50 Denver-area victim service agencies and programs participate in the project, including victim service programs based in the criminal justice system, community nonprofit service providers, and allied professionals. The Denver model emphasizes three goals:

- Increase outreach efforts to previously unserved and underserved populations.

- Institutionalize training for service providers and allied professionals who work with victims.
- Advance applied technology to ensure improved services and information for victims of crime.

As part of a series of bulletins documenting VS2000 site initiatives, this bulletin examines Denver's automated information system, which is a critical component of the Denver VS2000 model. In addition, this bulletin summarizes the collaborative structure and community needs assessment that were critical to the conception and development of the information system. Finally, this bulletin describes the three elements of the information system and their implementation, suggesting how other sites can develop and maintain technology-based solutions to serve victims of crime.

Background

Historically, the application of technological innovations to victim services has been a challenge for victim service providers. There are several reasons for this. Over the years, as

About This Bulletin

This is the second in a series of bulletins highlighting the Denver Victim Services 2000 (Denver VS2000) demonstration project. The first bulletin, *Denver Victim Services 2000 Needs Assessment*, documented the Denver needs assessment process, from which the project developed its VS2000 goals and initiatives. This bulletin, *Using Technology To Enable Collaboration*, discusses the technology initiatives identified through the community needs assessment as critical to achieving the VS2000 goal: a seamless, accessible system of services for all crime victims.

The Denver VS2000 technology initiative has three components: an online Resource Directory, an online Training Center, and an automated, online client Case Management System. An interactive Web site connects these and links to other victim service providers. This bulletin summarizes the collaborative effort and needs assessment that were critical to the conception and development of these components. Further, the bulletin describes the component elements and their implementation, suggesting how to develop and maintain the same or similar technology-based solutions to serve victims of crime.

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About This Bulletin

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Not only will victim service providers find this bulletin extremely informative, but agencies and their information systems staff will find it very helpful in determining what technology would best enhance interagency collaboration to support victims in the community. This bulletin directs readers to no-cost tools to meet local needs and the technical assistance to implement them. As you read this bulletin you should consider your own community's needs and determine if the information and technical assistance available from the Denver VS2000 project could be applied to improve and expand your community's efforts on behalf of victims.

victim service providers became used to working under the constraints of insufficient resources and tight budgets, they assumed that technological innovations were out of reach or unnecessary for providing quality victim services. In addition, the knowledge and expertise required to use technology to design and implement solutions are often outside the usual purview of those working in the victim services field. This technology can intimidate those not familiar with it, making them reluctant to embrace it. Despite these challenges, today's victim service community is realizing that technology is more accessible, affordable, and critical to the efficiency and productivity of victim service agencies than ever before. As victim services evolve, service providers must determine how to use technology to capture, manage, and disseminate the large and growing amounts of information about and for victims of crime.

While researching innovative new technologies, Denver VS2000 participants

became aware of many benefits technology offers the victim services field. Technology may be used to

- Improve the accuracy and quality of information gathered.
- Improve service providers' ability to address victims' needs.
- Eliminate or decrease redundant data entries.
- Enhance statistical reporting and program evaluation.
- Improve communication among service providers and between service providers and victims.

The Denver VS2000 information system uses both simple and complex innovations to enhance services, increase efficiency, and improve the way victim service providers do their jobs. This system

- Enables electronic mail communication (e-mail) through the Internet, allowing victim service providers to easily share agency information about training and other activities.
- Provides a comprehensive, continually updated, online Resource Directory for easy use by service providers and the general public.
- Facilitates coordinated case management, ensuring integrated services for victims across multiple agencies and eliminating duplicative and revictimizing intake processes.
- Eases discussion of communication, efficiency, and access issues throughout the country by victim service providers and victims of crime.

Denver VS2000 Model

Denver has a history of passing legislation and establishing initiatives favorable to victims, including appointment of the first prosecution-based victim advocates in the United States, passage of a state Victims' Rights Constitutional Amendment and enabling legislation, development of numerous interdisciplinary victim-centered protocols, and establishment of a central victim service center. With this history, it was not surprising to find that more than 50 agencies in Denver provide comprehensive services to a broad range of crime victims. What was surprising was the finding by needs assessments and anecdotal reports of many gaps in Denver's victim services.

Using VS2000 To Develop a Model Victim Services Network

The VS2000 grant gave Denver a timely opportunity to improve services, fill gaps, and eliminate duplication between agencies through processes that integrated services, increased service accessibility to victims, and increased collaboration among victim service providers. Beyond improving services, the VS2000 grant made it possible for Denver to improve its *system* of services. Given the scope and complexity of Denver's victim services, the technology introduced by the Denver VS2000 model was critical to the success of this effort.

Mission

The mission of Denver VS2000 is to work with the community to restore and strengthen the fabric of the community by creating a model network of services that offers outreach as well as innovative, specialized, integrated, and seamless services to all victims of crime.

Goals

The primary goals of Denver VS2000 are to

- Establish a seamless, comprehensive, coordinated, interdisciplinary system of service delivery for victims of crime, including those victims in previously underserved and unserved populations.
- Create a training institute that integrates technology, cross-training among victim service agencies, and standardized training for professional groups and schools, including victim service providers, faith communities, law enforcement, and law schools.
- Apply relevant technologies to the delivery of services to victims of crime.

Organization

To accomplish a project of this magnitude, Denver VS2000 participants formed four working teams: the Model Network Development Team, the Needs Assessment Team, the Technology and Automated Systems Team, and the Training Institute Team. The teams further divided into committees and subcommittees to work on specific components of the model victim services network. The teams and committees included victim service providers from the criminal justice system and community nonprofit organizations, allied professionals, and crime victims. Five full-time staff members coordinated all efforts during the 5 years of planning, developing, and implementing the VS2000 project. The teams, steering committee, and victim advisory council provided guidance throughout each phase of this process. In addition, Denver contracted with a technology project manager and a system administrator to work on the Denver VS2000 information system. A detailed description of the Denver

VS2000 planning process will be provided in a forthcoming OVC bulletin.

Technology Needs Assessment

The Technology and Automated Systems Team and its subcommittees have been meeting since 1997 to develop an integrated information system that links existing and new technology. First, this team conducted several assessments. One assessment determined whether existing technology was adequate to notify, protect, and serve victims in Denver. Another assessment determined the capability of current systems to coordinate with the proposed technical improvements.

Assessment Method

The assessments were accomplished through a series of focus groups conducted with Denver victim service providers. Participants were asked to identify the information needs in their work and describe ways they thought technology could help them. Service providers identified three top priorities: basic technology, such as phone systems, computers, and pagers; a continually updated resource directory to share among agencies to eliminate the frustrating, time-consuming, inefficient efforts of keeping resources up-to-date within each agency; and a mechanism to share information about victims who need services from multiple agencies to eliminate duplicative efforts and prevent victims “falling through the cracks” when referred from one agency to another.

Recruiting current and recent clients, service providers conducted focus groups of crime victims to find out what they found lacking in the way services were provided. The responses showed that the majority of victims had used the services of more than one agency while healing from their victimization. All participants reported they were required to fill out

multiple intake forms—a process they found “frustrating” and “uncomfortable.” All participants liked the idea of working with one case manager who could “work with them to find what they need.”

Assessment Results

The results of these focus groups were combined with the results of the broader VS2000 needs assessment (as documented in *Denver Victim Services 2000 Needs Assessment*, published by OVC in October 2000) that included victim service provider surveys, victim feedback surveys, and a survey of training needs. The results were used to develop an integrated, Internet-based information system that includes three basic components: a shared online Resource Directory, an online Training Center, and a shared online client Case Management System (CMS).

Advantages of the Denver Technology Initiative

The information system developed by VS2000 has several advantages. This system

- Creates unprecedented linkage among victim service providers.
- Eliminates the need for victims to retell their stories and fill out multiple intake forms.
- Offers victims a single point of contact for their cases, helping them efficiently find what they need.
- Links traditional victim service providers with Denver’s grassroots community advocates who work within a restorative justice framework to meet the needs of underserved and unserved victims in their own communities.

- Offers an updated, comprehensive, online resource and referral directory to victim service agencies, victims, and the community at large.
- Helps identify and eliminate duplication of services to Denver's crime victims.

Victim Feedback

During the system design phase, victim focus groups were again convened and asked how they felt about having their case information shared, with their consent, among case managers. Service providers had expressed concern that victims may feel that sharing their case information invades their privacy. However, victim focus group participants stated unequivocally that they wanted their case information shared among case managers. The victims said they wanted service providers to know about their victimization and service history because they believed this would result in better delivery of services.

National Technology Search

To ensure the use of current best practices in technology, VS2000 staff researched existing technologies available locally and nationally. An OVC publication, *New Directions from the Field: Victim Rights and Services for the 21st Century*, highlights several promising technology initiatives, including online counseling groups offered by the Brazos County Rape Crisis Center in Bryan, Texas, and online resources offered to victims of crime by Safe Horizon (formerly Victim Services) in New York City. The *New Directions* publication recognizes another innovative protection provided to victims of domestic violence—the distribution of cellular phones preprogrammed to dial 911. Denver has offered this service since 1997.¹

The 1998 National Center for Victims of Crime (NCVC) publication *Promising Strategies and Practices in Using Technology To Benefit Crime Victims* is another source of information on current technology for victim services. This compendium summarizes 35 technologies used by criminal justice and victim service agencies across the country to obtain, disseminate, and manage information for and about victims of crime. The publication divides technology solutions into five categories: case management and tracking, notification and protection, legal and financial obligations, victim service tools, and information and Internet sources.

The VS2000 technology project manager researched emerging technologies through the Internet and industry contacts and found several software applications that met a variety of victim service needs. One well-known victim notification system currently used in Denver is VINE, or Victim Information and Notification Everyday. The State of South Carolina developed a system called SAVAN (Statewide Automated Victim Assistance and Notification) that provides notification to victims there. Pennsylvania commissioned the Great Lakes Behavioral Research Institute to develop a victim-specific case-tracking system called R/Client for Windows. The National Domestic Violence Hotline, with funding from the U.S. Department of Health and Human Services, established a toll-free hotline that uses a national database to provide information and referrals for victims of domestic violence and sexual assault.

Several other information systems offer case management and tracking functions. Integrated Tracking System (ITS) and ebase are two systems developed in the public domain and available free of charge. Currently, 68 domestic violence

and sexual assault programs in Texas use ITS. Nonprofit organizations use an interactive database developed by ebase. Other available commercial systems include those developed by IRis (Benchmark Enterprises), Agency Systems, and IIS (Integrated Information Systems, Inc.). Contact information for these applications is provided in the Additional Resources section of this bulletin.

Local efforts to automate the collection and dissemination of resources also were researched. A coalition of providers serving the Denver homeless population developed a collective database of resources on disk for sharing. The local United Way chapter created a similar resource directory on disk. Three Denver victim service providers collaborated to create a shared victim service resource directory that lists information about several hundred community and government service agencies and resources. This shared victim resource directory became the foundation of the VS2000 online Resource Directory.

At the conclusion of the technology research effort, a decision was made to develop the VS2000 online Resource Directory by modifying existing software. Denver organizers found it necessary to develop new software for the Case Management System and Training Center because all the researched systems were designed for use by one type of agency or to serve one type of client. The researched systems could not be modified to manage the diverse services and clients in the VS2000 network.

Information System Design

System Users

The VS2000 information system is designed to benefit victim service providers, the victims they serve, and the general community. Access to the system is provided for two categories of users—the

general community and ProviderNet users. With Internet access, general community users, including victims, can interact with the VS2000 system; however, community users and victims do not have access to confidential information and the Case Management System.

A ProviderNet user is a staff member or volunteer at an agency that

- Commits to the VS2000 philosophy of integrated, seamless services.
- Provides services to victims identified in the agency's mission or operates a victim service project.
- Provides services within the city of Denver.
- Operates as a nonprofit, community-based, or government-based organization.

Of the many agencies that serve victims of crime in Denver, 38 are members of the VS2000 ProviderNet and use the Resource Directory and Training Center. ProviderNet users can access the system through the ProviderNet gateway on the VS2000 Web site. System technology includes a security system that limits each user to his or her appropriate level of access. CMS is being developed for 20 agencies that provide direct services to victims of crime and together provide the primary victim services in Denver. These are a smaller subset of the ProviderNet.

Advantages of a Web-Based System

The entire VS2000 information system is available on the World Wide Web at www.vs2000.org/denver.htm. An Internet location offers many advantages and allows the VS2000 Web site to serve the largest number of users and provide the greatest amount of information. The site is easily accessible and always available, serving community members and victims

of crime equally. The Internet location offers public access to the Resource Directory, the Training Center, and CMS and provides resources on crime and victimization. The Internet site also provides contact information for direct service agencies that work with Denver victims. An Internet presence allows the VS2000 agencies to increase their visibility to the general public and to those seeking services. To reach more crime victims, the Denver VS2000 Web site links to many community-based technology initiatives and advertises in locations that provide public Internet access, such as libraries, schools, and public housing developments. Available in both English and Spanish, the Web site receives more than 500 "hits" per month, many of them from Spanish-language search engines.

From its Internet location, the Denver VS2000 information system provides users with technical assistance and access to technology. The information system connects users and the public to each Denver VS2000 system component and connects users to each other by hosting e-mail accounts for more than 120 ProviderNet users.

Components of the Denver VS2000 Technology Initiative

Resource Directory

Although resources are the backbone of victim assistance, their management creates a lot of duplicative work for agencies. Many victim service agencies find that locating, compiling, screening, and organizing resources is extremely time consuming. Further, different agencies serving a particular geographic area or a particular victim group find that their hours of independent work performing resource collection and management tasks

result in very similar products. Even more frustrating, service agencies find that by the time the resource findings are printed and distributed, they often are out of date.

Denver victim service providers decided to eliminate this duplication of effort and produce a shared, Internet-based directory of resources for use by all service providers as well as allied professionals, victims of crime, and other community members. Thirty-eight ProviderNet agencies created the VS2000 online Resource Directory based on a successful resource directory developed collaboratively in 1997 by three Denver victim service agencies. Available in Spanish and English, the Resource Directory comprises more than 800 records, each containing detailed information about a specific government- or community-based agency or resource. These records represent the combined information and referral sources of all 38 ProviderNet agencies.

An information specialist in one of the ProviderNet agencies administers the Resource Directory. She created the directory's original database and worked with all 38 ProviderNet agencies to design the directory's template, combine all agency referral sources, develop referral agreements with each referral source, develop and test the directory, and maintain directory data. This administrator works with each ProviderNet agency under a formal operating agreement that states that the agency will provide its information and referral resources for inclusion in the directory and advise about the directory's ongoing development and maintenance.

To access the Resource Directory, users may go to the VS2000 Web site and log on to the ProviderNet gateway. Community members may access the Resource Directory directly from the Web site without going through the ProviderNet gateway. Users and community members

may then search for resources using any combination of the following categories: services provided; agency name; type of victim served; languages spoken; geographic area, age, and ethnicity served; fees for service; wheelchair accessibility; and ZIP code. Selecting more categories narrows the search. To enhance communication among ProviderNet members, each ProviderNet agency in the Resource Directory lists supplemental information, including staff names, positions, and contact information.

From a completed search, agencies can create a report of the search results. From this report, an agency can print one or several records and provide them to a victim. The Resource Directory also can be printed in full or by category to provide copies to victim advocates in the field who do not have access to the Internet.

The Resource Directory administrator is responsible for keeping the directory current. When ProviderNet users find an out-of-date record, they send a correction electronically to the administrator, who verifies the new information and updates the record. In another effort to keep information current, the administrator supervises a group of volunteers who contact, on a rotating monthly basis, the service providers listed in the directory to verify their information.

Training Center

Just as resources are the backbone of victim services, training is its foundation. An examination of how available training resources were used by various Denver victim service agencies revealed that changes were needed. Initial surveys, focus groups, and anecdotal evidence indicated that victim service agencies were each offering very similar training to staff and volunteers once or twice a year, often using the same trainers and speakers. In

addition, cross-training among agency staff was identified as a critical need in establishing understanding, trust, and a basis for solid referrals among agencies. The creation of the online Training Center has answered these needs by streamlining training efforts, reducing duplicate training, and creating a framework to encourage cross-training.

The online Training Center provides many advantages. It allows ProviderNet users and community members to share training opportunities. Trainings may be searched by entering a keyword, a date, or a category such as child sexual abuse, criminal justice, cross-training, disability, diversity, domestic violence, elder abuse, gang violence, hate/bias crimes, homicide, restorative justice, secondary trauma, sexual assault, and youth violence.

ProviderNet users can enter the training events they are hosting and register for training events being offered by other agencies. The system also allows users to select the training categories in which they want to participate. If such training is entered into the system as available from another ProviderNet agency, the interested user is notified by e-mail when registration begins. This arrangement allows agencies to use existing resources to train new volunteers, staff, and board members.

Cross-training events also are posted on the online Training Center. Annually, each ProviderNet agency offers at least one event geared specifically to cross-train users from other community agencies. Such cross-training can include information about a particular type of victimization, the agency's services, or the agency's philosophy.

A VS2000 system administrator runs the online Training Center. In addition, each ProviderNet agency has assigned a staff

member as the training contact for the online Training Center. The training contact is the point of contact within the agency for training in using and evaluating the center, suggesting enhancements to the center, and assuring appropriate use of the center.

Case Management System

To create a seamless network of services, VS2000 staff asked victim service providers how best to fill the current gaps in services. The responses of the victim service professionals echoed the responses of the crime victims in the focus groups and surveys conducted by VS2000 staff: all agreed that a Case Management System could help fill service gaps and bring appropriate services to victims.

When victims of crime must talk about their victimization over and over again, they feel revictimized. When victims of crime summon the courage to request services from one agency and are told they must call yet another agency, they feel revictimized. When victims of crime are offered a limited range of services instead of being asked what they need, they feel revictimized. These are problems CMS will address. Currently under development, CMS will be fully operational by December 2001.

The Case Management System operates on three principles:

- Victims should not have to undergo duplicative intake procedures when requesting services from different agencies for the same victimization incident.
- Victims should feel that services are being provided by a connected system or network.
- Sharing information among multiple service providers, with the consent of

the victim, is a good way to achieve a connected system or network of services.

The CMS concept is an improvement over other case-tracking systems because it offers victim service providers a comprehensive tool for gathering and exchanging victim service information, including assessing and tracking critical, intermediate, and long-term needs of victims of crime across multiple agencies. Through CMS, victim advocates can use a standard intake and assessment process, make electronic referrals for service with other providers, ensure services were delivered, collect victim feedback, and prepare automated reports. This valuable exchange of information is possible because security was a top priority for the creators of CMS. They designed CMS to be a safe conduit for sharing information among community-based victim service providers.

Twenty agencies use CMS to provide services to meet the specific needs of crime victims in a culturally sensitive manner. Eighteen of these are community-based agencies that share case information through CMS. Two agencies are based in the criminal justice system and operate in a stand-alone context, using CMS only to track services and provide case management within their own agencies. This is to protect victim confidentiality because any information about victims received by them is open to discovery by defense attorneys. Another agency, Denver's largest hospital, has a sophisticated case management system in place and uses CMS only to track the success of referrals made to ProviderNet agencies.

Sharing case records among organizations was a new and innovative idea in victim services and further development was required before it could be automated. The Case Managers' Committee was formed to

help the technology project manager and software developers define the standard forms, rules, policies, and procedures to be used in this project. This joint work became the basis for the design and operations of CMS.

All 20 CMS agencies agreed to use the standard intake and assessment forms that were generated for CMS based on each agency's actual intake and assessment procedures. In addition, forms were customized for each agency to collect information specific to the agency, such as community education, funding reports, and service delivery assessment.

Under CMS, when a victim requests services from one community-based ProviderNet CMS agency, a CMS staff member asks the victim whether he or she is currently receiving services from another ProviderNet agency. If the victim is receiving services from another community-based ProviderNet agency, the CMS staff member, with the victim's consent, electronically acquires the completed intake information. Or, if the victim is receiving services from a criminal justice agency, the CMS staff member identifies a criminal justice contact for coordinating advocacy for the victim. If the victim is not receiving services elsewhere, the intake and assessment are completed at that time. From the assessment, a service plan is developed for the service provider and victim to follow as they work together. The service plan also provides a way to follow up on referrals for service with other agencies. During their work together, the service provider may identify additional referrals for the victim and use the online Resource Directory to search for, print, and electronically record these referrals. When such referrals are made within CMS agencies, the CMS provider can again use the Resource Directory to search for, print, and electronically record and forward the victim's intake,

assessment, and service information. It is up to the victim whether to share his or her case record with one or many ProviderNet agencies. Written consent forms are printed individually for each referral agency. Advocates' confidential case notes are never shared among agencies; they are kept separate and are not attached to the intake, assessment, or service history documents.

The Case Management System makes administrative tasks much easier for victim service agencies. Agencies can generate a client satisfaction survey at any point in a case. Cases can be stored on CMS and retrieved immediately for up to 10 years. For periods longer than 10 years, cases are archived and can be retrieved by the system administrator upon request. Data in CMS allow agencies to electronically generate grant reports for the Victims of Crime Act (VOCA), the Domestic Abuse Assistance Program Act (DAAP), and local victim assistance program funders.

Security has been a primary concern in developing the VS2000 technology system. Although very little information in the Resource Directory and Training Center needs high security, CMS does contain confidential information that is secured through measures at the user and system design levels.

Security at the User Level

All victim service providers who are part of the VS2000 ProviderNet have access to the Resource Directory, the Training Center, and CMS. A technology contact within each agency is responsible for notifying the VS2000 system administrator when staff members join or leave the agency. When a new staff member is added to the user database, he or she is assigned a login identity by the system administrator. Then, the new employee enters the system using three levels of

password protection known only to the individual and administrator. The password is composed of a portion of the new employee's social security number, the new employee's mother's maiden name, and an alphanumeric combination chosen by the new employee. When a staff member leaves an agency, the system administrator can immediately remove his or her access to the system.

CMS also has user security levels within the system to ensure that staff members in victim service agencies use CMS only within the parameters of their job duties. For example, *intake/data users* can only enter data into the system and cannot access existing case data. *Service provider users* can enter and edit data in their own cases and run reports. *Supervisor users* can delete records and reassign cases. The system administrator is a *super user* and controls access for all users.

In addition, victim service providers in criminal justice agencies never share case records with other providers. These advocates use CMS only as a stand-alone application within their own agencies. Their case data do not reside on the VS2000 server but on the servers physically located within their own agencies.

Security at the System Design Level

Security was factored into the design of CMS. Although any computer with an Internet connection can access the Resource Directory and the Training Center, this is not the case for CMS, which relies on user location to verify legitimate users. Like using a file cabinet in an agency, where one must be in the file room and have the correct key to get into the cabinet, a CMS user has to be at a computer terminal inside one of the 20 ProviderNet agencies and have a valid login identity and password to gain access to CMS information.

CMS runs on a network server maintained by the system administrator. When agencies share case records, a *specific user* at one agency sends a message to the server to share certain data with a *specific user* at another agency. Supervisor users can reassign cases when a user on their staff is on vacation or leaves the agency. All records entered into the system by a particular agency are the property of that agency and cannot be accessed by other users outside the process designed for sharing. Case notes, which may contain confidential information, are never shared with another agency, even when a case record is shared. However, case notes can be shared among staff within an agency.

Sharing case information is permitted only with the victim's informed, written consent. The computer process for sharing case information mirrors the paper process that has historically been used by victim advocates. When an advocate wants to make a referral or get information from another ProviderNet agency from which the client is currently receiving services, the advocate provides the client a written consent to release information form that is generated by CMS for each referral agency. Once the victim signs the consent to release information form, it is entered into CMS and allows sharing of case information. The originating agency keeps a copy of the signed form on file.

CMS affords further protection to its users. Data are not sent over the World Wide Web, where others could gain access to them. Rather, VS2000 agencies use digital subscriber lines (DSL) to connect to the server that runs CMS. DSL is a highly secure, "always-on" Internet connection that allows case records to be shared via a private network, or intranet. In addition, the system has a sophisticated firewall between the

VS2000 server and the Internet that blocks unauthorized users or "hackers."

The physical security of the VS2000 server is maintained at all times. The server is located in a community agency in a locked room to which only the system administrator and backup administrator have access. Operational procedures require that all system administrator candidates undergo a criminal history check.

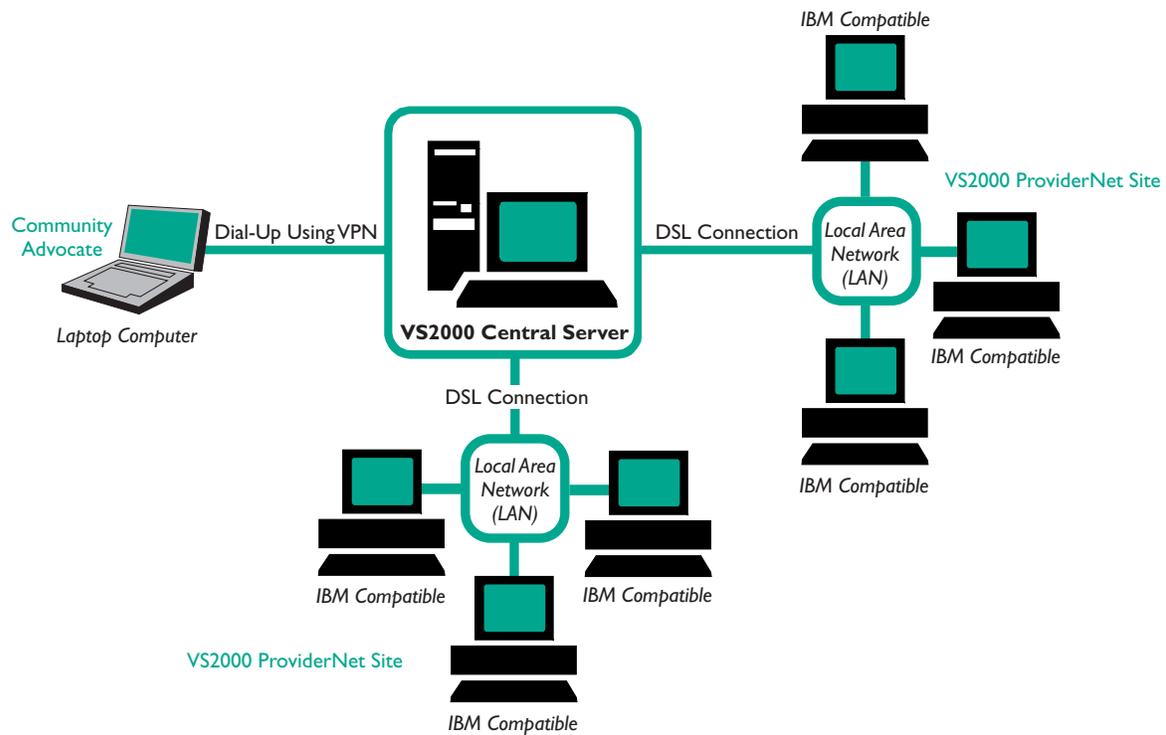
The combination of these procedures has assured victim advocates in Denver VS2000 that victims and their case records can be kept safe.

Technical Description of System Design

Exhibit 1 illustrates the architecture of the VS2000 information system.

Web-Based Technology

Traditional client user/server architecture for the implementation of information systems consists of special software that runs on both the server machine and the individual client user machine. The software is maintained for both and must remain synchronized to perform properly. The server machine typically stores the database records associated with the information system and "serves" those records to client users when requested. Whenever the information system is upgraded to fix bugs or enhance functions, both server and client software must be updated. Any client machines that need the upgrade must have the new software installed. While this type of information system maintenance is common, it introduces greater chance for errors and increases the complexity of the computer network for the system administrator as well as the complexities associated with managing

Exhibit I: Denver VS2000 Information System Architecture

the development and configuration of software components.

In the past few years, new Web-enabled development technologies have provided another option to developers of information systems. Web-enabled systems typically require the development of only one component that runs on the server. Each client who wishes to use the software can simply access the Internet, intranet, or Virtual Private Network (VPN) through a Web browser application, such as Microsoft Internet Explorer or Netscape Navigator.

The information system for VS2000 uses Web-enabled technologies for several reasons:

Less expensive development upgrades and releases. When providing upgrades, VS2000 needs to maintain only one software application rather than several.

Less disruptive upgrades and releases at user sites. When a new release of software is available from VS2000, no one will disrupt users to install new software on their machines. The installation will occur seamlessly from the server. Although new software installation may require additional training for users to learn new upgrade functions, it will not create computer "down time" and service visits to users' computers.

Independent operating system and platform for user equipment. To accomplish client user/server implementation in the past, the client user and the server had to have the same operating system and

often the same type of equipment. For example, if the server used an IBM operating system and equipment, the client user could not successfully use the information system of a Macintosh computer. However, since technological improvements have made Web-enabled implementation possible, client users now can use different operating systems and equipment and still successfully use the application without special software. The client user's machine will simply need to have an Internet Web browser installed.

By selecting Web-enabled technologies, the VS2000 network has many options when configuring client user machines to access new information systems. This approach to development and deployment of software is the best choice for the diverse set of clients in the VS2000 CMS network.

Operating Platform

VS2000 chose Microsoft Windows NT as the platform for the server of its information system. This operating system enables stable server implementation and allows the use of a Microsoft SQL server as a database management system for the back end of the VS2000 Case Management System. As stated above, CMS will run on any system with a Web browser. Microsoft Internet Explorer 5.0 has been installed on each of the machines in the network to make training easier and more consistent, but this is not a requirement of the case management software. Training and setup become much simpler with this layout, and the system is more easily replicated because there are no proprietary components.

Minimum Specifications

The minimum specifications for a stand-alone system in the network to access CMS, but not share records, are Windows 95, Pentium/200mhz, 2 GB hard drive, 32 MB RAM, Internet Explorer 5.0, and Microsoft DUN 1.3. Stand-alone systems either will use their agency's networks to dial into the Internet or use an Internet service provider like America Online to access other parts of the VS2000 information system such as the Resource Directory and Training Center.

The minimum specifications for a system networked on the secured WAN to share case records are Internet Explorer 5.0, Pentium/200mhz, or Power PC. While at least 32 MB RAM and a Pentium/200mhz machine are recommended, there are no absolute hard disk or memory requirements.

System Capacity

The system being developed has 15 gigabytes of space available to hold case

records. Currently, the largest amount of space available to store information is approximately 40 kilobytes. With 10,000 new case records created every year, the system will hold more than 30 years' worth of case record data if the number of case records produced annually does not increase. This increased capacity will make it possible for the system to maintain three times the current capacity of stored data for 10 years before a single record must be archived.

Confidentiality and Security

VS2000 uses DSL to provide secure network connections among all agencies that share case information. The key benefit of DSL is that it uses the existing infrastructure of installed copper cables to transmit data via telephone lines. This saves the costs of installing a dedicated, wide bandwidth, fiber optic cable, which can range from \$1,000 to \$1,500 per site. Unlike most alternatives, DSL technology does not require a large initial expenditure and is therefore very attractive to those with access to existing copper telephone lines. As new organizations demand service, individual modem links can be provided, incrementally increasing the costs.

To provide security and keep CMS data confidential, a software application called a "firewall" will be installed at the centrally located server. Each user in each agency in the secure network will be required to provide authentic user identification and a password to access the secure private network. In addition, a hardware device called an R7100 Router has been installed at each of the agencies that share case management information in the secure network. This device guarantees that case management information is transmitted only between recognized Internet Protocol (IP) addresses.

VS2000 also will use VPN, which allows community advocates to gain access to the system over an encrypted connection from laptops in the field. VPN also allows easy expansion of the information system so additional agencies and users can be added to the VS2000 network. A minor software installation on an individual user's computer makes this possible, provided that the user has access to the Internet.

Exhibit 2 illustrates the flow of information in the VS2000 information system and the roles of all those involved in its use, including users, administrators, and funding agencies.

Implementation of the Information System

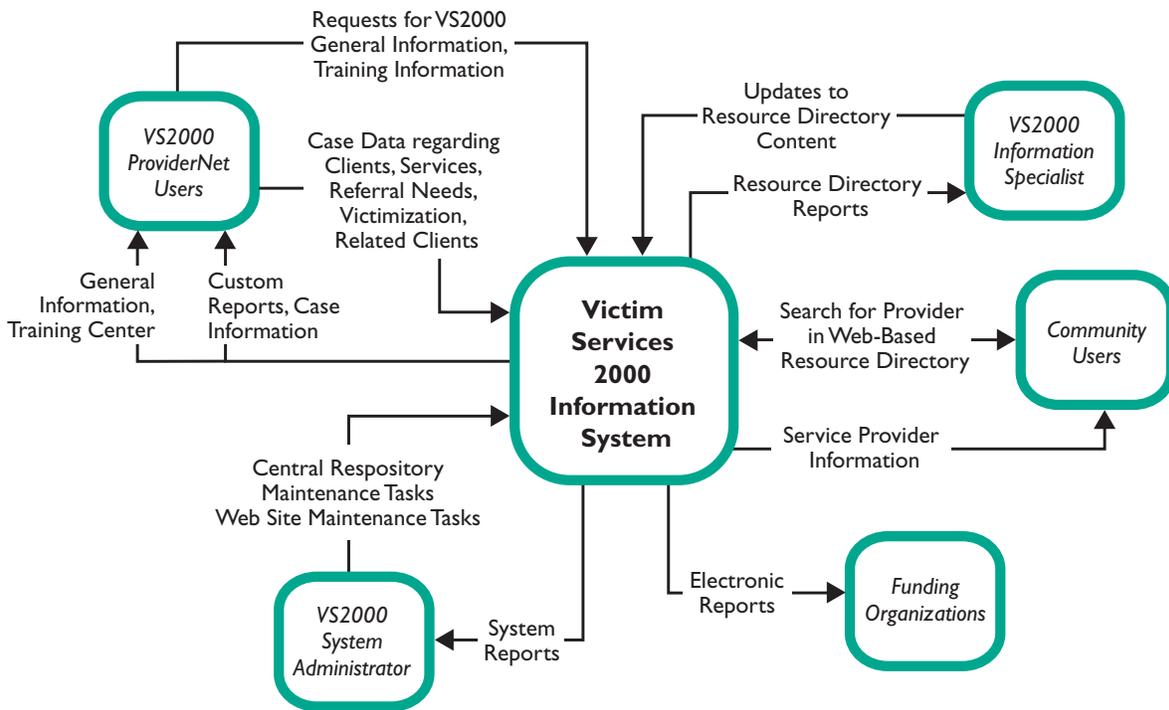
Project Management

As a group of victim service providers with no significant technology expertise, VS2000 staff found planning and implementing a major technology initiative were daunting tasks. One of the most critical decisions made during the development and funding of the project was to obtain the services of a technology project manager, whose expertise was essential to project success. Regardless of the domain in which they are built, all information system projects benefit from having a project manager oversee their execution.

Technology Project Manager

The VS2000 technology project manager organized and oversaw the development of the entire VS2000 system, including analysis of requirements, project planning and implementation, and pilot testing at user sites. The technology project manager performed many tasks during these phases of development, including meeting with potential system users to

Exhibit 2: Denver VS2000 Information System Process Flow



determine their needs; designing the system based on those needs; planning and estimating the project; analyzing risks; scheduling resources; allocating budgets; and facilitating discussion among staff, users, system developers, and contractors. Given the complexity of the VS2000 information system, one person maintaining consistent oversight throughout the development process was crucial to successful implementation.

Documentation

The technology project manager developed several documents critical to the success of the project, including requirements specification and design documents. The requirements specification detailed all functions required by users, all data that had to be collected and processed by the system, and all reports that the system had to produce. User security requirements, data confidentiality

requirements, and special processing functions, such as backup and recovery of data, also were included in this document. The design document was created to assist the software development team during the implementation of the information system. It describes in detail each of the system functions, such as “open a case” and “close a case.” The design document also includes rules, data to be processed, process flow, user input, and system output. These two documents—the requirements specification and the design document—were critical in the development of a Request for Proposals (RFP) and the subsequent selection of a vendor to develop the VS2000 system.

Hardware Assessment and Acquisition

For ProviderNet members to successfully use the system being designed, the capacity of ProviderNet agency computer

equipment had to be assessed to determine if it could access the system. The long-term, complex assessment gave agencies an opportunity to take stock of their technological capacity. In addition, the prospect of new computer equipment motivated agencies to become involved with the project.

A technology survey was created and conducted twice during the development process. Administered first to obtain a baseline of the types of equipment existing at each site, the information collected was then included in a technology profile for each site. Minimum hardware specifications were developed as part of the system design specifications, and this information was distributed to ProviderNet agencies for use in their own grant applications. Agencies requested and were granted computers from the state VOCA board, making a second survey necessary.

Administered 6 months later, the second survey updated the technology profiles before project management ordered equipment for installation at the sites. Two sets of site visits were necessary to complete this assessment. These visits to ProviderNet agencies resulted in several added benefits. VS2000 staff and contractors were able to meet individually with agency staff, get to know them, and help them clarify their technology goals and needs. ProviderNet agencies reported that the discussions during these visits were tremendously beneficial. In addition, VS2000 staff helped install and explain the use of other computer equipment in many agencies and provided training on the use of Windows 95/98, the Internet, and e-mail. These experiences helped build agencies' trust in the project and the project staff.

Several manufacturers and methods of obtaining computers were considered prior to the decision to purchase equipment. The high operational costs associated with maintaining a lease program throughout the year for all sites was not within the scope of the project. Therefore, computer equipment was purchased from a vendor using several criteria, including price, service agreement, and quality of equipment. A total of 13 workstation computers and 3 server computers (one central server and two SQL servers for stand-alone agencies) were purchased for the project. The technology project manager and the system administrator installed the computers. The system administrator also installed Local Area Networks (LANs) within each of the community-based ProviderNet agencies that use CMS. ProviderNet agencies found this to be a tremendous benefit.

Assistive Technology for People With Disabilities

In the past decade technology has become a bridge between the disabled and nondisabled worlds. Computers and computer-based programs and equipment have begun to take the place of eyes, ears, and limbs. Assistive technologies provide helpful tools to agencies that work with people with disabilities. These technologies have allowed individuals who might otherwise not receive services to be independent and actively involved in the decisionmaking process for themselves.

Several innovative technologies have been designed to help people with visual impairments use computer-based technology, allowing them to operate a computer with ease and efficiency and negating the need to have information translated or read aloud. Software is now available that allows the user to print pictures from the computer screen as raised-dot, tactile, graphic presentations. Personal Brailers are available that can work with any computer on the market. Write: OutLoud is a talking word processor that individuals with learning or physical disabilities may find helpful. IBM's Screen Reader converts screen information into speech, enabling users to hear, rather than read, words on the screen. Finally, there is Home Page Reader, which provides Web access to people who are blind or visually impaired.

Companies such as IntelliTools Inc. create and distribute alternative keyboards and software for individuals who have physical, visual, or cognitive disabilities. Text Help develops software that addresses the writing needs of people with learning or other cognitive disabilities. Able Net is known for line switches for use by individuals with physical disabilities and augmented communication devices. Mayer-Johnson is best known for its picture communication programs that often are used by individuals with developmental disabilities. IBM and other companies help people with disabilities acquire modified computers for personal and work use.

Funding sources such as the Victims of Crime Act (VOCA) provide grants to victim service providers for the purchase of assistive equipment to increase access to services and upgrade existing equipment and software. Information on assistive technology can be obtained from the Internet and local companies, several of which are listed in the Additional Resources section of this bulletin.

By Debora Beck-Massey

Selection of a Vendor

After the requirements for the system and hardware needs had been determined, VS2000 staff began the process of finding the best possible vendor to customize and build software to meet those needs. VS2000 staff developed an RFP that included the system requirements and design specifications. This RFP was distributed to software developers around the country. A panel of local technology experts and VS2000 staff reviewed the seven responses received and made their selection based on adherence to design specifications and system requirements, experience, and affordability.

Pilot Testing

The motto “pilot and refine” has been the mainstay of VS2000 technology development. Every effort has been made to meaningfully involve end users in the development of the information system for two reasons. First, involvement of end users will result in a more successful system. An information system designed by its end users is much more likely to meet their needs and be an effective tool when they use it. Second, involvement of end users will help psychologically as these end users make the transition to the new system. The introduction of technology into victim services represents a huge cultural change that cannot be underestimated. End users who have had a meaningful role in developing the technology they now must use are more likely to feel comfortable with it.

Each component of the VS2000 information system underwent rigorous pilot testing by end users. From the planning stage to the end, the VS2000 Technology and Automated Systems Team oversaw all technology development. This team reported directly to the steering committee, the governing body of VS2000. As each component was being developed, agencies

willing to pilot test the applications were solicited. An effort was made to ensure that these agencies varied enough in size, service complexity, cultural orientation, and staff and volunteer makeup to accurately represent all end users. Based on recommendations from the project manager and system developers, the Technology and Automated Systems Team oversaw the development of pilot processes, including the selection of sites, duration of testing, development of test questions, and analysis of collected data.

The online Resource Directory was subjected to pilot testing by five victim service agencies and ongoing testing by the Resource Directory system administrator. The online Training Center was tested in two phases by a group of 29 service providers representing 20 agencies in group sessions, and again by the VS2000 Web site administrator during its later development.

The CMS pilot-testing plan involves three phases. In phase one, five agencies reviewed the standard intake and assessment screens. Phase two allows all 20 ProviderNet CMS agencies to review their customized intake and assessment forms and the general case management activities. In phase three, seven agencies will test the three kinds of reporting (shared, standard, and customized), client evaluation, and remote data entry functions.

Operational Procedures

Denver VS2000 staff knew that it was far preferable to automate procedures that already exist rather than create new procedures. However, due to the complexity of the VS2000 information system and the timelines imposed by grant funding, this was not possible. Therefore, it was critically important to create operational procedures to solidify the relationships and procedures implicit in the information

system and to employ a quality system administration. The operational procedures will be completed in a parallel process with CMS development and will be available December 2001. These procedures will be developed by ProviderNet agencies and will include the specific and necessary use of applications, policies, and procedures within each agency to support appropriate, effective system use. The procedures will also delineate the roles and responsibilities of all parties involved.

System Administration

As discussed earlier in this bulletin, the Resource Directory is a powerful tool because it is maintained daily by a skilled information specialist who understands technology, knows the dynamics of victimization, and is familiar with the agencies that serve victims of crime. Similarly, the system administrator understands both the technical aspects of the system and the critical human factors involved in its use. The system administrator is responsible for the installation, maintenance, and repair of system hardware and for training end users on software applications. The system administrator oversees and keeps current the collection and security of all user information, including e-mail accounts, passwords, levels of access, and security restrictions. While serving as a single point of contact for all users, the system administrator also performs important security functions. If a victim service provider is no longer employed by an agency in the ProviderNet, the system administrator can immediately lock that person out of the system, preventing access to confidential victim data.

Lessons Learned

Plan for Technology

The Denver VS2000 project team soon realized how important it is to plan for

technology rather than letting it evolve around donated equipment and systems. Development of information systems and acquisition of equipment are expensive, and precious grant dollars must be spent judiciously. These factors make it imperative that organizations first develop a technology plan so that information systems can be built appropriately and cost effectively. Many nonprofit technology assessment instruments and guides are available. A summary of the information they offer for developing a sound technology plan follows.

Input From End Users

First and foremost, a technology plan should include a mechanism for continuous input from end users, including victims. Initial information needed for automation and system requirements should come directly from end users through surveys, focus groups, and interviews. Once system development begins, end users should help review progress and offer suggestions at significant development stages. Involving end users consistently in system design will result in a product that meets their needs, enhances their performance, and benefits their clients. The introduction of new technology within an agency will present a less disruptive cultural change if the victim service providers have been participating in the creation and development of the new system they know will benefit them.

Staffing Plan

Developing technology is a complex process; defining staff roles, responsibilities, and lines of communication are very important. In the beginning, determine who will be responsible for software development and customization, project management, grant writing and budgeting, interfacing with end users, and system administration. Decide who is the best member of the team to communicate with end users and how that communication

will be documented. Who is the best person to communicate end user needs to software developers? If the answers to your questions indicate two people, ask how their communication can be facilitated. Weekly status review meetings with all key players are important for meeting deadlines and managing complexities.

Needs Assessment

A thorough assessment of needs is critical to the success of a new technology project. Several organizations have developed technology assessment tools. The National Strategy for Nonprofit Technology has created a benchmarking tool that helps organizations assess both their use of technology and the prerequisites needed in planning for technology. One/Northwest Online Networking for the Environment has developed a valuable assessment worksheet. See Additional Resources at the end of this bulletin for contact information for these organizations.

Software Development Plan and Hardware Acquisition Plan

Make plans for developing and acquiring software and hardware at the beginning of the process following analysis of requirements. These plans will be revised as the project progresses and details of the system's design become clear.

Project Management

Information system development always benefits from the expertise of a capable project manager. For a successful outcome, it is important that all communications and decisions about system development go through one person with the knowledge and authority to oversee development. Consider several factors when selecting a project manager. The project manager must have broad knowledge of technology to oversee and coordinate activities from programming to procurement. The project manager must

understand all phases of development well enough to spot problems and monitor corrective action. More important, the selected project manager must be able to bring together and communicate well with software developers, program funders, and end users.

For successful development and implementation of the system, the project manager must gain the trust of the end users, who in this case are victim service providers. The project manager must understand that victim service providers belong to a particular work culture and often consider their work more of a mission than a job. The project manager must take into account the unique differences of those who work in the victim services field. For example, corporate workers may experience the introduction of technology into their jobs as just another tool to master to get things done. In contrast, victim service providers are apt to see implications and voice various concerns and questions about the introduction of technology into their jobs. One concern is money. Victim service providers know funds are limited, so they want to be sure expenditures for technology do not shortchange services to victims. Another concern is victim safety. Victim service providers are extremely concerned about how technology may compromise the privacy, safety, and security of their clients. The project manager must address the concerns of the victim service providers in language they understand. Recognizing their passion for their work, the project manager can explain to victim service providers how the technology will allow them to provide more and better services to clients. Hearing their concerns about misspending limited funds, the project manager can explain how the financial investment in technology will return many times its value in terms of the organization's effectiveness and productivity in serving victims of

crime. When explaining to victim service providers that the information about their clients is secure, the project manager needs to explain how secure the information is. Victim service providers know that secure client information will keep their victims safe, so they want reassurance that the system is secure. It is very important that the project manager understand the dynamics of victimization and appreciate the danger to domestic violence victims when perpetrators hack into computer systems and obtain victim information. Unlike typical computer hackers, violent offenders use the information they get to commit more violence, even murder.

How does a group or organization find this perfect project manager? One way is to invite the most skeptical participant in a technology project to help interview candidates for the position. Make sure other end users are involved as well. Ask questions about key issues and listen to the answers. The field of technology is growing very rapidly and so is the field of victim services. Many people want to use their expertise to help others. With some time and thoughtful effort, you can find the right project manager for your project.

To define the scope of work for a prospective project manager, consider the following tasks, which have been adapted from a “job description” developed by One/Northwest Online Networking for the Environment:

- Conduct a formal assessment of the organization’s current capabilities.
- Evaluate existing equipment to determine if it can be upgraded to meet your needs.
- Provide detailed upgrade recommendations.
- Provide specific purchase recommendations for required new equipment.
- Offer cost-effective solutions for the organization’s technology needs.
- Recommend ways the organization can use technology strategically to accomplish its mission.

System Administration and Maintenance

After such a large and complex information system is completed, everyone involved hopes to sit back and enjoy the fruits of their labor—a smooth, trouble-free system. Time for a reality check! Sooner or later, unforeseen operational problems will appear. Inevitably, end users will envision and demand enhancements. This is when maintenance contracts become very important. Generally costing between 10 to 20 percent of the cost of the entire system, a maintenance contract will deal with these issues. In the case of the VS2000 project, a maintenance contract could include the following:

- Adding functions, such as capturing additional data.
- Enhancing the system with new program components, such as the capability to write restitution checks to victims.
- Adding agencies (users) to the ProviderNet, including customizing intake.
- Upgrading the system to take advantage of new software releases, such as Windows NT or new browser versions.

The world of technology, including software applications, is constantly changing. A well-designed software application should meet the needs of its end users for

7 to 10 years, as long as those needs do not drastically change. However, enhancements and upgrades are sometimes necessary to take advantage of new technology or address newly defined needs.

For large and small technology initiatives, system administration and cost are important operational components. As the field of victim assistance attracts a broader and younger range of professionals who are already familiar with computer technology, our agencies will become more technology savvy. Sometimes system administration can be written into a qualified employee’s job description, leading to exciting career opportunities inside or outside the victim assistance field. For a project the size of Denver VS2000, a full-time system administrator with significant network experience is necessary. Information system projects of all sizes need an administrator and a project manager who communicate well in lay terms and understand and respect the context in which victim assistance professionals work.

Buy Versus Build—Software

Three options are available when creating an information system—purchasing a prepackaged software application from a retailer, building a custom software application, or customizing an existing application using internal staff or a software development company. The first step in determining which option is best for your project is preparing a requirements specification for your software. This specification provides a checklist for evaluating existing software applications available for purchase from a retailer. If the software application does not meet the users’ needs as defined in the requirements specification, and the software application cannot be modified to do so, then it is not a good option. The specification can then be used to determine the cost of building a

custom software application by negotiating a contract with a software development company or consulting firm. Estimate each function within the specification for development and completion costs by the software development vendor. If the cost does not fit within the project budget, consider postponing some functions within the requirements specification for implementation at a later time.

Buy Versus Lease—Hardware

Today, buying and leasing are the two options available for the acquisition of computer equipment. Evaluate these options by considering several criteria. First, determine how long the computers will be used by the end user. Keep in mind that computer equipment and components change rapidly. Equipment purchased today is outdated in 1 to 2 years, sometimes sooner. If you expect the computers will be used for a long time before funding will be available to replace them, leasing is the better option because leasing contract terms often allow for equipment upgrading sooner than would occur if you had purchased the equipment. Does your budget allow for ongoing monthly costs? A lease option requires monthly lease payments. If your project cannot afford this monthly outlay of cash, then leasing is not an option for you despite the “length of use” criteria noted earlier.

If you choose the lease option, be sure the lease includes

- **Service and maintenance.** Ongoing service and maintenance for the equipment should be part of the lease agreement. This type of lease can include onsite service, telephone support, and offsite service that requires shipping equipment. If onsite service is included, check for response time. How quickly can support personnel get to your site? If offsite service is

included, negotiate for the availability of replacement equipment when needed to assure little to no interruption in operations during servicing.

- **Software upgrades.** The lease agreement should include equipment upgrades with new software “patches” (to fix software problems) when available from the manufacturer of the preinstalled software. A software upgrade service agreement would automatically make available to the leaseholder any improvements to that software. The leaseholder may decide not to accept an upgrade, but upgrades should at least be offered.
- **End-of-lease option to replace equipment.** Because computer equipment quickly becomes out of date, it is important that the lease agreement include the option to obtain replacement equipment at the end of the lease—not just the option to buy existing equipment.

Implications of the VS2000 Project

Impact of VS2000 System on Delivery of Victim Services

All components have not been completed and integrated, so it is too early to assess the impact of the Denver VS2000 information system. However, anecdotal reports and comments by VS2000 ProviderNet members indicate that system users are thrilled with their new technology and the increased capacity it gives them. They are delighted with the ease with which they now share information with colleagues and serve victims more effectively and innovatively. An evaluation component of CMS will allow VS2000 staff to evaluate the system’s effectiveness

through the eyes of both victims and service providers and use this information to develop system enhancements.

Flexible and Versatile

The VS2000 information system was designed for replication in a variety of formats, contexts, and geographic areas. The Resource Directory may be used by one victim service agency or by a group of agencies that share resources. The resources may be shared by geographic area, as in the case of VS2000, or by particular victim population, such as a coalition of sexual assault and domestic violence programs. The directory may be used to link resources in a particular community, state, or region. Similarly, the online Training Center may be used by a community, state, region, or coalition of victim service providers to share training opportunities and resources. Designed for use by one agency or a group of agencies who want to share case records, CMS offers a powerful case management tool for victim service providers. CMS is the first case management system designed not to be limited to one particular group of victims or clients.

Available to All

The entire VS2000 technology system has been developed in the public domain and is available, free of charge, to anyone who requests it. The question for prospective users of the system is the same one that faced VS2000—to “buy or build?” Components of the system will be available as “off the shelf” products, complete with operating guidelines, ready to install and use. The source code also will be available for prospective users to customize the applications. Please check the OVC Web site for details.

For More Information

For more information about the Denver Victim Services 2000 Project and related products, please contact Denver VS2000 or OVC.

Office for Victims of Crime
U.S. Department of Justice
810 Seventh Street NW., Eighth Floor
Washington, DC 20531
202-305-5983
Fax: 202-514-6383
Web site: www.ojp.usdoj.gov/ovc

Denver VS2000
303 West Colfax, Suite 1300
Denver, CO 80204
Marti Kovener, Project Director
720-913-9256
Fax: 720-913-9090
Web site: www.vs2000.org/denver.htm

For copies of this bulletin, other OVC publications, or information on additional victim-related resources, please contact:

Office for Victims of Crime Resource Center (OVCRC)
Box 6000
Rockville, MD 20849-5500
1-800-627-6872 or 301-519-5500
Web site: www.ncjrs.org
E-mail: askovc@ncjrs.org

Additional Resources

Needs Assessment Instruments

National Strategy for Nonprofit Technology (NSNT) Benchmarking Tool
Web site: www.sustain.org/nsnt

One/Northwest Online Networking for the Environment Technical Assessments

Web site: www.onenw.org/assess

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Denver Victim Services 2000 Steering Committee

AMEND	Denver Indian Health and Family Services
Asian Pacific Development Center	Denver Police Department
AT&T Wireless Services	Denver Sheriff's Department
City Attorney's Office, Domestic Violence Unit	Denver VALE Board
Colorado Association of Black Nurses	Denver Victims Service Center
Colorado Attorney General's Office	Domestic Violence Initiative for Women with Disabilities
Colorado Coalition Against Domestic Violence	Equality Colorado
Colorado Coalition Against Sexual Assault	Federal Bureau of Investigation
Colorado Council of Churches	HECHO
Colorado District Attorney's Council	Justice Information Center
Colorado Division of Criminal Justice	Kempe Child Protection Team
Colorado Oklahoma Resource Council	KWGN-TV Denver
Colorado Organization for Victim Assistance	Muslim Women's Society
Colorado Outward Bound School	Project Safeguard
Colorado State Judicial Probation Services	Promoting Alternatives to Violence Through Education
Community-at-Large	Rape Assistance and Awareness Program
Denver Child Advocacy Center	SafeHouse Denver
Denver Community Corrections	Servicios de la Raza
Denver County Court Probation	Sexual Assault Interagency Council
Denver Crime Victim Compensation Program	The Spiritual Dimension in Victim Services
Denver Department of Human Services	Urban Peak
Denver District Attorney's Office	U.S. Attorney's Office
Denver Health Medical Center	Victim Offender Reconciliation Program
	WINGS Foundation

Benton Foundation Best Practices Toolkit

Web site: www.benton.org/Practice/Toolkit

Other Information Systems

Agency Systems

513-761-5610

Web site: www.agency-sys.com

ebase

Web site: www.ebase.org

IIS (Integrated Information Systems, Inc.)

602-966-8800

Web site: www.iisweb.com

IRis

Benchmark Enterprises

1-800-458-7327

Web site: www.irissoft.com

ITS (Integrated Tracking System)

Texas Department of Human Services

Family Violence Program

512-438-5299

Web site: grp.dhs.state.tx.us/its

National Domestic Violence Hotline

512-453-8117

Web site: www.ndvh.org

SAVAN (Statewide Automated Victim Assistance and Notification)

1-877-NCS-AVAN

Web site: www.ncsavan.org

VAdata (Virginia Statewide Data Collection System for Domestic Violence Programs and Sexual Assault Centers)

Web site: db.rtk.net/vadata/information.html

VINE (Victim Information and Notification Everyday)

1-800-816-0491

Web site: www.vineco.com

Assistive Technology

Assistive Technology, Inc.

Web site: www.assistivetech.com

Lorin Software

P.O. Box 541558

Orlando, FL 32854-1558

Write: OutLoud

Don Johnston

Web site: www.donjohnston.com/catalog/writoutd.htm

IBM Screen Readers

IBM voice of the World Wide Web

Web site: www.ibm.com/able/snsrd.html
or www.ibm.com

Exceptional Computing

Web site: www.exceptionalcomputing.com

Words + EZ Keys for Windows

Web site: www.words-plus.com

NanoPac, Inc.

Technology for Independence

Web site: www.nanopac.com

Magni-Cam

Electronic magnifier

Web site: www.magnicam.com

Other Resources

Center for Non-Profit Technology

Web site: www.cnpt.org

CUSSN (Computer Use in Social Services Network listserv)

Web site: www2.uta.edu/cussn

Information Resources

Philanthropy News Network

Web site: www.pnnonline.org

Promising Strategies and Practices in Using Technology To Benefit Crime Victims

National Center for Victims of Crime

1-800-FYI-CALL

703-276-2880

Web site: www.ncvc.org

Social Ecology Incorporated

Provides nonprofit e-mail and intranet internal communication software

Web site: www.socialecology.com

VAST Inc. (Victim Advocates Software Team)

Provides victim services technology and project management services

Patricia Risley, President

512-633-5089

E-mail: VAST@aol.com

Note

1. In Denver, AT&T Wireless Services provides this 911 program, along with cellular phones and access for nonprofit victim services staff and volunteers working with victims of crime.

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-  2001 Training Calendar

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