

# **SAFE HARBORS DESIGN PROJECT**

**Prepared for the City of Seattle, King County and  
the United Way of King County**

**By the Center for Social Policy  
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## Acknowledgments

The consultant team is extremely grateful for the insights and education they have received from the members of the project's Advisory and Work Groups over the past six months. Peter Steinbrueck, Seattle City Council Member, and Gary Gigot, Board member, United Way of King County, provided the vision and led the charge for participants in the Safe Harbors planning process, including the consultant team.

Members of the Advisory and Work Group spent countless hours between April and September grappling with the complex policy questions that were fundamental to shaping the Safe Harbors design. They argued their points, listened to opposing opinions, stood up for their principles, and advocated on behalf of those they represented. The whole community will benefit far into the future as a result of the work this committed group of service providers, homeless and formerly homeless persons, advocates, planners, and funders undertook together. The names of these persons are listed in Appendix B.

The Safe Harbors staff group was the operational driving force for this planning process. Their collaborative teamwork has been and continues to be a strong and essential foundation for the Safe Harbors plan and its future realization. These persons are: City staff, Alan Painter, Georgia Conti, Mary Shaw, Kim von Henkle, Traci Ratzliff, Tiffany Stilwell, Neil Powers and Maribeth Berberich; County staff, Cynthia Ricks-Maccotan, and Jane Voget; United Way of King County staff, Janna Wilson and Vince Matulionis; Human Services Roundtable staff person, Sandra Clark; and Conner Sharpe and Bill Goldsmith.

We are also extremely grateful for the expert assistance we received from Robert Hunner and Pete Brissing of Northwest Resource Associates. In particular, they provided critical coordination and facilitation functions early in the planning process and took a lead in administering the technical assessment survey. They also provided us with a place to hang our hats and to carry out our thinking and writing work when we were on site in Seattle.

# SAFE HARBORS DESIGN PROJECT

## 1. Context of the Safe Harbors System Design Process

This countywide project stemmed from long-standing efforts by funders, planners, service providers and consumers to effectively prevent, address and reduce homelessness in Seattle and King County. They recognized that families and individuals must deal with an unending maze of dead ends and red tape in their efforts to obtain the resources and services they need, and that city and county homeless service planning decisions are, for the most part, made in the absence of sound information.

In response to these problems with the current service system and planning approaches, the City of Seattle, King County and the United Way of King County joined together as partners to spearhead and shepherd this regional initiative. In Fall 1999, the City of Seattle led the way by devoting funds to hire design consultants and by passing legislation laying out the following objectives of a Safe Harbors System.

<b>Objectives of the Safe Harbors System:</b>
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|--|
| <ul style="list-style-type: none"><li>• Improve quality of client services and provide faster linkage to housing, benefits and services</li><li>• Identify gaps in the service system</li><li>• Provide an unduplicated count of homeless men, women, and children</li><li>• Improve the availability of data to aid the City and its funding partners in making planning and funding decisions about services provided to homeless people</li></ul> |
|--|

In Spring 2000, the Center for Social Policy, University of Massachusetts Boston consultant team was hired to develop the Safe Harbors design. The consultant team in turn sub-contracted with Northwest Resource Associates (NWRA) as local Seattle-based partners in carrying out this work. A Safe Harbors staff team comprised of city, county, United Way, and Human Service Roundtable planners took the lead in steering the planning process, in informing local governments, key community service organizations and advocacy groups about the purpose and status of the design process, and in soliciting feedback on the system design as it progressed.

Extensive community input has influenced the proposed Safe Harbors design. Specifically, members of the Safe Harbors Advisory Group and Safe Harbors Work Group have spent countless hours over the past six months discussing, gathering information, disagreeing, and considering options for the design and implementation of the system. These persons are listed in Appendix B.

Many aspects of the Safe Harbors system are controversial. While wide agreement has been reached on many aspects of the design, consensus is not expected on some system design issues. For example, an area of wide agreement is the use of computer technology to enhance the information and referral services within the county. Everyone agreed that families and individuals should not have to “call in circles” to find out about openings for services and resources they need. All agreed that state-of-the-art technology should be utilized to ensure that homeless persons have accessible and culturally-appropriate avenues for learning about their eligibility for public assistance benefits, and for obtaining these benefits with as little red tape as possible.

An area of considerable controversy is the electronic sharing of client records between service agencies. Some service providers who participated in the planning process for Safe Harbors would like to use computer technology to coordinate services with and for clients by electronically sharing client records in accordance with local, state and federal privacy protection laws. Other participants in the planning process vociferously oppose this use of computer technology arguing that the risk of harm to homeless persons is high; they believe that the same technology could and would be used to deny services to those clients with challenging behaviors, for example.

In the face of these diverse opinions, the consultant team has made a public commitment to incorporate community input, including minority opinions, into the system design recommendations to follow.

The consultant team was asked to craft a Safe Harbors design that would be focused on the needs of persons who are homeless, not those who are at risk of becoming homeless. However, the key components of the design to follow will have relevance for homeless prevention efforts within King County.

## **2. Process Used to Develop Recommended Design**

**Key Policy Questions.** Decisions on several important policy questions needed to be determined to inform the design of the Safe Harbors system, including: how the privacy protections will work, what common set of data elements all service programs will collect from the people they serve, whether participation in the system will be voluntary or mandatory, and how the system will be structured. As of September 2000, consensus has been reached on many of these questions, including the privacy protections and basic system structure. Agreement has not as yet been reached on conditions of client and program participation, processes for selection of the Central Server organization, or the standardized set of data elements Safe Harbor service programs will be expected to collect from the persons they serve.

**Process for determining Safe Harbor policies.** As mentioned earlier, Safe Harbors Advisory and Work Groups were established at the project’s inception as the primary vehicles for answering the key policy questions referred to above.

**Legal analysis.** Steven Gross, lawyer with the City of Seattle, carried out an analysis of the current federal and state laws governing the protection and sharing of identifiable client–level information relevant for Safe Harbors.

**Review of existing systems.** It is desirable for the Safe Harbors System to build upon the systems already in place within the county. For this reason, the Safe Harbors staff, the consultant team and NWRA staff reviewed the array of existing information/referral and other computerized data systems currently in use within King County. They also reviewed the experiences of jurisdictions elsewhere in the country that are further along in their system-wide homeless services data collection implementations. To inform the design recommendations, the consultant team also drew upon another project they have recently completed, that is a HUD-funded technical review of existing vendor-developed Homeless Management Information Systems (HMIS) software currently in use and available for purchase by non-profits and local jurisdictions.

**Technical assessment of service provider agencies in Seattle/King County.** Another information gathering activity that informed the design to follow was the administration of a mailed survey, a vehicle used to assess the current technical capacity of homeless service agencies in the County.

**Review of funders’ data requirements on service agencies.** The final information gathering activity undertaken is still in process. That is, a review of the reporting requirements currently in place for homeless service agencies in the county. When this analysis is completed, the participating community will know which core data elements are required by more than one funder and will be in a position to initiate dialogue with these funders in an effort to develop realistic options for streamlining the reporting requirements for homeless service organizations.

### **3. Guiding Principles and Community Vision**

**Bottom line requirements for the Safe Harbors System as articulated by the City of Seattle, King County and the United Way of King County are :**

“An outcome-based, computerized system to facilitate timely, efficient, and effective access to needed services and supports for persons who are homeless in Seattle and King County.

Two components:

- Timely linkage of individuals and families to the services and supports they need

- Accurate data about the nature and extent of homelessness in Seattle and King County to assist in identifying and addressing system gaps and barriers.”

**Bottom line requirements as articulated by the majority of community participants in the planning process are:**

- Privacy protections need to be a primary consideration in the design of the system.
- Service agencies should not bear the burden for funding the implementation of Safe Harbors. Resources for housing or support services needed to prevent, address and reduce homelessness in Seattle/King County should not be diverted to fund the implementation of Safe Harbors.
- Data generated through the Safe Harbors system should be used to increase housing and service resources, and identify service gaps and effective service delivery. These data should not be used in any way to deny or prevent homeless persons from receiving the services and resources they need.

**Shared Hopes for a Safe Harbor System.** In April 2000, the Safe Harbors Advisory and Working Groups articulated their collective hopes for the Safe Harbors System. This visioning process<sup>1</sup> surfaced the following shared hopes that all involved participants held in common.

**Easy access to resources for individuals and families who are homeless or near homeless:**

- No barriers to needed resources, including elimination of red tape and duplicated assessment processes;
- Culturally competent resource delivery;
- A match between what individuals and families ask for and what they receive;
- Individuals’ and families’ timely and direct connection with needed resources, including public assistance benefits;
- Attention to individuals’ and families’ strengths, desires and needs;
- Recognition and acceptance of the diverse paths and choices individuals and families make for themselves when they are dealing with their homeless situation.

**Effective use of data generated through a Safe Harbors system:**

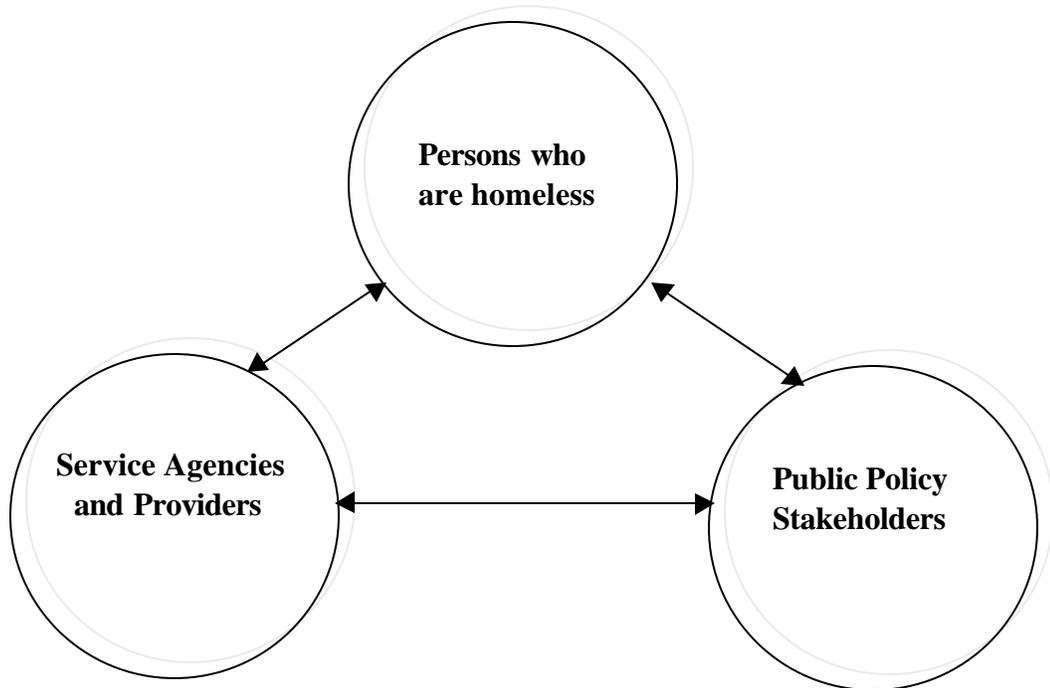
- De-identified aggregate data available to all stakeholders;
- Data used to identify system gaps and barriers;

<sup>1</sup> The April 2000 visioning process resulted in a visual drawing crafted by Kevin Woodson that is currently viewed as a draft. As the Safe Harbors design process proceeds, the drawing will be revised to reflect the recommendations that emerge.

- Data used to increase public awareness and mobilize public action that results in increased resources for improving the Seattle/King County response to homelessness;
- Maximum protection of the privacy rights of individuals and families who use services that are part of the Safe Harbors System;
- Streamlining of the administrative reporting requirements for agencies serving individuals and families who are homeless.

A framework for realizing these hopes is to ensure that the Safe Harbors system provides benefits to three primary groups of stakeholders.

### TRIANGLE OF BENEFITS



**Figure 1. The Triangle of Benefits**

If Safe Harbors is to be effective, homeless persons, homeless service providers and agency heads, and the public policy community should benefit from its implementation. Among the anticipated benefits, as articulated by the Safe Harbors staff team, September 2000:

*“For homeless men, women and children, Safe Harbors will make it easier to learn about and access the different types of shelter, services, and public assistance benefits that are available and that they are eligible to receive.*

*For homeless service providers and agency heads, Safe Harbors will make it easier to get information about services for their clients and will help streamline data collection and reporting.*

*For funders, planners, Safe Harbors will provide “big picture” data about homelessness in King County, information that is needed to help clear bottlenecks, garner resources, and improve the overall continuum of care for homeless persons.*

*For the community as a whole, over time, Safe Harbors will provide increasingly useful information on what works best for supporting homeless persons in their work to regain and maintain stability. This kind of understanding can ultimately lead to reductions in homelessness.”*

## 4. Proposed Design

This section of the Safe Harbors design report describes the proposed design for the countywide outcome-based, computerized, coordinated intake and referral system to facilitate timely, effective and efficient access to needed services and supports for persons who are homeless in Seattle/King County.

The design is presented at three operational levels:

- Level 1. Information and Referral
- Level 2. System-wide Information
- Level 3. Case Management and Sharing

As mentioned earlier, the design was influenced by the various perspectives and views presented by numerous participants in the process, who directed the consultant team to use the following design guidelines:

- The Safe Harbors system design should be flexible enough to allow agencies to participate in Safe Harbors at different levels within the “bottom line” requirements;
- A Level 3 component is not a direct recommendation, since it addresses issues that go beyond “bottom line” requirements;
- Level 3 is included as part of the design to accommodate the interests of those agencies who are willing, on a voluntary basis, to use a Level 3 component;
- Any agency participating in Level 2 will have the technical capability to implement a Level 3 operational model.

The following sections describe in detail the design of a Safe Harbors application for the three operational levels. For each level, we describe the different major components of the application and the major configurations (i.e. operating on a single computer, operating on a network of computers within an agency, and the role of the central server application). We also describe here the typical processes that users will be engaged in when using the Safe Harbors application.

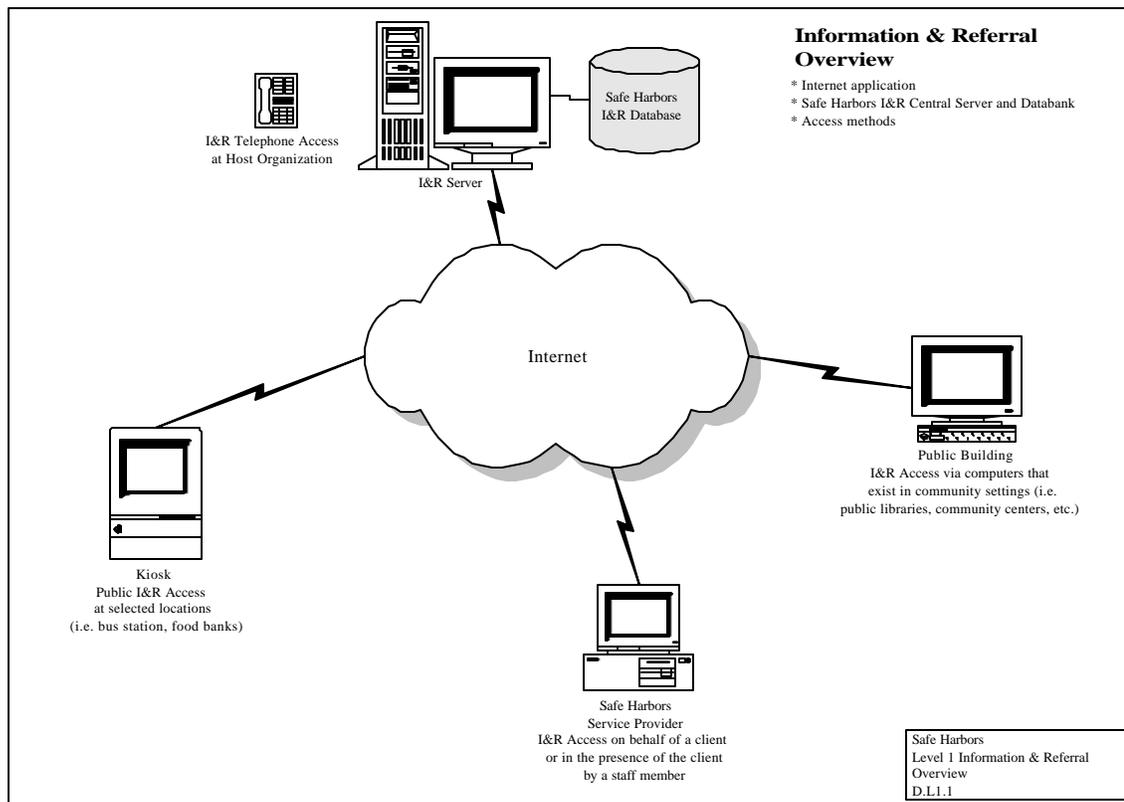
### Level 1. Information & Referral (I&R)

**Description.** The I&R component is the part of the system that provides coordinated information on services available within King County and provides its users with the ability to streamline the eligibility and referral processes. It collects information about referral transactions without retaining any individual client data. The objective of Level 1 is to provide real-time centralized information for consumers and providers about resource availability and eligibility requirements, and a consumer-friendly network that will enable consumers to obtain services and resources in as timely and effective manner as possible.

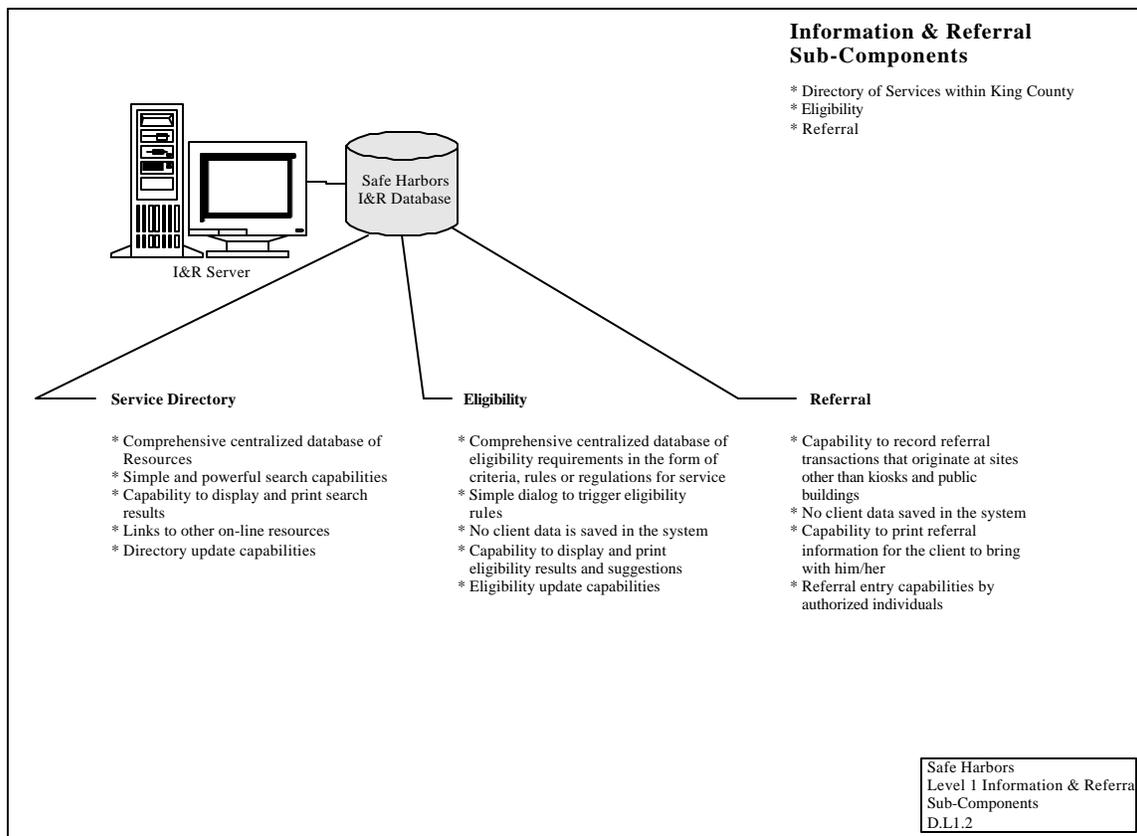
**Services.** The I&R component will provide three fundamental services: I) real-time directory of services within King County; II) support to determine client eligibility; and III) capabilities to conduct effective referrals for clients. These fundamental services have three levels of functionality (see Figure 2 ):

- a) I&R services provided by the organization that will host the Safe Harbors I&R service.  
 Clients may directly contact (e.g. via *telephone*) the I&R host agency who may conduct the I&R service over the phone.
- b) I&R services that are accessed by provider agencies who are participating in Safe Harbors.  
 A staff member of a participating Safe Harbors provider organization may access the I&R service *on-line*, on behalf of a client and/or in the presence of the client.
- c) Information services accessed *on-line* by the consumer (*Self query*).  
 At a public location (i.e. public library, health clinic, etc.) a client conducts his or her own search of the on-line directory.

These services and their functionality are described in the next section. Figure 2 shows an overview of the I&R system. An I&R organization hosts the “Safe Harbors I&R Database” which is accessible via Internet. This organization also provides direct information and referral services to clients. The diagram also shows the various access methods proposed.



**Figure 2. I&R Overview**



**Figure 3. I&R Components**

Figure 3 shows the I&R Components:

- Service Directory
- Eligibility
- Referral

**Real-time directory of services within King County.** The real time directory is an Internet-based database system that allows its users to interactively search for and obtain services and resources within King County. By “real-time directory” we mean that there is a direct, uninterrupted communication between the station where the user is accessing the directory and the server where the directory resides. This part of the system will contain relevant information on all possible organizations and programs, relevant for homeless and near-homeless individuals and families, available on the system. The core system features include the following:

- Comprehensive centralized database
- Coordination mechanisms

- Internet application to search, review, assess eligibility and print selected information.

**Eligibility.** The criteria, rules or conditions under which men, women, and children can obtain services they need or want are recorded and maintained in the Information and Referral components of the Safe Harbors system. It should be noted that a distinction must be made between two types of eligibility. Simple eligibility refers to the criteria, rules or conditions that enable individuals or families to qualify for services. Complex eligibility refers to the more elaborate process for determining access to entitlement programs. This distinction is necessary because the process for assessing the two types of eligibility may vary. Simple eligibility is based on simply matching a very few set of criteria. It can be performed without assistance and requires a relatively small amount of data collection. Complex eligibility, on the other hand, may necessitate that individuals be assisted to complete application forms and may involve a significant amount of data collection.

Complex eligibility assessment under Information and Referral may collect client data to assist in the assessment, but it will not be saved in the system. Therefore, upon conclusion of the eligibility process, data collected about clients will not be saved on the local or the server computers.

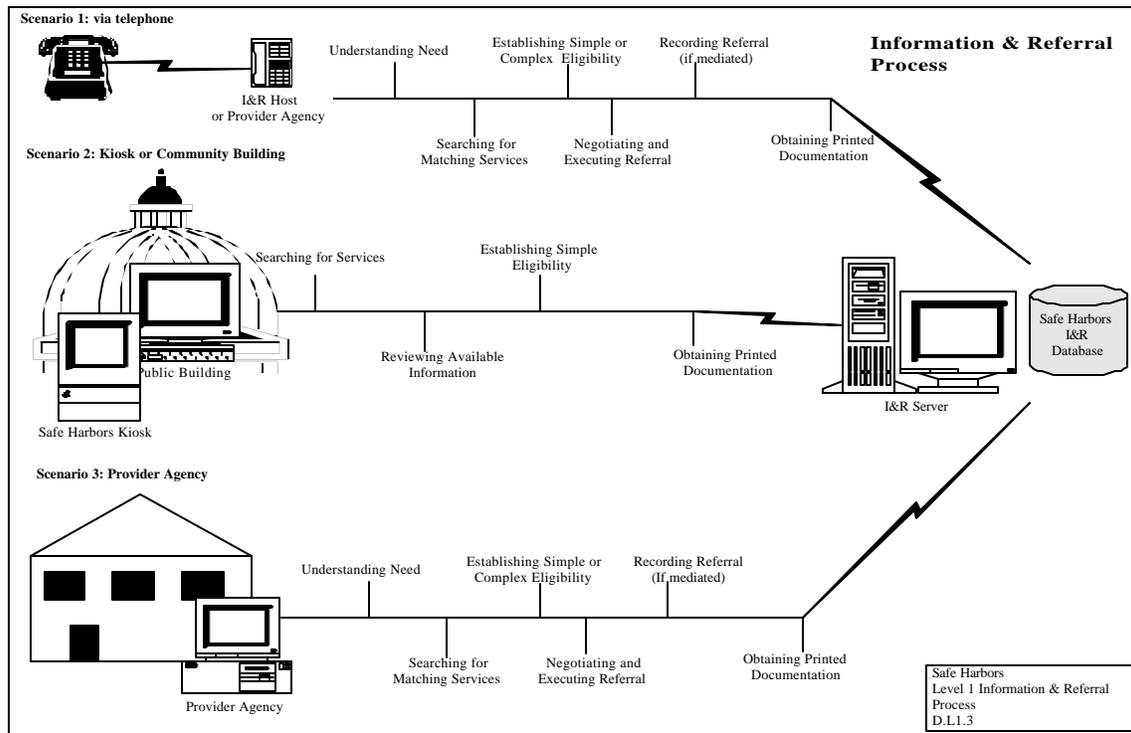
The eligibility component will offer the capability to print application forms.

**Referral.** The referral sub-component of the I&R system requires the existence of the Service Directory. Once the search for a service is completed, the system should be able to allow authorized personnel within the network of organizations participating in Safe Harbors to electronically reserve or secure services for a client, refer a client to another organization, or record each instance in which a client was able and unable to obtain the services to which s/he was referred. The referral sub-component of the I&R specification is critical in order to comply with the “outcome-based” clause of the Safe Harbors System charter.

It is important to note the distinction that we make between the Service Directory and the Referral sub-components. The Service Directory is a public Internet application available at any location where Internet access is present. It is a public electronic catalog with search capabilities. The Referral component allows authorized individuals to register a referral transaction. This component is the part of the Internet application that provides secure access to the system, so that authorized personnel can record the referral transaction on the system without registering client identifiers.

With this design it is possible to capture some outcomes from the I&R service without compromising any privacy protections and client confidentiality. The term “referral transaction” is used here to record the fact that an I&R service provision took place. The objective is to capture the types of programs or services

to which clients were referred, the originators of the referral and the recipients of the referral, with some kind of resulting annotation or disposition.



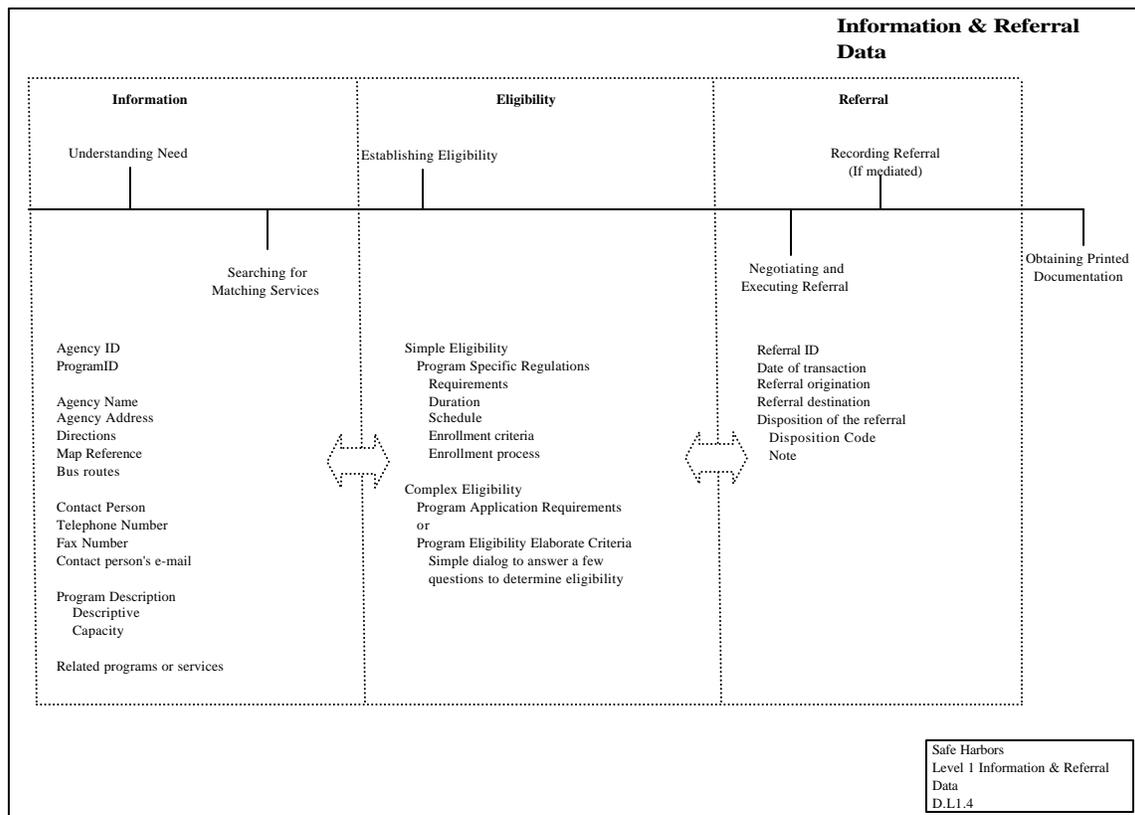
**Figure 4. I&R Processes**

**Processes.** Figure 4 shows the typical processes conducted under the I&R component. In the first scenario, a client may contact via telephone the I&R host organization or any Safe Harbors participant agency. Because the client is accessing the system through an intermediary, we call this type of session, a mediated session. The benefits of mediated I&R access are: a) assistance in the process of assessing complex eligibility; and b) the capability to record a referral by the case worker or counselor attending the call.

In the second scenario, access is obtained through a kiosk located in a community building. We use the term “kiosk” in a broad sense to refer to any communications station that provides access to the Information & Referral component of Safe Harbors and that is basically unattended by technical or support staff. One example is a personal computer with Internet access that is secure, properly enclosed and located at a strategic, accessible public location. Another example is the specifically designed “touch-screen station” where the user interacts with the system by pressing menu options on a computer screen. The differences are essentially in simplicity for the user and in cost. Our recommendations provide an idea of the costs involved in deploying both approaches. Here, the Information and Referral component will be located at

selected public sites. The design recommendation is for the creation of enough public access sites and the deployment of the I&R at selected public buildings (the recommended number of sites is discussed later in this document). In this scenario, the application is to be used by clients directly on a real-time basis. This scenario places major emphasis on the information component of the I&R system. In other words, it uses the service directory exclusively. We call this a "self query model". In this scenario, the client performs his or her own search for services at a location in which a communications station is available, such as a public building or a health clinic.

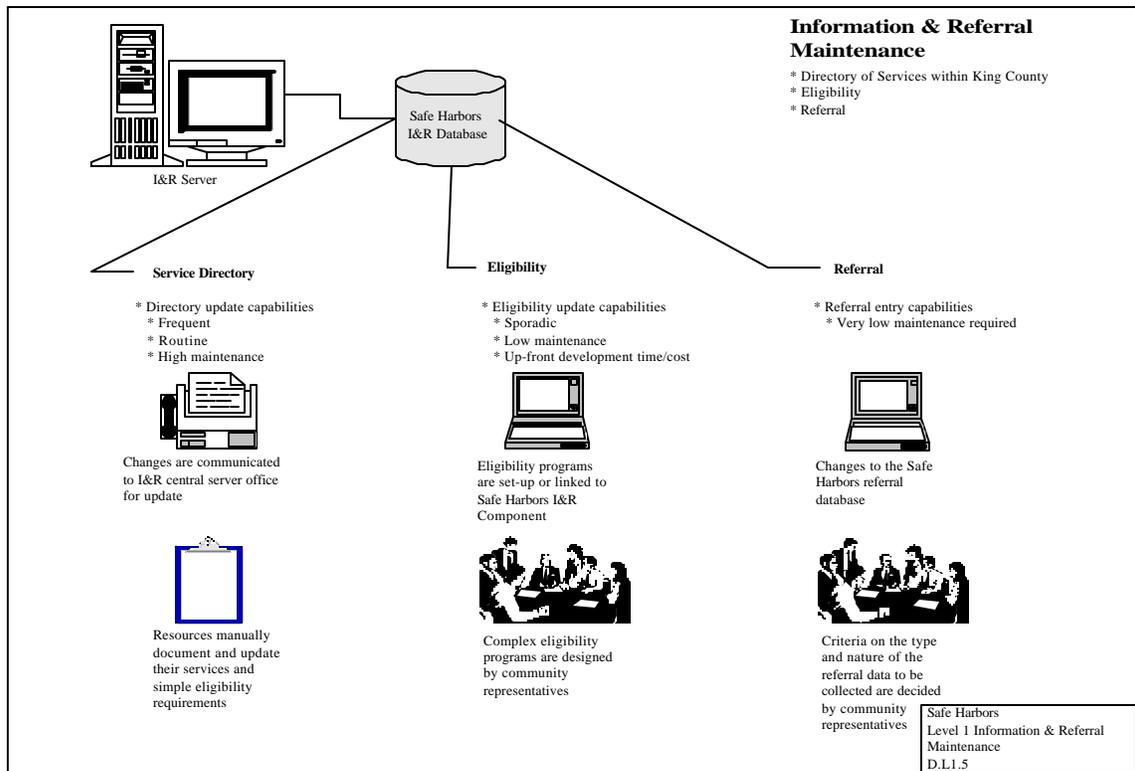
The third scenario is access to the I&R service at a service provider agency. Here the client will perform, with the assistance of agency staff, such tasks as complex eligibility assessment, placement of on-line referrals, and printing of required forms. The client may also access the system without mediation, for information search only. In this case referrals will not be recorded.



**Figure 5. I&R Data**

**Data.** The data to be maintained in the system is presented in Figure 5. This figure shows three categories of data that are consistent with the three sub-components. The two dashed arrows that cross over between categories were placed to represent the fact that in order to process eligibility, service data must be

available, and in order to process a referral, both service and eligibility data must be available.



**Figure 6. I&R Maintenance**

**Maintenance.** Sustained success of the I&R component can only be achieved through proper and continuous maintenance. Referral maintenance is the process of modifying the structure of the database to capture new criteria. Maintaining eligibility criteria will be performed in two ways: simple eligibility is an update process of the participating resource as described above. Complex eligibility requires community representatives to define specific programs to be incorporated into the I&R service. Figure 6 shows the necessary processes to achieve these maintenance functions.

**Role of the central I&R organization.** The central organization is an agency that already performs I&R activities. Their role as a central server involves the following tasks:

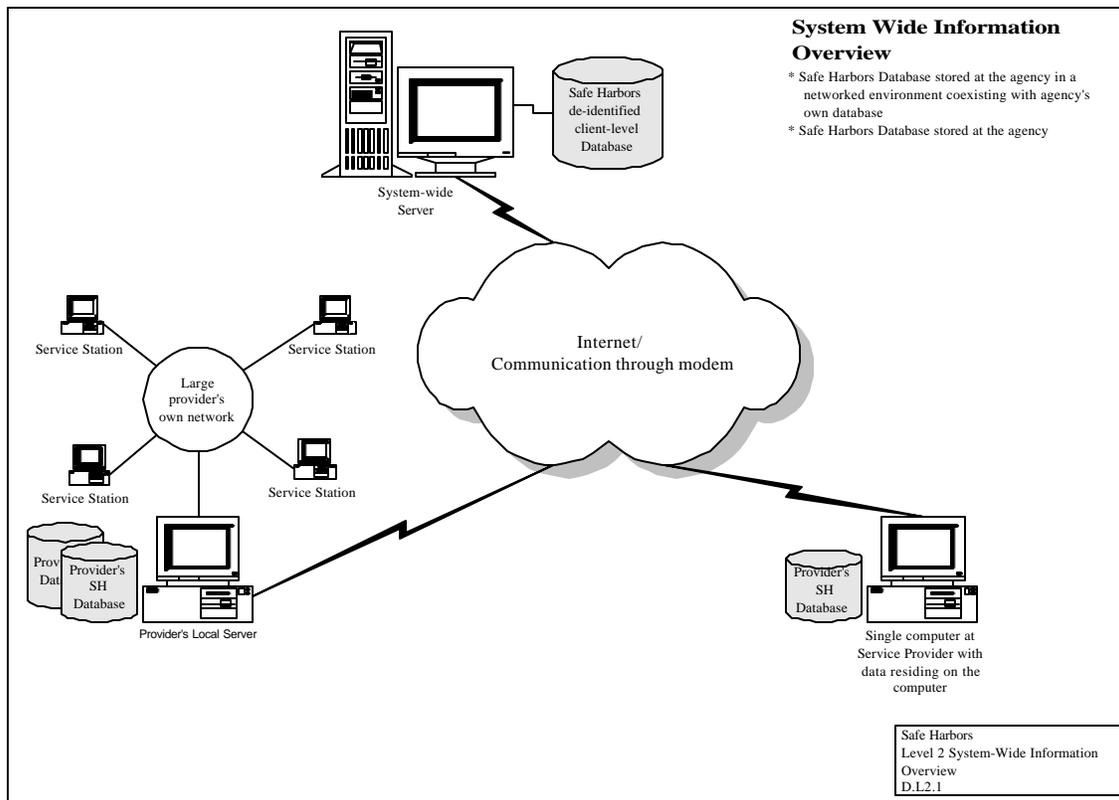
- Hosting, safeguarding, and maintaining the central information and referral database;
- Coordinating regularly with agencies on service and program updates;
- Performing standard technical tasks concerning data safeguard procedures such as regular backups and restores.

- Producing reports related to the number of referrals and dispositions.
- Provide training according to pre-established schedule to users on basics and Level 1 usage.

**Role of participating service resources.** Resources are any documented program, individual, group or agency who provides one or more services to consumers experiencing homelessness and whose entry is recorded and maintained in the Information and Referral components of the Safe Harbors system. Resource entities have the primary tasks of updating their descriptions, capacities, and eligibility rules or regulations. Updating does not mean modifying the database that resides at the central server. A mechanism should exist to allow resources to communicate their changes to the I&R organization who in turn will maintain the database.

## Level 2. System-Wide Information.

**Description.** The system-wide information component is the part of the system that will generate standardized data collected from agencies throughout the county. The data will be aggregated in a central location. Figure 7 shows an overview of this component. A system-wide database server will hold de-identified client level data for analysis and aggregation. This database contains data uploaded on a periodic basis by all agencies participating in Safe Harbors and collecting Level 2 data.



**Figure 7. System-Wide Information. Overview.**

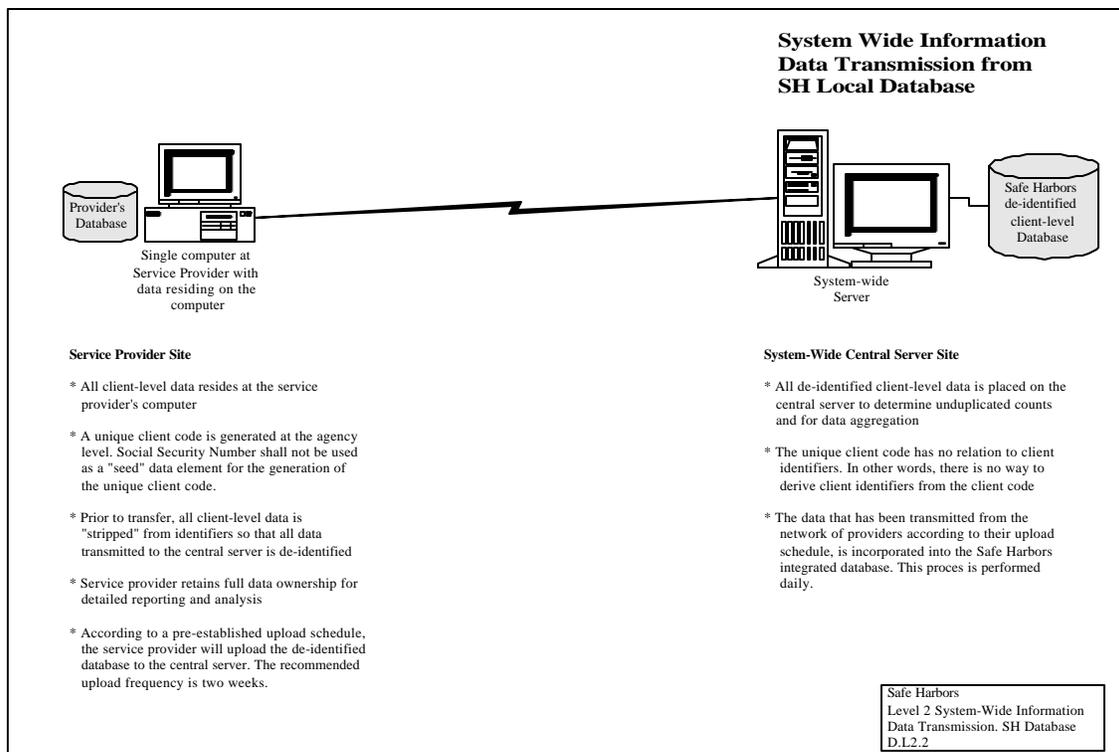
The system-wide application may or may not be an internet-based application. This decision is contingent upon the software package that the community decides to adopt. The Level 2 design takes into consideration various possibilities to accommodate both the limitations of small agencies and the opportunities expected by larger, more technically sophisticated organizations. On the right hand side of Figure 7, a single agency is shown incorporating Safe Harbors into its operation. The Safe Harbors database becomes the agency's electronic client data management system.

On the left hand side, Figure 7 shows an example of an organization that already has its own data management system but participates in Safe Harbors. The client

data resides on the organization's existing database and is periodically imported into a Safe Harbors format for uploading. Obviously, an agency who has an existing data system and wishes to convert to Safe Harbors will be able to do so.

**Services.** The Level 2 system-wide data component will provide valuable standardized county-wide data for a non-duplicated number of people accessing the homeless service system as well as many who do not enter the service system. The data might include: number of people requesting and receiving homeless services, age, race, family members present, place of birth, last place stayed, income sources, services requested, and services received. The data elements to be collected depend upon the work of the Data Elements sub-committee of the Working Group. We recommend that these data elements be reviewed in order to balance the interests of: *consumers* (making their needs known, enough information to address the full complexity of their situations, not collecting too much information to be burdensome and unnecessarily intrusive); *agency staff* (data needed to provide service effectively, making the amount of data manageable, providing data to report to funders); and *city/county policy makers* (targeted data to effectively answer policy questions); and *funders* (meeting funding requirements).

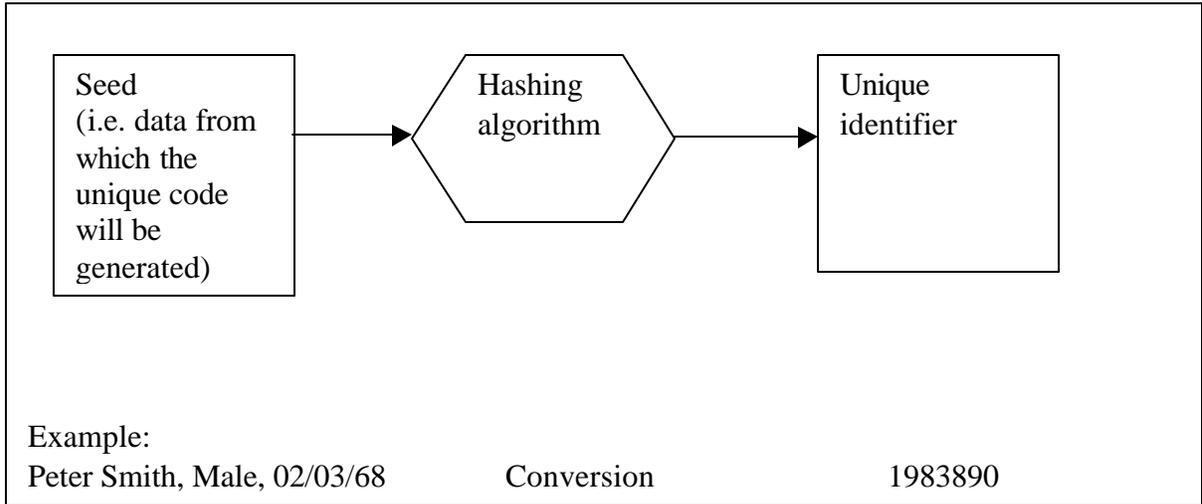
**Model and data uploading from a Safe Harbors only database.** The model shown in Figure 8 describes the process of client de-identification and data transmission from a Safe Harbors data site.



**Figure 8. Data Transmission from a Safe Harbors only database**

An agency will retain full ownership of its own clients' data because all client-level data resides at the service provider's computer.

A unique client code is generated at the agency level. This unique code is obtained at the agency's computer by a technique called hashing. The process is described and exemplified in Figure 9.



**Figure 9. Hashing unique identifier on name, sex and date of birth.**

Social Security Number shall not be used as a seed data element for the generation of the client code. The reason for this is that some agencies do not collect social security number in their current system.

Prior to transfer, all client level data is “stripped” from identifiers so that all data that is transmitted to the central server is de-identified. The stripping process will apply to all those data elements that are considered possible client identifiers. Therefore, the stripping process does not only apply to the seed data elements.

Data uploading will occur on a periodic basis. We recommend a two week frequency period for each agency. According to a pre-specified upload schedule, the service provider will upload the de-identified data to the central server. The existence of a pre-specified schedule is necessary to ensure an even distribution of upload time. Overall, there will be daily uploads within the network.

The direction of the arrows shown in figure 9 is important. It means that the unique client code has no relation to client identifiers. In other words, there is no way to derive client identifiers from the client code.

At the central server site all de-identified client-level data is used to compute unduplicated counts and to form part of the aggregated pool of data for overall

analysis. This means that the data transmitted from the network of providers according to their upload schedule is incorporated into the Safe Harbors system-wide integrated database. In this model there is no possibility to derive identifying data at the central server. This process is performed daily at the central site.

The organization that collects and aggregates this Level 2 data must have the technical resources to do the following:

- Provide “air-tight” storage and protection of the Safe Harbors database.
- Administer the database including on-site and off-site back up.
- Provide technical assistance (troubleshooting) to agencies regarding use of the chosen software and data transmission requirements (transmission may not be an issue if the system is real time).
- Generate aggregate, de-identified reports on the data based on Safe Harbors access to data policies .
- Prompt agencies to submit latest data.
- Post regular aggregate, de-identified reports on the web.
- Provide training according to pre-established schedule on basics and Level 2 usage.

The core system features will include the following:

- Comprehensive centralized database
- Capability to maintain historical client-level de-identified records
- Secure data transfer
- Data elements that balance needs of clients, service providers, policy makers, and funders as much as possible.
- Capability to generate a range of reports for stakeholders
- Allow individual agencies to collect their own additional information beyond the core countywide data
- Allow individual agencies to easily generate reports on their own data

### **Model and data uploading from a service provider’s own database.**

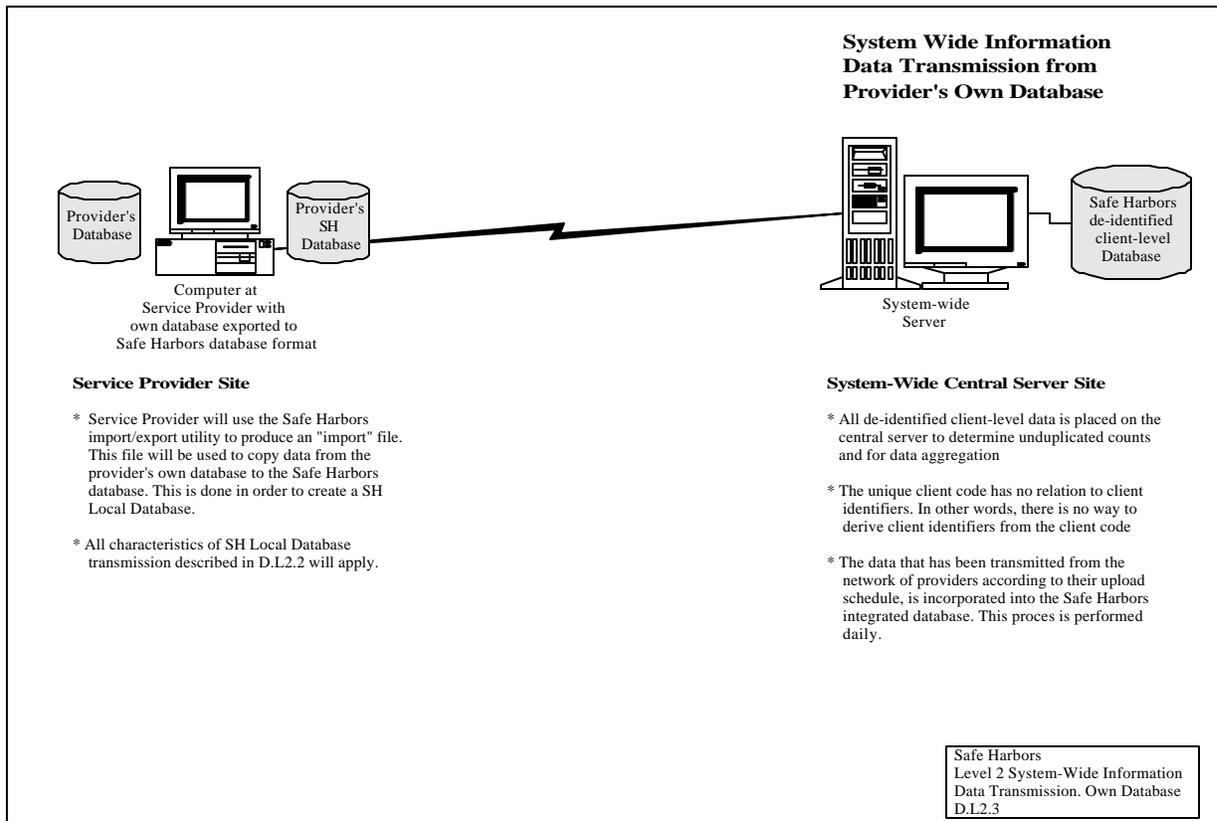
Organizations who already have an existing client data management system and who participate in Safe Harbors will be able to:

- a) Convert their existing database to Safe Harbors to use Safe Harbors as their client management system.
- b) Export their data into a local Safe Harbors database for data transmission.

Figure 10 shows the process to follow when an organization exports the current database into Safe Harbors for data transmission.

The service provider will use the Safe Harbors import/export utility to produce an “import” file into Safe Harbors. This file will be used to copy data from the provider’s own database to the Safe Harbors database residing at the same site. This is done in order to create a Safe Harbors local database. This local database

is necessary for compatibility reasons. The requirement posed on these agencies is the need to create their own “export” utility into a standard format that the Safe Harbors import/export utility can understand. Then all the steps and characteristics involved in the transmission of a Local Safe Harbors data file to the central server apply. This process is described in the previous section.



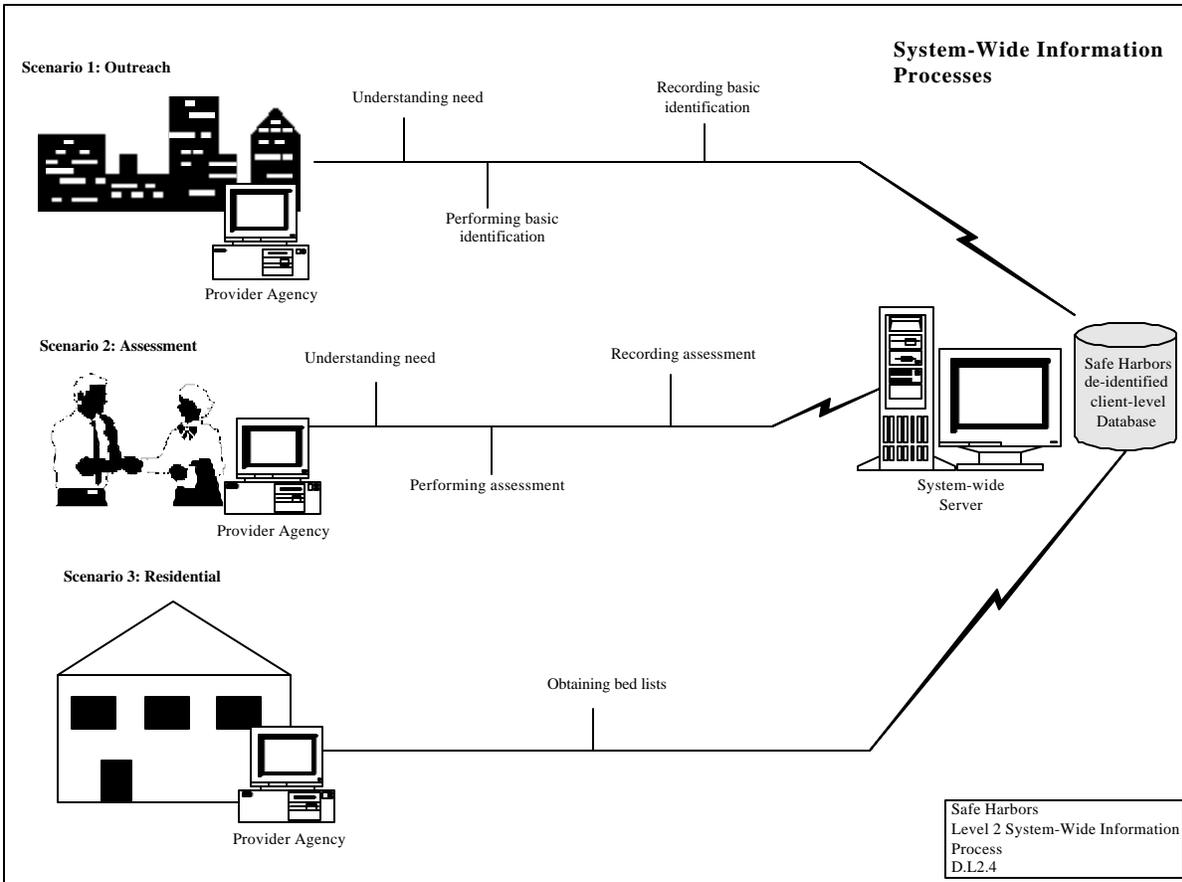
**Figure 10. Data transmission from a service provider’s own database**

**Processes.** The system-wide information level supports three fundamental processes. These are represented in Figure 11 and are:

- Outreach
- Assessment
- Basic residential

Outreach and assessment are very similar. These processes are concerned with basic identification of client needs, their assessment or obtaining basic client identification and recording these information on the Safe Harbors system. Support for this aspect applies to both, individuals and families.

The third scenario, residential, allows use of the system to obtain bed lists on a daily basis. See Figure 11 for the full range of data transmission alternatives.



**Figure 11. System-Wide Information Processes.**

**Core Data Elements.** Critical to the success of the system-wide Safe Harbors implementation is the standardized collection of information regarding the characteristics, life circumstances, previous living situations, and service needs of men, women and children who are homeless or near homeless. At this point in time, participants in the design planning process have not completed the task of determining which core data elements all service programs participating in Safe Harbors will be asked to collect from the persons they serve.

Figure 12 shows the data elements at this system level agreed upon by the Safe Harbors work group to date. The figure shows what data elements are collected at the agency and which of them will be “stripped” prior to data transfer to the central server.

Current Homeless Management Information Systems offer data collection capabilities beyond the standards set by the Safe Harbors Working Group. Agencies looking at ways in which Safe Harbors software can allow them to capture data elements above and beyond what is currently offered by the Safe Harbors standard, will find an array of possibilities and features that will be for them to chose to use or ignore.

We strongly recommend that Advisory and Work Group members consider two groups of key questions as they finalize their thinking on this issue. They are:

What are the most critical public policy questions you intend to address with the data generated through Safe Harbors? What specific information will need to be collected over time from homeless and near homeless persons to answer these questions?

What common set of data elements are required by the diverse range of funders of homeless assistance services? How might the Safe Harbors system allow service programs to meet these reporting requirements most efficiently? How can funders adapt their reporting requirements to match each other and streamline collection and reporting?

System-Wide Information Data					
Individual			Family or Group		
Understanding Need	Performing basic individual identification/assessment and recording		Performing Family/Group Assessment and recording		
	Collected at Agency	Shared		Collected at Agency	Shared
Name	Yes	No	Family Composition	Yes	Yes
Client Code (Hashed)	Yes	Yes	# of persons requesting services	Yes	Yes
Social Security #	Yes	No	For each Family Member		
Date of Birth	Yes	No	Race	Yes	Yes
Gender	Yes	Yes	Date of Birth	Yes	No
Race	Yes	Yes	Disability	Yes	Yes
Ethnicity	Yes	Yes	Last Address Considered Home		
Country of Birth	No	No	Street Address	No	No
Country of Birth	No	No	City	Yes	Yes
Primary disability	Yes	Yes	State	Yes	Yes
Last place stayed 1	Yes	Yes	Zip Code	Yes	Yes
Reasons Left (1-4)	Yes	Yes	Income		
Last place stayed 2	Yes	Yes	Type of Income	Yes	Yes
Reasons left (1-4)	Yes	Yes	Amount of Income	Yes	Yes
Last place stayed 3	Yes	Yes			
Reasons left (1-4)	Yes	Yes			
Veteran status	Yes	Yes			
Primary Language	Yes	Yes			
Age*	Yes	Yes			
Date of entry*	Yes	Yes			
# of people requesting services	Yes	Yes			
Refugee/Immigrant status*	Yes	Yes			
Reasons for Homelessness*	Yes	?			

Safe Harbors  
 Level 2 System-Wide Information  
 Data  
 D.L2.5

Figure 12. System-wide Data Elements Recommended as of September, 2000.

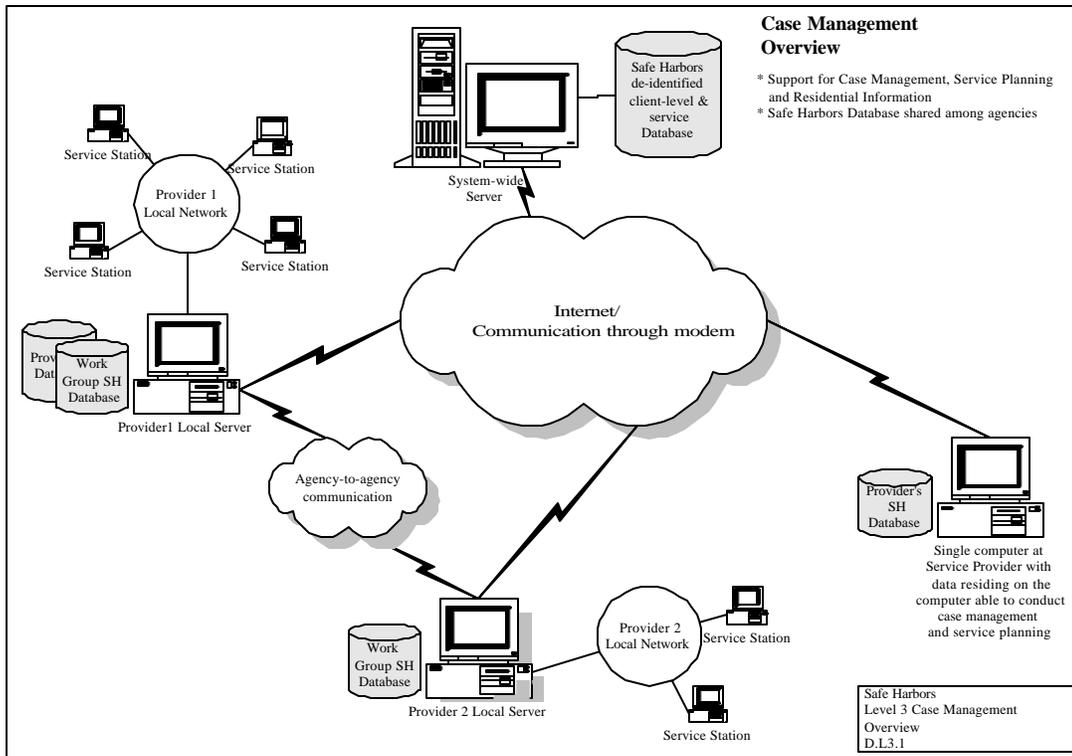
We further recommend that Safe Harbors be involved with the work of the Outcome Alignment Team. This is an effort by the City of Seattle, King County and United Way to coordinate the contractual results of agencies that are mutually funded. One of the goals is to ease the burden of reporting for the agencies by aligning the data elements.

### **Level 3. Case Management / Sharing.**

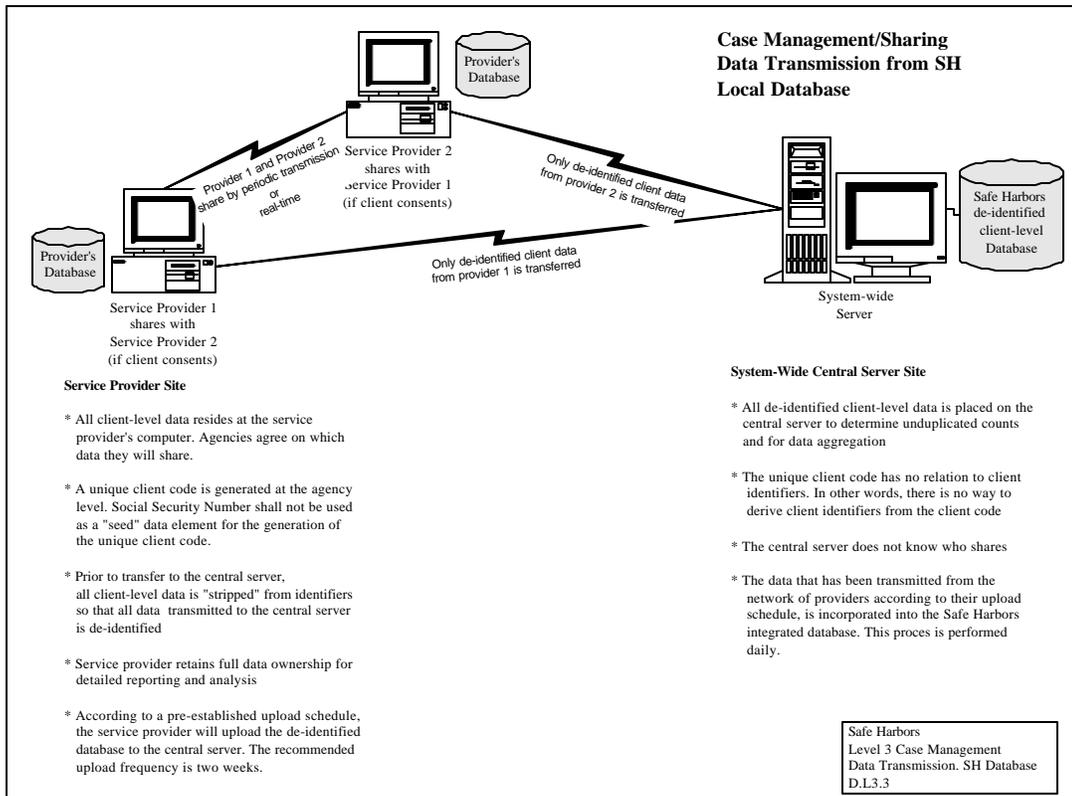
**Description.** The case management component is the part of a computerized system that would provide individuals, families and their case managers with a tool for enhancing assessment of needs, providing clients with direct access to resources, and eliminating duplicative assessments.

**Services.** A distinction should be made in the Level 3 component between Case Management and Sharing. Level 3 (Case Management) allows for a more comprehensive set of tools to better plan and support the provision of services. Level 3 (Sharing) enables agencies serving the same clients to electronically share (with written client consent) relevant portions of client records as a means of eliminating duplicative assessment processes and streamlining service provision.

Figure 13 presents an overview of the Level 3 Case Management / Sharing component. The uploading process of Safe Harbors data to the central server is the same as Level 2 (System-Wide Information) and is described earlier in this report. However, data sharing among providers who agree to do so, is particular to Level 3 (Sharing). In this scenario, as shown in Figure 13 by way of example, Providers 1 and 2 agree to share certain client data according to agreed upon client consent policies. These two agencies, on a periodic basis (frequency decided by the participant agencies) perform a function to copy one's database and append it to the other's database and vice versa. This communication can even be performed in real-time. By "real-time" is meant that there is a direct, uninterrupted communication between agencies. This agency-to-agency communication process is independent from any communication with the central server. In this way client identifiers do not go through the central server. The data transmission details in this model are shown in Figure 14.



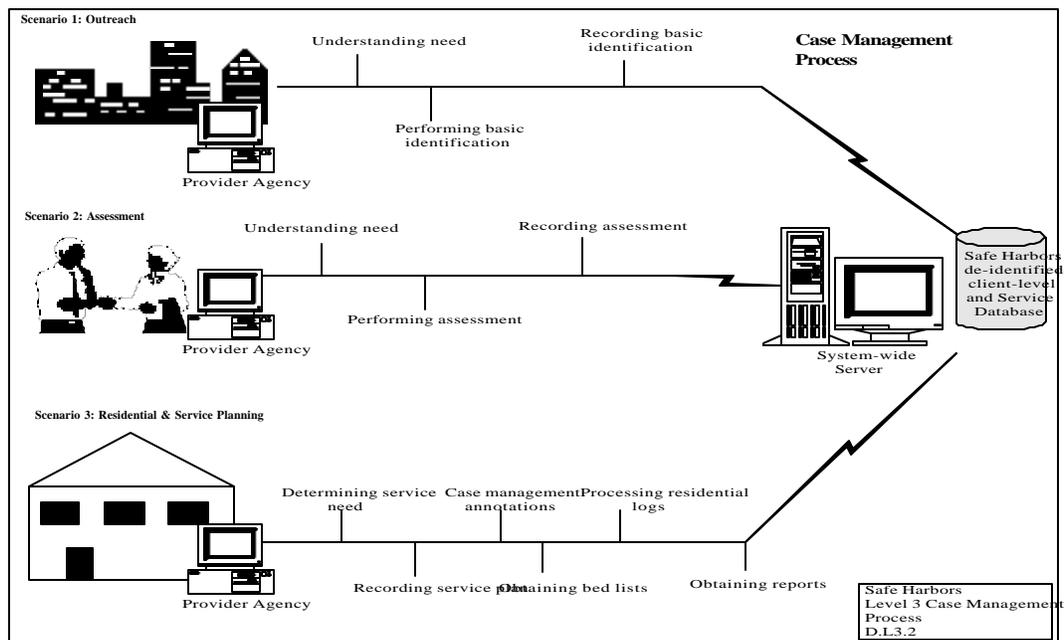
**Figure 13. Case Management / Sharing**



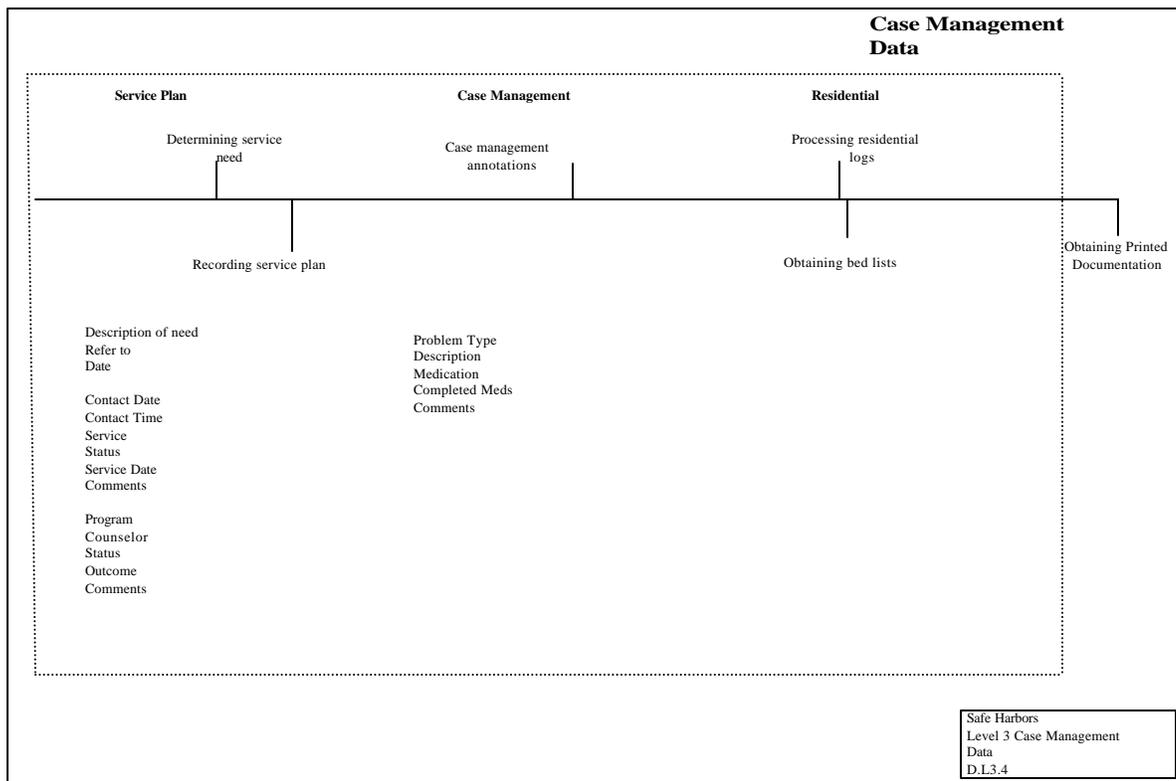
**Figure 14. Data transmission with data sharing.**

Level 3 (Case Management) offers enhanced features to enable service provider staff to use the system in ways that go beyond the Safe Harbors bottom line requirements. These are examples of additional standard features offered by most currently available Homeless Management Information Systems. Figure 15 gives an idea of what these features are, and Figure 16 shows respective data elements.

- Service planning
- Client-based referrals (as opposed to anonymous I&R referral transactions)
- Case management annotations
- Follow-ups



**Figure 15. Case Management Processes.**



**Figure 16. Case Management Data Elements.**

**Guidelines for Implementation of a Level 3 System.** As mentioned earlier, we are not making recommendations that a Level 3 component be part of the Safe Harbors implementation, even though this capability will be technically available to those programs who participate in Safe Harbors. However, some organizations in Seattle/King County are already operating such networks; other organizations have expressed an interest in utilizing this feature to improve the coordination of services and reduce duplicative assessments for the people they serve. For this reason, we recommend that the project’s Steering Committee develop guidelines for programs participating in Safe Harbors who voluntarily choose to utilize this case management and electronic data sharing capability. Specifically, these programs will need formal guidance on information security, client consent, and interagency agreement standards that they will be expected to meet as Safe Harbors sites.

## 5. Technical Assessment

A mailed survey was administered to obtain an indication of the technical capabilities found within the network of service providers in King County. A total of 175 surveys were mailed to organizations whose addresses were obtained from

mailing lists provided to us by City of Seattle staff and staff from Northwest Resource Associates. A total of 112 surveys were completed and returned; representing an impressive 64% response rate.

We conducted an analysis of each of the surveys for duplication, fitness and grouping. This analysis resulted in 95 valid surveys from 77 different organizations.

**Infrastructure.** We estimate that a total of 1020 personal computers exist within the network of service providers who responded to the survey. Extrapolating to an estimated total of 103 organizations, the projected total number of computers is 1364.

From the survey we conclude that 51% of the equipment is 1 to 3 years old; 39% is 3 to 5 years old; 5% of the installed computer base is older than 5 years; and 5% is undetermined.

In an effort to understand how widely computer telecommunications is spread within the network of providers we found the following: 89% of organizations use electronic mail, 79% use Internet access for information directly related to the job; 61% have local computer networking within their organization; and 33% establish electronic communication across several sites.

With respect to an organization's practice in uploading/downloading data or grant applications or other materials to and from government agencies, 53% of organizations do so while 47% do not.

**Technical Specialization.** With respect to overall technical specialization, 28% of organizations reported being computer users for 1 or 2 years; 39% have used computers for 3 to 5 years; 21% for 5 to 10 years; and 12% for more than ten years.

A relatively low number of individuals within these organizations operate computers as part of their jobs: 2% of all organizations have no individuals operating computers as part of their job; 37% report 1 to 4 individuals; 19% reports 5 to 10 individuals; 14% report 11 to 20 individuals; and 28% of all organizations report that more than 20 individuals operate computers as part of their jobs.

Nearly all organizations (92%) indicate that between 1 to 20% of their staff can be considered computer "experts." Therefore, computer training needs are relatively high in some organizations. Thirty-eight percent of all organizations indicate that between 1 to 20% of their staff need computer or basic systems training; 25% of organizations indicated 21 to 40% of staff require training; 16% indicated that between 41 to 60% of their staff need training; 11% reported that between 61 to

80% of their staff require it; and 10% indicated that between 81 to 100% of their staff need computer or basic systems training.

### Equipment Requirements for Safe Harbors.

The estimated total number and type of sites is as follows:

	<b>Organizations</b>	<b>Sites</b>
<b>Level 1 only sites.</b>		
Organizations providing Information and Referral service only	20	24
Public Stations/Community buildings		30
<b>Level 2/3 sites</b>		
Shelter, transitional and permanent housing organizations	72	217
Services only organizations	11	12
<b>Total</b>	<b>103</b>	<b>283</b>

The number 103 shown above represents the estimated total number of organizations that provide homeless services in King County. The number 283 represents the estimated total of different locations where homeless services are provided. Note that the 283 total include 30 kiosks/public buildings.

In order to determine the equipment requirement for Safe Harbors we first applied the following rule of thumb: “one site, one computer” to Level 1 and Service only sites, giving us a total of 66 computers.

For the remaining 271 sites, we applied the following second rule of thumb based on numbers of clients served per month:

<b># of clients</b>	<b>Computer requirements</b>	<b>% of organizations</b>	<b>Total # of computers</b>
1 – 20	1	10	22
21 – 50	1	20	44
51 – 100	1	8	17
100 – 500	2	32	139
> 500	3	30	195

We then added the suggested number of computers for a total of **483**.

Another requirement is the specific allocation of two enterprise computer servers. One to support the Level 1I&R function and another to support the Level 2 System-wide function. For a discussion of the options to implement and maintain the two servers see the section “Preparation Work” in Chapter 7, Implementation Framework.

## 6. Coordination Structure

Successful implementation of Safe Harbors is dependent upon having both a solid management and staffing structure, as well as a structure for ensuring that community service, consumer, funding and policy stakeholders provide the project with ongoing policy direction. This initiative is fundamentally a collaborative effort among the City of Seattle, King County and the United Way of King County. Therefore, we recommend that these sponsors develop formal memoranda of agreement that spell out the roles, responsibilities and areas in which each sponsor has sole decision making authority, as well as those areas in which decision making authority is shared among the partners. This will be particularly important given the intent of the sponsors to house the Project Manager within the City of Seattle's Department of Human Services. Other specific structural components that we recommend be built into the Safe Harbor structure from the start-up phase through full implementation follow.

**Safe Harbors Steering Committee.** We recommend establishment of a Steering Committee at the inception of the project whose responsibilities include: review of policies and major implementation processes; review and authorization of data releases; and review of the project's strategic direction. Committee members will also be critical in providing project management and staff with assistance and support when expected and unexpected implementation hurdles arise. Representation on the committee needs to be broad-based and attentive to: the geographic makeup of King County; sub-populations served by homeless service and mainstream agencies; consumer, advocacy, service provider and program management perspectives; the range of local, state, federal, and private funding and public policy organizations; private sector stakeholders; and technical expertise.

**I & R Organization.** An organizational entity needs to be responsible for implementing and maintaining the Level 1- Information and Referral portion of Safe Harbors. We recommend that resources for Safe Harbors be used to expand and consolidate the capacities of an existing I & R organization in the county. The Crisis Clinic has been suggested by many participants in the planning process as a viable trusted and respected candidate for this role. Any organization undertaking the implementation of the I&R component of Safe Harbors will shoulder the primary responsibility for maintaining a real-time Information and Referral database, providing I & R services to consumers and to service providers, and generating periodic and ad hoc aggregate reports on trends in referral transactions over time.

The Crisis Clinic currently operates a web-based I & R application. We recommend the community to consider the following alternatives: a) to expand the capacity and enhance the technology base of the current application, b) to assess the features and capabilities of I&R systems available in the marketplace.

Three of the software products that we suggest as possible candidates for King County are or include Information & Referral systems.

**System-Wide Organization.** The same or another organizational entity needs to be responsible for implementing the Level 2-System-wide portion of Safe Harbors. This organization's primary responsibilities fall into two distinct areas. On the technical side of operations, staff in this organization will be in charge of setting up and maintaining the technical infrastructure of the Central Server that will receive de-identified client level data from participating programs. Additionally, these staff will work with agency heads and program staff to ensure that they are equipped with the knowledge, the software and the hardware to effectively implement the data collection, data entry, and data transmission tasks associated with participation in Safe Harbors. On the data analysis side of operations, staff in this organization will also be in charge of periodically calculating coverage rates, ensuring data reliability, carrying out sophisticated data analyses, and producing data releases for the participating community.

**Safe Harbors Project Manager.** A Project Manager is essential for the successful implementation of the project. This person will have primary responsibility for leadership and oversight of all project operations, including liaison work with the Steering Committee, funders, and community participants.

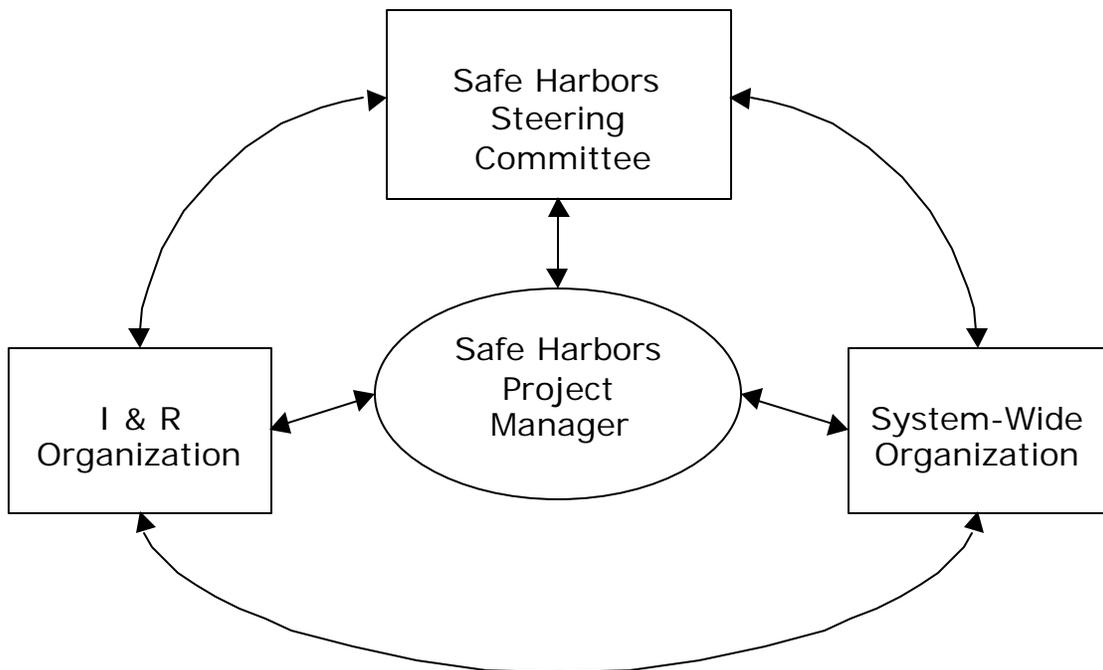


Figure 17. Coordination Structure

## 7. Implementation Framework

This section of the report describes the proposed implementation framework for Safe Harbors. It is written as a step-by-step guide to complete a three-year gradual, phase-in implementation of Levels 1 and 2. The Implementation framework also provides directions to pilot Level 3. Some guidelines are necessarily general given the amount of preparation work that still needs to be completed before actual implementation.

The implementation framework consists of four major pieces:

- *Preparation work.* The necessary activities that need to be completed in order to begin implementation by the community. In this section of the report we expand and comment on the Safe Harbors Staff Team's "Implementation Steps" presented to the Safe Harbors Advisory Committee on November 17, 2000.
- *Overall implementation phases.* As a whole, the community's necessary steps to achieve a considerable amount of coverage to: serve the consumer, be useful to provider agencies, be useful to advocacy groups and policy makers.
- *Site implementation methodology.* The necessary activities to install and make the Safe Harbors System substantially operational at a specific site.
- *Implementation control methodology.* The mechanisms to monitor and control the implementation process.

The following sections describe the details of the implementation framework. Each section presents the specific steps and major actions that need to be completed in order to move forward through the methodology.

### Proposed Implementation Framework

The objective of the implementation framework is to provide a concrete strategy to identify detailed steps for the overall system implementation as well as the steps needed to bring individual sites up on the system.

**Preparation Work.** Preparation work involves a series of actions that need to be taken prior to the execution of the implementation steps. The Safe Harbors Staff Team has made significant recommendations for this part of the implementation. We concur with their proposal and provide the following comments and additional recommendations:

- **Organization** (The necessary communication, coordination and technical structure to sustain the implementation effort)

Server Organization (A key player in the project). The server organization is critical to a successful implementation of Safe Harbors. This should take first

priority. In our opinion this issue should have similar urgent priority as that of identifying and hiring a Project Manager. There are two reasons for this:

a) The server organization must have a "say" on whom the Safe Harbors Project Manager will be. The Project Manager will inevitably spend most of his or her time working hand-in-hand with management and staff at the server organization. Most of the detailed implementation tasks center on activities initiated and managed by the server organization. For example, advising on, executing and managing software installations in an estimated number of 40 to 80 sites per year, user training, troubleshooting, support, and follow-up to the next level of implementation. These central activities are at the core of the technical aspects of the project and inevitably fall under the jurisdiction of the server organization. This makes the server organization a key player in the project. We do not recommend that the server organization be selected on its capacity to simply house and protect the database.

b) Waiting for a Project Manager to incorporate server organization recommendations in a decision package may delay the process. In order to conduct the software selection process, we strongly recommend that the server organization be a central participant with voting power. Consider this: selecting a server organization is not selecting a hardware platform. It involves making a choice of a structure with a set of skills and expertise that go beyond those needed to support a complex networked application. It is a structure that should be capable of conducting good customer service and training. If the Safe Harbors Project Manager is charged with preparing a decision package that includes both server organization and software selection, we have then excluded the server organization with all its above mentioned skill set from any significant "say" as to the software selection process. Inevitably this would cause delay. This is because by the time the Implementation Steering Committee is asked to review a decision package (June, 2001), the server organization will not have a clear strategy of how to proceed with actual implementation details. So the question has to be asked: who will put forward the implementation details? The Project Manager? If the Project Manager will be addressing these technical matters, who then will address the broader issues concerning voluntary site recruitment, site agreements, Safe Harbor Policies, guidelines and procedures?

Single or multiple server organizations. Our design recommendations clearly draw distinctions between Level 1 and Level 2/3 server roles. While the former is focused on maintenance of a massive service directory and on coordination with service providers of the update function, the latter is more concerned with technical support and with analytical work and reporting. We strongly

recommend that the dual roles are recognized and appropriate resources are allocated to each one of them.

Furthermore, we would like to express the potential benefits of identifying a single server organization that satisfies the dual server roles. On the software side, there are packages such as ServicePoint or ClientTrack that are integrated, thus providing all levels of functionality (Levels 1, 2 and 3). With a single server organization, packages such as the two mentioned above become extremely attractive.

On the cost side, there are benefits that accrue from having a single server organization. Operational costs of server maintenance, including day-to-day operations, backup technologies and operation, and security can be appropriately shared.

On the technical side, there are synergies that benefit the entire network of service providers. For example: centralized, comprehensive technical support; internal technical assistance across both server roles; increased possibilities for growth and for having common standards and platforms.

We strongly recommend that the process to identify the server organization be executed immediately. We further recommend that this process be based on assessment of the potential organization's standing and capabilities in the following areas:

- Experience with confidentiality/privacy issues in the manipulation and storage of sensitive data
- Current role in and standing with the community of service providers
- Experience in the technical handling of networked data management systems
- Experience in the deployment, training and support of computer applications
- Training experience on the use of interaction protocols with consumers

We recommend that potential server organizations be asked to make their case along the above-mentioned parameters.

Project Manager. The Safe Harbors Staff Team agreed with our recommendation to move forward with the creation of a full-time position. In their November 17, 2000 document they state: "The staff team recommends that the position be created as soon as possible so that a full-time individual – with strong project management skills – is leading the start-up phase of the Safe Harbors system." The staff team's document further elaborates on major duties for the position.

We provide two comments regarding this important appointment:

a) Strong Project Management vs. Strong Policy Roles. As stated in the above section, the server organization will inevitably play a project management role, especially on the technical, training and support aspects of the implementation effort. The server organization must have adequate infrastructure or should be provided with the resources to develop these technical project management capabilities. We view the Safe Harbors Project Manager as someone who a) oversees the technical project management, which is executed by the server organization, and b) provides leadership through the difficult steps of recruiting service provider agencies into Safe Harbors.

b) Housing. We are concerned that a physical and organizational split between the Safe Harbors Project Manager and server organization may lead to inefficiencies and fragmentation in the implementation process. Furthermore, having the project administration designated as a government position may compromise the independence needed to assume community stakeholders' positions. For these reasons we recommend that Safe Harbors Sponsors consider the location of Safe Harbors Project Administration at or nearby the central server organization's location.

- Decisions (The necessary decisions to put the implementation effort underway)

We recommend that in addition to the decisions already outlined by the Safe Harbors staff team, the following issues also be considered in the analysis.

Deployment plan. Although Safe Harbors is voluntary, it is the responsibility of the Safe Harbors Project Manager to formulate a deployment plan and a corresponding strategy. Our assumptions and cost estimates are based on an 80% site coverage at the end of year 3 for Level 2. Level 1 is assumed to be implemented at 100% participation by relevant service programs. With these assumptions we anticipate the Project Manager's efforts to recruit 40 sites in year one, 80 sites in year two and 80 sites in year three for a total of 200, approximately 80% of a total of 253 sites.

A note on coverage. The figure of 80% coverage refers to site participation and not to population coverage. In our experience, an 80% level of site participation is adequate enough to achieve population coverage worthy of analysis and dissemination. However, site participation by itself is an inadequate measure of progress with implementation. That is, simply having the software installed in a service site doesn't guarantee that the program has actually integrated use of the data system into its day-to-day operation and reporting procedures. Therefore, the community must determine the appropriate site participation level to achieve satisfactory *population coverage* based on the level of actual site participation. In our Massachusetts experience, reaching 60% population coverage has been the minimum threshold for analysis and release of aggregate data. In the case of

Massachusetts, these population thresholds have been surpassed when site coverage has reached an 80% level.

Data elements. The work carried out by the Working Group and the Advisory Group produced a list of data elements to be included in Safe Harbors. We strongly recommend that they be reviewed and possibly augmented. We suggest that this process be undertaken immediately following the review of the potential software programs to implement Safe Harbors.

Client consent and information security protocols. Client consent and information security protocols should be developed prior to implementation start-up. Client protocols fall in two categories: consent and data collection. Consent protocols refer to the process for obtaining, recording and maintaining client consent for data usage and storage in electronic media. Data collection protocols refer to the processes for obtaining, recording, maintaining and protecting client data in electronic media.

Articulation agreements with agencies. Articulation agreements with agencies describe in detail the responsibilities of both, the central server organization and the service provider in a variety of issues including requirements, training, support, and data transport issues. It also provides the medium to enforce standards and compliance with regards to technical and operational issues.

Articulation of privacy safeguards and penalties for privacy violations. Prior to implementation, written policies need to be in place that summarize the legal and ethical standards and procedures that will guide all participants in use of the Safe Harbors system. Legal standards represent a minimum privacy protection standard. However, the community involved in the design of Safe Harbors clearly indicated its desire for Safe Harbors to operate at a higher ethical standard. For this reason, the policy document on information security for Safe Harbors should strongly articulate the privacy protection standard agreed upon by the community, including how the data can and cannot be used; which specific procedures will need to be followed by Central Server and service program staff to ensure that the privacy protections are honored; and what enforceable penalties will ensue if privacy rights have been violated.

Any agency participating in Safe Harbors should be required to sign a written agreement to follow these policies/procedures and should forward to the Central Server copies of commitment forms that staff must sign reflecting agreement with the procedures. In addition, all staff should be required to participate in a structured training session on privacy protection policies and procedures prior to gaining access or user rights with the Safe Harbor system. We recommend that consumers be hired by the Project team to conduct these trainings. We also recommend that a sub-committee of the Steering Committee be established to review the information security

policies/procedures and to ensure ongoing monitoring of the integrity of the system with respect to this issue.

- Resource acquisition (The necessary resources to execute the implementation)

The following resources need to be in place prior to implementation start-up.

Software. Software selection can be a very long and time-consuming process. Furthermore, the decision to select a package generates a great number of issues that consume many, many hours. We recommend that the Project Manager and Technology Manager take a lead in structuring review and decision making processes in which Steering Committee members and other stakeholders have an opportunity to learn about the available software products and register their preferences. The Safe Harbors Project team may then be in a position to present clear recommendations to the Steering Committee so that the negotiations with a product vendor can proceed.

We must stress the fact that the outcome of the software selection process generates enormous amounts of preparatory work, especially if the software is customized. In the case of Safe Harbors, there is a high possibility that some level of customization will be necessary on at least two fronts:

- a) The need to address the specific requirements of Level 2, Model 2 hashing, described earlier in this report. We strongly recommend that an assessment be made on how the potential software tools address data security, particularly encryption and hashing. Their solution may prove satisfactory at considerable time and cost savings.
- b) The developments of import/export utilities to support data linkage with those installations that already have an automated system. We recommend that a data-linkage work group be formed to prepare a standard format that all agencies can use and that is according to the Safe Harbors Level 2 data element specifications. This work group should be formed by agencies who have their own system and that will be uploading data to Safe Harbors.

For a full in-depth review of criteria to aid in the software selection process for Homeless Management Information Systems, and for a detailed description of the six most highly developed software products relevant for the Safe Harbors project, please refer to “Homeless Management Information Systems: An In-depth Look” at <http://www.McCormack.umb.edu> and click on Center for Social Policy (CSP) button. This will take you to the CSP homepage where you will see the button for downloading this report.

Hardware. Another time consuming and potentially expensive part of the preparation work is hardware acquisition. There are four categories of work in this item:

- a) Plan of the Infrastructure. Although Safe Harbors is voluntary, it is the responsibility of the Safe Harbors Project Manager to work in coordination with the Server Organization, in the preparation of a blueprint of the overall infrastructure. Traffic and loading estimates need to be made; planned data uploading schedules need to be prepared and tested; system halt and downtime communication processes need to be established and tested; switch to backup system needs to be planned and tested. All of these tasks are dependent on the software configuration (e.g. whether the entire Safe Harbors system is web-based or not).
- b) Central Server set-up, security and backup. Server configuration is dependent on software and database engine chosen. The selected software vendor will assist the server organization in the detailed specification of the server configuration. In addition, security mechanisms need to be set-up such as firewalls and backup. A separate contract with an organization expert at testing the security functionality will also need to be arranged at this stage.
- c) Equipment Acquisition. A coordinated effort should be made to assist service providers in the acquisition and installation of their equipment. The objective is to achieve economies of scale and to ensure a certain level of standard for service and support.
- d) Network preparation. A concerted effort should be made to establish a common set of standards pertaining to network configuration. These include but are not limited to: choice of ISP, local network within a site (a service provider building), modem, network interface card, etc. We make this recommendation thinking of those agencies that do not have the level of technical sophistication of the larger agencies for whom this issue is immaterial. However, smaller sites would benefit from standardization in that the provision of maintenance and troubleshooting services could be done more efficiently.

Personnel. Personnel involves the Safe Harbors Project Manager , technical staff at Server Organization, and assigned individual(s) at each service provider site. These individuals need to be in place with specific roles and properly trained prior to the go-live date.

Training. A key element to the success of any computerized system is training. Safe Harbors should be no exception.

**Training for Central Server personnel.** Throughout every stage of the project's implementation, technological advances will be a constant. For this reason, resources will need to be set aside to enable Central Server staff to keep up to speed so that they will be in a position to offer high-quality training and technical assistance to service providers in program sites. Our cost estimates include an allocation of resources to cover these expenses at an adequate level.

**Trainings for service providers in program sites.** We recommend that cycles of at least three curriculums be developed under a Safe Harbors training program. The proposed curriculums for service providers would be as follows: Basics, Level 1 and Level 2 training. The Basics program should be designed for those individuals new to computers and networks. Level 1 training should be a review of the infrastructure, procedures and operation of the I & R application. Level 2 training should be a review of the infrastructure, procedures and operation of the System-Wide information component of Safe Harbors. Recognizing the possibly high staff turnover rates within some service provider agencies, we recommend these programs to be cyclical, that is to be offered each several times every year. Our recommended schedule is as follows:

Training sessions	Year 1	Year 2	Year 3
Basics (windows, report generation)	6	6	6
Level 1	6	6	6
Level 2	6	6	8

**Overall Implementation Phases.**

**Phase 1 Central Server(s) Start-Up.**

The project will be in Phase 1 when the implementation structure is in place, the system is installed at the central organization, and training of implementation staff at the central organization is completed. This phase involves the following detailed steps:

- Software selection and/or enhancement
- Pricing negotiations and customization agreement
- Software customization
- Hardware acquisition and installation
- Security and backup acquisition and installation
- Software installation, configuration and testing
- Training of professional staff at the server organization
- Penetration testing by a third-party and corrective action on software, hardware or security set-up.

- Policy on system breakdown, switch to backup and recovery. Testing of the procedure

## **Phase 2      Level 1: I&R Implementation**

The project will be in Phase 2 when most of the central effort is devoted to taking the majority of the participating sites to Stage 2 (Level 1: I&R in use) of their implementation. Major steps involved:

- Formalization of directory update procedures
- Implementation of such procedures
- Develop and deliver Level 1 training program
- Assist sites in Stages 1 and 2 of their implementation

## **Phase 3      Level 2: System Wide Information Implementation**

The project will be in Phase 3 when most of the central effort is devoted to taking the majority of the participating sites to Stage 4 (Level 2: System Wide Information data uploading) of their implementation. Major steps involved:

- Develop and deliver Level 2 training program
- Assist sites in stages 3, 4 and 5 of their implementation
- Develop reporting specifications at aggregate level
- Work with individual sites on becoming self-sufficient in the production of site-level reports

## **Phase 4      Full Implementation**

The project will be in Phase 4 when most of the central effort is devoted to taking the majority of the participating sites to Stage 5 (Level 2: System Wide Information operational) of their implementation. This phase marks the transition from implementation to regular use. Major steps involved:

- Develop specifications to aggregate and extract data from the central server to show major trends and gaps.
- Work on developing the reports.
- Continuous assistance to sites
- Ongoing training

## **Phase 5      System Operational**

The project will be in Phase 5 when some of the central effort is devoted to providing operational support to participating sites and most of the central effort is devoted to data analysis and reporting by exception. Major tasks:

- Assisting sites with complex reports and troubleshooting

- Working on automating the I&R maintenance process

## **Site Implementation Methodology.**

### **Pre-Stage 1 Preparation**

A site will be in Pre-Stage 1 during the planning process. The site makes the commitment and begins discussions with the central organization's implementers.

### **Stage 1 Start-Up**

A site will be in Stage 1 when it becomes a new site, works on start-up and training steps.

### **Stage 2 Level 1: I&R In Use**

A site will be in Stage 2 when the Level 1 system is installed, staff is trained and mediated I&R services are provided at the site.

### **Stage 3 Level 2: System Wide Information Local Use**

A site will be in Stage 3 when the Level 2 system is installed, staff is trained and data entry has begun.

### **Stage 4 Level 2: System Wide Information Data Uploading**

A site will be in Stage 4 when data is entered regularly on many clients and has transmitted data to the central server.

### **Stage 5 Level 2: System Wide Information Operational**

A site will be in Stage 5 when it is fully operational, core de-identified data elements for most clients are entered and transmitted regularly.

### **Stage 6 Level 3: Case Management Extended Implementation (optional)**

A site will be in Stage 6 when the system has been fully integrated into the daily operations of the site and used for assessment, case management, service planning, residential logs and follow-ups.

## **Implementation control methodology.**

The implementation control methodology is a mechanism that we propose to monitor the progress of the implementation effort. It differs from the evaluation framework (presented in the next chapter) in that it focuses on the progression of

the implementation steps, rather than on the impact of Safe Harbors. To do so the methodology relies on the formulation of both operational and project deliverables. We propose that these deliverables be formulated by the Safe Harbors Staff Team, the Project Manager and representatives from the Server Organization(s), for review by the Steering Committee. Here we propose baseline operational and project deliverables.

## **Operational deliverables**

Operational deliverables are specific products, outcomes or targets that are to be completed or reached by the end of each year. We propose that the following deliverables be formulated and set according to the community's best estimates. See the operational deliverables matrix for the three-year rolling plan.

- Percentage of shelter, transitional and permanent housing organizations. Recognizing that at the beginning of the implementation these percentages will be zero, the targets should mean an increase in the percentage from year to year. We recommend that in the selection of the target organizations (recognizing that participation is voluntary), that some type of common criteria cluster them. For example, use organization type, program type, size, geography or common funding. This will allow addressing common procedures, issues and concerns.
- Percentage of clients served recorded through Safe Harbors. An excellent indicator of progress during implementation is the number of total transactions recorded in the central server. Data at the central server will provide the best indicator of coverage: unduplicated counts. The objective when using this criterion is to collect data on a percentage of individuals or families served. For example, an operational objective for year one could be to assist 10% of emergency shelter programs to upload at least 75% of client de-identified data.
- Target percentage of sites involved in the implementation (i.e. percentage of sites in stage 1, 2, 3 or 4 of their implementation). We recommend that the project administration adopt a strict follow-up process of the implementation's progression and to do this site-by-site. The reason for this is that implementation is extremely time consuming; it is gradual and slow. It is common for evaluators to assume that no progress is being made because deliverables have not been met. However, many hours of gradual progression will be put into the process and they should be accounted for. In our methodology we provide the stepping stones to document the slow, evolving progression of the implementation. The matrix shown below indicates the percentage of sites that should be at stages 1 through 6 in the three year period. It is important to note that at the end of the 3<sup>rd</sup> year only 10% of sites will be fully operational.

- Data elements. We recommend that after the review of prospective software packages, a group be formed to agree on a complete list of data elements to be supported in the system-wide information component of Safe Harbors. This issue should be resolved within the first year.
- Reports. Report requirements never end in actuality. We propose that a standard suite of reports be defined for Safe Harbors users, that will bring cost and time savings to service providers. The matrix shown below indicates that in the first year 50% of such reports should be defined; in the second year 100% of these reports should be defined.
- Client consent protocols. We recommend that client consent forms and protocols be defined early in the first year of operation. The matrix shown below indicates that these protocols should be defined in their entirety and in practice by the end of year 1.
- Training. For the implementation process to succeed, training must be constant. Worker turnover, computer skills, and the nature of the implementation process make it necessary to provide a platform for the community to learn, remember and relearn how to operate the system. We recommend that at least three types of training programs be developed: basic computer literacy and report generation course; use, maintenance and update of the I&R system; and use of the system wide information system.

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Complete necessary customization	100%		
Client consent protocols defined	100%		
Data elements agreed upon by stakeholders	100%		
Reports	50%	100%	
Sites in stage 2 of their implementation	25%	25%	30%
Sites in stage 3 of their implementation	20%	20%	40%
Sites in stage 4 of their implementation	10%	20%	20%
Sites in stage 5 of their implementation		20%	20%
Sites in stage 6 of their implementation		5%	5%
Training sessions			
Basics (windows, report generation)	6	6	6
Level 1	6	6	6
Level 2	6	6	8

Operational Deliverables Matrix

## Project deliverables

Project deliverables extend through the entire project and may not be realistic to assess them on a yearly basis. They represent ongoing efforts or major targets.

- **Aggregate reports.** A major indicator of overall project implementation success is the production of aggregate reports that help to explain trends and gaps in behaviors and services. We recommend that a set number of aggregate reports be defined as targets to demonstrate overall implementation progress.
- **Target percentages for overall implementation.** These are the ultimate criteria for evaluation: how many sites effectively use Safe Harbors.
- **Effective use of Safe Harbors directly impacting clients**  
This criterion relates to the overall effectiveness of Safe Harbors from the perspective of the client. This issue is address in the evaluation framework.
- **Effective use of Safe Harbors directly impacting service programs.**  
This criterion relates to the overall effectiveness of Safe Harbors from the perspective of the service provider. This issue is address in the evaluation framework.
- **Effective use of Safe Harbors directly impacting public policy**

This criterion relates to the overall effectiveness of Safe Harbors from the perspective of the policy maker. This issue is addressed in the evaluation framework.

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Phase 1 Start-up	100%		
Phase 2 I&R Implementation	25%	50%	80%
Phase 3 System Wide Information	20%	40%	80%
Phase 4 Full Implementation		20%	40%
For metrics (See evaluation framework)			

**Project Deliverables Matrix**

## **8. Evaluation Framework**

**General Approach.** We recommend an evaluation process based on the following principles and procedures.

- a) Evaluation steps should be conducted throughout the project, in accordance with the project’s implementation plan. The major steps are as follows:

Level 1 Component of Safe Harbors. Assessment of:

- The volume and type of I&R transactions
- The level of participation of new sites in I&R
- The speed at which homeless persons and case managers are able to complete information and referral processes

Level 2 Component of Safe Harbors. Assessment of:

- The extent to which aggregate data generated by Safe Harbors system is used to assess service effectiveness, to advocate for additional resources, and to inform resource decisions;
- The extent to which the Safe Harbors system reduces the level of effort service agencies must take to report to their federal, state and local funders;
- The level of participation of new sites in Level 2 Safe Harbors Component
- The impact of Safe Harbors on collaborative planning and decision making among stakeholders addressing homelessness in Seattle/King County

Level 3 Component of Safe Harbors. Assessment of:

- The volume and type of provider-mediated service planning transactions
- The level of participation of new sites in Level 3 Safe Harbors Component

- b) Evaluation that addresses both the effectiveness of the implementation process and project outcomes should be performed on:
- Specific outcomes at project milestones to be determined by the project's Steering Committee in conjunction with the Safe Harbors staff;
  - Process issues concerning both community planning dynamics and project implementation strategies.
- c) Three types of data collection mechanisms should be put into place:
- Technology-based mechanisms, designed to understand how specific technological tools are being used;
  - Survey-method questionnaires to elicit process-specific issues concerning the substantive area;
  - Process documentation techniques to understand the dynamics of the implementation process and to draw general recommendations.
- d) Both internal and external evaluation processes should be put into place during the first six months of the implementation.

Detail on the recommended evaluation plan follows.

### Safe Harbor Evaluation Design

Evaluation Questions	Evaluation Strategies			Data Collection Methods	Data Analysis Methods
	General Approach	Criteria for Assessment	Populations		
<b>Process evaluation</b>					
<p><u>Level 1: Information &amp; Referral:</u>                      1. What technological access mechanisms are most utilized by people who are homeless in King County?                      2. To what extent are the Seattle/King County homeless assistance programs participating in the I&amp;R component of Safe Harbors?</p>	1. Assessment of the volume and type of transactions (direct or provider-mediated transactions); 2. Assessment of the level of participation of new sites in the I&R component of Safe Harbors	1. All technologies will be used by people who are homeless in King County. a. The number of transactions by these persons will increase over the three years. b. The number of direct transactions by these persons will increase over the three years. 2. The number of service programs participating in the I&R component will increase over the three years.	Participants in I& R sites, including primary health clinics; shelters and service programs for homeless people; and public access settings	Statistical information collected on: 1. the volume of users, type of use (direct or provider-mediated), the type of information accessed by users, and 2. number of programs participating in the I&R component of Safe Harbors	1. Analysis of trends in use of I & R technologies over the course of a three year period, along the dimensions listed (volume of users, type of use, information accessed and 2. Analysis of changes in the number of programs participating over the course of a three year period
<p><u>Level 2: Community planning:</u>                      1. Does utilization of the system improve effectiveness of the Seattle/King County response to homelessness, including its ability to improve service outcomes, to advocate for additional resources, and to make informed resource decisions?                      2. Does utilization of the system reduce the data collection burden for agencies providing shelter and/or homeless assistance services?                      3. To what extent are the Seattle/King County programs that provide resources to homeless persons participating in Level 2 component of Safe Harbors?</p>	1. Assessment of extent to which aggregate data generated by the Safe Harbors system is used to assess service effectiveness, to advocate for additional resources and to inform resource decisions; 2. Assessment of the extent to which the Safe Harbors system reduces the level of effort service agencies must take to report to their federal, state and local funders; 3. Assessment of the level of participation of new sites in the Level 2 component of Safe Harbors	1. Aggregate data generated by the Safe Harbors system and used to assess service effectiveness, to advocate for additional resources and to inform resource decisions will increase over the three years; 2. The levels of effort participating service agencies take to report to their federal, state and local funders will decrease over the three years; 3. The number of service programs participating in the Level 2 component will increase over the three years.	Participants in I&R, shelter, and homeless assistance settings, including consumers, service providers, agency heads, advocates, City of Seattle, King County and United Way planners.	Statistical information collected on: 1. The extent to which service programs in the Safe Harbors system are collecting data needed for community planning purposes, including daily census data; client characteristics; and their resource/service needs. 2. The levels of effort required by participating service agencies to report to their federal, state and local funders; 3. The number of service programs participating in the Level 2 component of Safe Harbors.	1. Analysis of the types of aggregate data generated by the Safe Harbors system, including daily census data, client characteristics and service/resource needs, an inventory of service units, incidence and prevalence counts, and the dynamics of shelter stays and readmissions; 2. Analysis of changes in the levels of effort required by service agencies to report to their federal, state, and local funders as they use the Safe Harbors system; 3. Analysis of changes in the numbers of programs participating in the Level 2 component of Safe Harbors

Evaluation Questions	Evaluation Strategies			Data Collection Methods	Data Analysis Methods
	General Approach	Criteria for Assessment	Populations		
<b>Process evaluation</b>					
<p>Level 3: Case Management*</p> <p>1. Does utilization of the service planning functions in the Safe Harbors system increase and improve Seattle/King County homeless persons' timely access to information about available housing and supportive services?</p> <p>2. To what extent are the Seattle/King County homeless assistance programs participating in the Level 3 case management component of Safe Harbors?</p>	<p>1. Assessment of the volume and type of provider-mediated service planning transactions</p> <p>2. Assessment of the level of participation of new sites in the Level 3 case management component of Safe Harbors</p>	<p>1. The number of provider-mediated service planning transactions will increase over the three years</p> <p>2. The number of program sites using the Level 3 case management component will increase over the three years</p> <p>3. The number of computer-generated reports that case managers and consumers can use in obtaining resources that consumers need will increase over the course of the three years.</p>	<p>Participants in shelter and homeless assistance settings in Seattle/King County area, including consumers and service providers</p>	<p>Statistical information collected on:</p> <p>1. The volume of users and types of service planning transactions taking place</p> <p>2. The number of programs participating in the Level 3 case management component of Safe Harbors</p> <p>3. The number of computer-generated reports that case managers and consumers can use in obtaining resources that consumers need.</p>	<p>1. Analysis of trends in use of Level 3 case management component of Safe Harbors over the course of a three-year period.</p> <p>2. Analysis of changes in the number of programs using the Level 3 case management component over the course of a three year period</p> <p>2. Analysis of numbers of computer-generated reports made available for use by case managers and consumers over the course of a three-year period.</p>

Outcome Evaluation	General Approach	Criteria for Assessment	Populations	Data Collection Methods	Data Analysis Methods
<p><u>Level 1: Information/Referral:</u></p> <p>1. Does the new I &amp; R system increase and improve King County homeless persons' timely access to information about available housing and supportive services?</p>	<p>Assessment of the volume and type of transactions (direct or provider-mediated transactions) and the speed at which homeless persons and case managers are able to complete information and referral processes</p>	<p>1. Greater numbers of King County homeless persons use I&amp;R system;</p> <p>2. Homeless persons' and service providers' knowledge of resource options will be enhanced;</p> <p>3. Increased efficiency in use of available shelter beds/units;</p> <p>3. The speed of information and referral transactions will increase over the three years.</p>	<p>Participants and service providers in I&amp;R sites, including primary health clinics, shelters and services for homeless people in King County; and other public access settings.</p>	<p>1. Statistical information collected on: the volume of users, type of use (direct or provider-mediated), the type of information accessed by users, and the speed of information and referral transactions, and use of shelter beds/units.</p> <p>2. Survey of a representative sample of homeless persons and service providers in I &amp; R sites to assess impacts of I&amp;R on their knowledge of resource options and the speed of information and referral transactions.</p>	<p>1. Analysis of trends in use of I &amp; R technologies over the course of the three year grant period, along the dimensions listed (volume of users, type of use, and information accessed)</p> <p>2. Analysis of perceived impacts of I&amp;R system on homeless persons' and service providers' knowledge of resource options and the speed of information and referral transactions.</p>

<b>Outcome Evaluation</b>	<b>General Approach</b>	<b>Criteria for Assessment</b>	<b>Populations</b>	<b>Data Collection Methods</b>	<b>Data Analysis Methods</b>
<p><u>Level 2. Community Planning:</u></p> <p>1. Does use of aggregate data generated by the Safe Harbors system result in more effective planning to meet the needs of homeless persons in moving toward economic and housing stability?</p>	<p>1. Assessment of the impact of Safe Harbors on collaborative decision making among stakeholders addressing homelessness in the City of Seattle and King County</p>	<p>Resource and planning decisions that conform to needs as identified by system-generated aggregate data, and reflect consensus among the stakeholders will increase over the three years.</p>	<p>Participants in I&amp;R and community planning settings, including persons who are homeless, service providers, agency heads and managers, and city county and United Way planners.</p>	<p>Review of documentation of planning processes and decisions, including system-generated aggregate data as well as Steering Committee meeting minutes, memos, proposals, funding and other documentation of City and County planning decisions.</p>	<p>1. Analysis of extent to which resource and planning decisions conform to system-generated aggregate data, including daily census data, client characteristics and service/resource needs, an inventory of service units, incidence and prevalence counts, and the dynamics of shelter stays and readmissions. Analysis of extent to which resource and planning decisions reflect a consensus of stakeholders.</p>
<p><u>Level 3. Case Management:</u></p> <p>1. Does utilization of the service planning functions in the Safe Harbors system increase and improve Seattle/King County homeless persons' timely access to available housing and supportive services?</p>	<p>1. Assessment of the extent to which provider-mediated service planning transactions result in clients obtaining the services and resources to which they are referred</p>	<p>1. Provider-mediated service planning transactions that result in clients obtaining the services and resources to which they are referred will increase over the three year period</p>	<p>Participants in shelter and homeless assistance settings in Seattle/King County area, including consumers and service providers</p>	<p>1. Statistical information collected on the number of provider-mediated service planning transactions that result in consumers obtaining the services and resources to which they are referred</p> <p>2. Survey of a representative sample of homeless persons and case managers in homeless assistance programs to assess the impacts of Level 3 Case Management component of Safe Harbors on their knowledge of resources for which consumers are eligible and the speed with which they obtain these resources</p>	<p>1. Analysis of trends in provider-mediated service planning transactions that result in consumers obtaining the services and resources to which they are referred</p> <p>2. Analysis of perceived impacts of the Level 3 Case Management component of Safe Harbors of consumers obtaining the services and resources to which they are referred</p>

\* Case management in this evaluation format refers solely to those service transactions that take place between a consumer and a service provider, and do not include electronic transmission of client-level records between service providers. We are limiting the evaluation to this parameter for Level 3 based upon the guidance we have received from participants in the Safe Harbors planning processes.

## 9. Cost Analysis

The estimated costs for the implementation of Safe Harbors are divided over three years. This detailed cost analysis is closely aligned with the 3 year implementation plan described earlier in this document. It is important to note that all estimated costs are based upon what we believe to be very realistic projected levels of site participation for each component of Safe Harbors: 100% for implementation of the Level 1 I&R component and 80% for the Level 2 component. These percentages refer to site participation and not population coverage. The job categories and costs for project staff were supplied to us by the Safe Harbors Staff.

The cost of software varies significantly and depends on the pricing structure set by the software vendors. The prices presented here are set for the number of sites and users described earlier. Therefore, it should be assumed that the price for the software that we present here also assumes 100% site participation in Level 1 and 80% site participation in Level 2 by the end of the three year period. In this cost analysis our estimated pricing is based upon costs for the most expensive homeless management information system software applications. A comprehensive review of five software products that we consider most applicable for Safe Harbors is included in the appendix. These five software packages offer somewhat different levels of functionality. Therefore, it is recommended that these vendors be contacted to arrange presentations of their products to the community of interested parties.

Development costs will be incurred primarily for software customization (changes to the software programs in order to accommodate for specific requirements). We anticipate the development of a standard import/export utility to allow for data transfer to/from proprietary databases from/to the software's own database. Equally important will be the development of specific changes in the product's approach to client code creation and client data de-identification. Customization rates vary from vendor to vendor. We believe that our cost estimates for these customizations will be sufficient for the Safe Harbors system.

Some development will be necessary to set-up the I&R component for use in a kiosk. We have factored in a figure for the customization, as the configuration needed for Safe Harbors to our knowledge is not currently available in the market. However, setting up a kiosk for homeless I&R exclusively may be questionable. A public kiosk is likely to be accessed by a wide range of individuals not experiencing homelessness but who may be interested in searching for other human services programs. We recommend that the feasibility of setting-up homeless services kiosks only be critically analyzed.

We have included the cost of training Safe Harbors staff on software implementation, maintenance, upgrade and troubleshooting. Software vendors

have different training pricing schemes, but the figure included in our estimates is representative.

We have also included the estimated costs of training the staff who will be operating the system at the service program sites. This figure should cover the curriculum development and training on the specifics of the Safe Harbors system operation.

Finally, the cost to the Safe Harbors system, Central Server and participating programs alike, can be dramatically offset if the project team is able to garner resources from the range of funding sources described in the next section of this report. In addition to the public funding avenues, this project has the potential to offer private philanthropists from the foundation and corporate technology sectors many appealing opportunities that can make a substantial contribution to the success of the project.

Cost Analysis	Year 1	Year 2	Year 3
	40 sites	70 new sites 3% cost of living	70 new sites 3% cost of living
<b>Central Server Personnel (Levels 1, 2, &amp; 3)</b>			
Project Manager (City of Seattle position) 1FTE	\$ 80,000.00	\$ 82,400.00	\$ 84,872.00
Technology Manager/Network Administrator 1FTE	\$ 47,000.00	\$ 48,410.00	\$ 49,862.30
Computer Support Specialist 1FTE	\$ 32,000.00	\$ 32,960.00	\$ 33,948.80
Resource Specialist 1FTE	\$ 23,400.00	\$ 24,102.00	\$ 24,825.06
Information and Referral Specialist 1FTE	\$ 23,400.00	\$ 24,102.00	\$ 24,825.06
Data Manager 1FTE		\$ 33,000.00	\$ 33,990.00
Computer Support Specialists 2FTE		\$ 64,000.00	\$ 65,920.00
Project liaison .25	\$8,000	\$ 8,240.00	\$ 8,487.20
Sub-total	\$ 213,800.00	\$ 317,214.00	\$ 326,730.42
Benefits- 15%	\$ 32,070.00	\$ 47,582.10	\$ 49,009.56
Administrative Support - 25%	\$ 53,450.00	\$ 79,303.50	\$ 81,682.61
<b>Total Personnel</b>	\$ 299,320.00	\$ 444,099.60	\$ 457,422.59
<b>Hardware</b>			
<b>Central Servers Set-Up*</b>	\$ 30,000.00		
<b>Central Server Maintenance</b>		\$ 10,000.00	\$ 12,000.00
<b>Program Sites Set-Up*</b>			
~Level I (24 PCs & 10 Kiosks) \$10,000 per kiosk and \$1000 per PC	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00
~Level II (180 Sites - 80% coverage over 3 years)	\$ 40,000.00	\$ 70,000.00	\$ 70,000.00
~Site connectivity assuming Safe Harbors absorbs this cost for all sites	\$ 20,000.00	\$ 53,000.00	\$ 77,000.00
<b>Program Sites Maintenance (troubleshooting resources)</b>		\$ 10,000.00	\$ 10,000.00
<b>Software</b>			
<b>Central Server and User Licenses and Customization**</b>	\$ 205,000.00	\$ 205,000.00	\$ 205,000.00
<b>Training</b>			
Central Server Training	\$ 10,000.00	\$ 4,000.00	\$ 4,000.00
Basic User Training	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
Level I & II Training	\$ 2,400.00	\$ 2,400.00	\$ 2,800.00
<b>Other</b>	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
Central Server Travel			
Project Meeting Expenses			
Office Supplies			
Training Materials and Documents			
	\$ 669,920.00	\$ 861,699.60	\$ 901,422.59
<b>Grand Total</b>			\$ 2,433,042.19

\*Hardware acquisition and installation, security backup acquisition and installation, penetration testing by third party, connectivity

\*\*Software selection; Software acquisition, installation, configuration and testing. Customization: \$25,000 to assist agencies that require a convert utility

## 10. Potential Resources

The City of Seattle, King County and the United Way of King County, as key partners in spearheading the Safe Harbors Initiative, have assumed major responsibility for identifying the resources for its implementation. As such, they have requested that the consultant team include in this report suggested avenues for funding the project. The following is a beginning set of ideas for fund development. We have identified funding options that will not re-direct funds from services but rather have the potential to draw additional resources into the Seattle/King County homeless assistance network.

### **Planned commitment of resources from the City of Seattle and the United Way of King County**

**The City of Seattle.** In late Fall the Human Services, Education and Civil Rights Committee was successful in receiving approval from the Seattle City Council for funding a portion of the Safe Harbors implementation. The approved Statement of Legislative Intent (SLI) follows:

“A maximum of \$680,000 will be appropriated for the implementation of the Safe Harbors System. These funds shall not be expended until the Housing, Human Services, Education and Civil Rights Committee has received and approved the consultant’s final design and implementation plan (expected to be submitted in January 2001).

A minimum of a 1:1 match for City funds must be secured from other non-City sources such as the United Way, Federal, States or other public or private entities. The required match may consist of cash, equipment or in-kind services.

The Human Services Department shall provide a report by September 1, 2001 regarding implementation of the Safe Harbors System, including a report concerning the funding secured for implementation and fulfillment of the 1:1 match requirement.”

**The United Way of King County.** The United Way is currently sponsoring a homelessness initiative known as *Out of the Rain*, which is working to enhance collaboration, understanding and resources to alleviate and prevent homelessness in King County. One of the eleven strategies in *Out of the Rain*’s overall design is to “better coordinate our region’s homeless response system.” A data system such as Safe harbors is acknowledged in the *Out of the Rain* plan as an important component in improving the overall system of services for homeless people.

As part of its fund development work to carry out the 11 strategies, the *Out of the Rain* initiative anticipates that it will be able to identify private investors with a particular interest in the use of technology to improve homeless services, and share with them information about the Safe Harbors effort and the various

opportunities available to help implement it. This would likely include requests for direct financial support as well as other resources such as donations of hardware, software, training, programming, etc. Such fund development work would take place once the Safe Harbors partners have agreed upon a feasible, appropriate system design and shared implementation approach that they are willing to pursue. The United Way of King County, in conjunction with the other partners of the Safe Harbors initiative, will explore a specific fund development strategy for Safe Harbors upon completion of the proposed design and implementation plan in early Winter 2001.

## **Other Funding Avenues.**

Federal technology grant programs: The Technology Opportunities Program (TOP). Several communities across the country have implemented systems similar to the proposed Safe Harbors System through use of Department of Commerce TOP grant funds (in combination with local matching resources). The Crisis Services of Alabama ( a FY2000 awardee) and Project IMPACT in Lake County, Illinois (a FY1999 awardee) are two such communities. The TOP “promotes the widespread availability and use of advanced telecommunications technologies in the public and non-profit sectors...TOP gives grants for model projects demonstrating innovative uses of network technology. TOP evaluates and actively shares the lessons learned from these projects to ensure the benefits are broadly distributed across the country, especially in rural and underserved communities.”

The FY 2001 Notice of Funding Availability (NOFA) for TOP grants is due to be released on January 11, 2001 with an expected deadline for proposals in the month of March 2001. These multi-year grants are highly competitive; in FY 2000, 662 proposals were submitted and 35 awards were granted. Local matching funds are a requirement. Grant awards for each of the Alabama and Lake County, IL projects exceeded \$300,000. The Safe Harbors Level II & R component in particular appears very compatible with TOP objectives. We recommend that Safe Harbors staff review the TOP website ([www.ntia.doc.gov](http://www.ntia.doc.gov)) for information about the application process and its history of grant awards. In addition, staff attendance at one of its upcoming technical assistance workshops is strongly advised.

## **Other Public Funding Options.**

Many jurisdictions across the country have received U.S. Department of Housing and Urban Development (HUD) Technical Assistance funds to facilitate their HMIS implementations. In addition, each state has its own programs for funding technology projects that will improve the effectiveness of publicly funded services (i.e. technology bond or trust funds). We recommend that Safe Harbors staff explore these funding options.

**GiftsInKind, International.** This corporation manages the product philanthropy for nearly 40% of the Fortune 500 companies. This corporation is currently engaged with the National Human Services Data Consortium (NHSDC) whose member communities are implementing Homeless Management Information Systems (HMIS) across their cities, counties or states. The Executive Director of GiftsInKind is in the process of proposing to the major suppliers of computers and Internet access in the US that they consider NHSDC communities as a priority for their giving. She is specifically targeting CompUSA, Gateway Country, Dell, AOL, and Verizon for donations of computers, broadband Internet access and training. The Seattle/King County Safe Harbors staff received and responded positively to an invitation from the consultant team to join in this effort.

**NPower.org.** NPower is a technology resource located in the heart of Seattle. Its mission is “helping non-profits use technology to better serve their communities.” The initial geographic priority of this organization is the Puget Sound area. Services and resources include: assessing non-profits’ technology status, providing hands-on technical assistance, conducting trainings, offering an online library of resources, and matching non-profits with volunteers for short-term technology projects.

**TechFoundation.** This new foundation is being launched in January 2001 to provide long-distance service and technical consultation resources to non-profits to help them utilize technology to improve program operations. David Altshuler, formerly the Executive Director of TCN in Cambridge, MA, is the founder and Executive Director of this foundation. With a funding base of more than \$2.5 million, the foundation anticipates awarding \$500,000 within the next 12 months. The TechFoundation is based in Cambridge, MA with offices in New York, Washington, D.C. and Seattle.

## 11. Concluding Thoughts

The consultant team has had the opportunity over the past 10 months to witness the Seattle/King County community's commitment to effectively fight homelessness and to eliminate the barriers men, women and children face when they must rely upon the service system to meet some of their most basic needs. The collective talent, intelligence, energy, and sheer hours of work on the part of so many men and women who engaged in the planning process for Safe Harbors is clear evidence of this commitment.

Early on in the design process, community participants made it clear to us that they want Safe Harbors to result in easy access to resources for individuals and families who are homeless or near homeless, and in substantial improvements in the Seattle/King County response to homelessness. Furthermore, we learned that the bedrock principle grounding all aspects of the implementation of Safe Harbors should be to ensure maximum protection of the privacy rights of individuals and families who use services that are part of the Safe Harbors System.

We feel very confident that the work undertaken thus far in planning Safe Harbors will enable the Seattle/King County community to realize these goals. We offer this final design report as our most complete portrayal of what we believe needs to be done to move ahead and to achieve realistic outcomes over the next three years. The plan builds upon the what we know about the strengths of the Seattle/King County public, non-profit and private sectors who have a stake in addressing and ending homelessness. It also recommends processes for continuing to engage people who hold widely disparate views regarding how technology can and should be used to respond to homelessness in Seattle/King County. We are honored to have had a role as your partners in crafting this plan for the future.

# **APPENDIX**

- A. Description of Potential Software Tools
- B. Advisory and Work Group Members



### Background and Purpose

Bowman Internet Systems is an Internet company that, in addition to web-site development, web hosting, and other business services, developed a single-point of entry client-tracking system.

ServicePoint is a web-enabled information management system built specifically for human service agencies, coalitions, communities, and states to track client and resource information in a user friendly, real-time environment. ServicePoint was released in 1999 after three years of collaboration with homeless agencies and Human Service coalitions.

### Architecture and Database Structure

ServicePoint is a web-based system using Microsoft SQL Server and Internet Information Server. It can be run over a LAN (Local Area Network) and data can be stored locally or at a centralized location, using a centralized or a distributed database model.

ServicePoint utilizes web programming techniques and a SQL database engine that allows users to input, archive, and retrieve information through their web browser. ServicePoint is a multi-user database that is accessible via an existing Internet connection. It is designed to track client and resource information in a real-time environment. Since ServicePoint is a web-based system, data can be integrated into a publicly accessible website. Data analysis findings are available for public viewing.

The following modules are included within the ServicePoint software:

- ClientPoint - intake and assessment;
- ServicePoint - enter and track referrals, needs, and services;
- ShelterPoint - check clients in and out, manage shelter inventory, and make referrals;
- ResourcePoint - a database of area agency and program information; and
- NewsWire - post important news items, including community news boards.

ServicePoint also offers an email referral option. An agency can choose to communicate via email with the program to which a client is being referred.

### Security and Privacy

ServicePoint is accessed through a user name and password process. When a client is entered onto the system at a local site, a case manager may choose to leave access to the record open, or to restrict access. At the operating system level, ServicePoint relies upon the ability of Windows NT to record server log transactions. The vendor is currently in the process of building a web-based audit trail function to their software; this feature will be included in the 2.0 release in Feb. 2001. ServicePoint also offers

disaster recovery services, including 24-hour emergency support, server restoration, and remote daily tape backups.

### Data Elements

Bowman Internet Systems' ServicePoint interface collects many data elements in several fields. It gathers demographic information for clients and their accompanying family members. Comprehensive service, physical and mental health, alcohol and drug usage, legal information, and case management tracking are available. ServicePoint records residential history, educational history and goals, employment history and information, and current income. It also features exit information, referral and follow-up, and shelter specification screens. The ShelterPoint module offers nightly bed tracking.

### Customization and Reporting Capabilities

ServicePoint is sold as an off-the-shelf product, however the developers acknowledge the need to customize the system to meet the specific needs of an agency, coalition, or organization. Bowman Internet Systems is currently planning an upgrade for 2001 that will feature several enhancements. Among additional features planned are: a web-page builder for inexperienced users to publish an agency or program website; a food-pantry module to be used specifically for programs that serve meals; VolunteerPoint, a module allowing users to post volunteer opportunities on a public website; CallPoint, a module designed for call centers, outreach workers, and others who need a one-screen quick entry system for tracking clients; an eligibility module to automatically determine program eligibility; free standing community kiosks; and off-line entry with a Palm Pilot or portable device.

The 'Report Center' feature in ServicePoint allows the user to generate customized reports for agencies or programs. Bowman Internet Systems has built HUD and FEMA annual reporting capabilities into the ServicePoint system.

### System Requirements

#### Workstations

Operating System: *Windows 95+, MacIntosh 8.0+*  
Processing Speed: *Pentium*  
Memory: *16 MB RAM*  
Hard Disk Space: *4.3 GB*  
Modems and/or Internet Connections: *Required, Microsoft Internet Explorer/ Netscape Navigator*

#### Server

Operating System: *Windows NT 4.0*  
Processing Speed: *200 MHz Processor*  
Memory: *128 MB RAM*  
Hard Drive: *4.3 GB Hard Drive*  
Modems and/or Internet Connections: *28.8 Modem, 128 KB + dedicated connection*

### Personnel Requirements

The system requires system administration staff and personnel to input and maintain a comprehensive list of referrals in ResourcePoint. System Administrator requirements vary depending upon the type of implementation deployed. If the server is hosted on

the Bowman Internet Systems' network, most of the server administrator duties will be performed as part of the monthly server fee. If the client purchases the system to operate at their location, the System Administrator will need to possess advanced network administration and support skills.

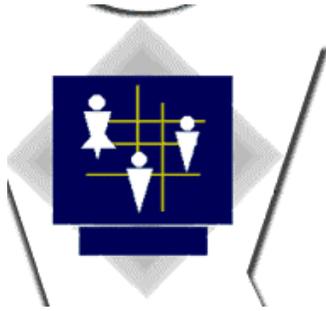
A representative from each coalition or organization is responsible for coordinating system implementation. They meet, test, evaluate, and approve each phase of the implementation schedule.

Costs

	<i>One Time Fixed Costs</i>	<i>One Time Variable Costs</i>	<i>Variable Costs First 12 Mos.</i>	<i>Variable Costs Second 12 Mos.</i>	<b><i>Total 2-Year Costs</i></b>
ServicePoint- Small Community	\$6,294	\$20,700	\$5,060	\$5,060	<b>\$37,114</b>
ServicePoint- Medium Community	\$6,294	\$60,000	\$15,000	\$40,000	<b>\$121,294</b>
ServicePoint- Large Community	\$6,294	\$105,000	\$27,000	\$71,000	<b>\$209,294</b>

Technical Assistance Hourly Rates (unless otherwise indicated)

	<i>Customization</i>	<i>Training</i>
ServicePoint	\$75/ hr	\$795/ day



**CLIENTTRACK™**  
Homeless

### Background and Purpose

Data Systems International (DSI) was established in 1983 to promote a business software package developed for a multi-user environment. DSI provides integrated software system solutions that can be modified for a variety of agencies and program needs.

DSI's ClientTrack application utilizes web application technology for people, case, client, and information management. ClientTrack is a multi-faceted, modular application specifically designed to track and manage people and information. ClientTrack is one solution in their range of products and was designed to be a complete case management and reporting application for homeless service providers.

### Architecture and Database Structure

The ClientTrack software is configured using the centralized database model. DSI's ClientTrack utilizes Internet-based technology, but can also be used over a LAN (Local Area Network), WAN (Wide Area Network), or a dial-up connection. ClientTrack provides a web-based system for sites and large localities that are connected to the Internet, but also offers human service solutions to smaller agencies. Agencies that want to shift to an Internet system at a later time may do so without losing data or functionality. ClientTrack uses a Microsoft SQL Server database and can handle large numbers of users and records.

The ClientTrack software features multi-tier architecture. The most common configuration consists of three tiers: data storage is at the server level; the user interface is at the site level; and a middle level generally contains the business rules, directs traffic to the server, and provides security to the server. This multi-level database allows flexibility for sharing of data for state, regional, and county/local areas. With a multi-tier design, if one tier is altered, it will not affect the other tiers. This arrangement allows for many low-cost, low-powered client computers and a few expensive, powerful servers in a central location.

Data transfer can occur real-time while maintaining real-time interaction with other systems over LANs, WANs, and the Internet. A 'verify application' option ensures that all the required fields on the application are complete and have been responded to correctly. A list of all elements that have not been completed, or are not in the correct format, is displayed upon exit.

## Security and Privacy

ClientTrack requires a user name and password for different levels of access for each user for input, on-line inquiries, and viewing. Data transfers between client computers and the centralized repository are encrypted. Client authorization to share data is recommended. An 'information release' feature allows the user to specify client authorizations for which agencies will be granted access to the shared client information.

ClientTrack contains audit trail capabilities for specific standard features such as initial intake application and case notes. Once a record is created, the system allows the user to lock down or write protect it. In addition, DSI can create a table that would track changes made to a record/field once an audit trail requirement is identified.

## Data Elements

DSI's ClientTrack has comprehensive data tracking capabilities. It collects thorough demographic, family member, case management, exit, and follow-up information. It records agency specifications, such as type of program, address, and funding sources. ClientTrack records all information about services received, residential history, educational history and goals, employment history and goals, and current income and assistance benefits. It collects basic health, mental health, alcohol, drug, and legal issues and contains a nightly bed list. ClientTrack allows input of multiple programs at one agency and users can track which services a client receives by program. The software also features a cost analysis of services received for billing purposes.

## Customization and Reporting Capabilities

DSI has explained that all components of the ClientTrack system are adaptable to the different needs of agency participants. If any customizations or data conversion are necessary, DSI will negotiate that as part of a contract, and build tables, logic, and data elements needed to facilitate this process. As part of a data conversion process, DSI will ensure that the data is accessible in a standard SQL data exchange format and agencies can monitor accuracy of data conversion.

The Case Management Reports module is a version of Crystal Reports and contains extensive reporting capabilities for client demographic, service information, and agency funding information. Individuals can build their own reports by choosing data fields, sort orders, and data ranges. ClientTrack also contains tools to generate responses for HUD's Annual Progress Report. The software also produces a report that measures individual clients' length-of-stay.

System Requirements

<p><u>Workstations</u>          Operating System: <i>Windows 95</i>          Processing Speed: <i>Pentium 100 MHz</i>          Memory: <i>64 MB RAM</i>          Hard Drive Space: <i>50 MB</i>          Modem or Internet Connection: <i>Required</i></p>
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<p><u>Application Server</u>          Operating System: <i>NT Server 4.0 SP 4+</i>          Processing Speed: <i>Pentium 400 MHz</i>          Memory: <i>500 MB RAM</i>          Hard Drive Space: <i>2 GB</i>          Modem or Internet Connection: <i>Required</i></p>
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<p><u>Database Server</u>          Operating System: <i>NT Server 4.0 SP 4+, Microsoft SQL Server or Oracle 7</i>          Processing Speed: <i>Pentium 400 MHz</i>          Memory: <i>500 MB RAM</i>          Hard Drive Space: <i>5 GB</i>          Modem or Internet Connection: <i>Required</i></p>
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Personnel Requirements

DSI recommends that each community employ a System Administrator responsible for maintaining the network, hardware, and communications; a Database Administrator responsible for accuracy and integrity of data; and a Trainer responsible for ensuring that all sites and users understand how to correctly use ClientTrack. It is possible that one or two people could fulfill more than one role and the duties of each could overlap.

Costs

	<i>One Time Fixed Costs</i>	<i>One Time Variable Costs</i>	<i>Variable Costs First 12 Mos.</i>	<i>Variable Costs Second 12 Mos.</i>	<b><i>Total 2-Year Costs</i></b>
ClientTrack-Small Community	\$28,500	\$48,750	\$8,775	\$8,775	<b>\$94,800</b>
ClientTrack-Medium Community	\$28,500	\$96,750	\$17,415	\$90,790	<b>\$233,455</b>
ClientTrack-Large Community	\$28,500	\$181,500	\$32,670	\$47,420	<b>\$290,090</b>

Technical Assistance Hourly Rates (unless otherwise indicated)

	<i>Customization</i>	<i>Training</i>
ClientTrack	\$150/day	\$1,050/day

# MetSYS

## ***MetSYS - Client Management and Service Integration System***

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### Background and Purpose

Pacific Management and Research Associates (PMRA), the firm that developed the MetSYS software, was founded in 1983 with the goal of specializing in planning and implementing policies for cross-agency collaboration. In 1994, MetSYS, Inc. separated from its parent company and now provides software tools for cross-agency client management and service integration. This review is of MetSYS 2.5; since this evaluation, the company released an updated version, MetSYS 2000. Contact them directly for information on the new product.

The MetSYS Client Management and Service Integration System is a single-point of entry system designed to capture data to integrate multiple agencies serving the same clients. MetSYS provides tools for intake and record keeping, client assessment, eligibility screening, individual service plans, referrals, program participation, progress reviews, and documentation of services.

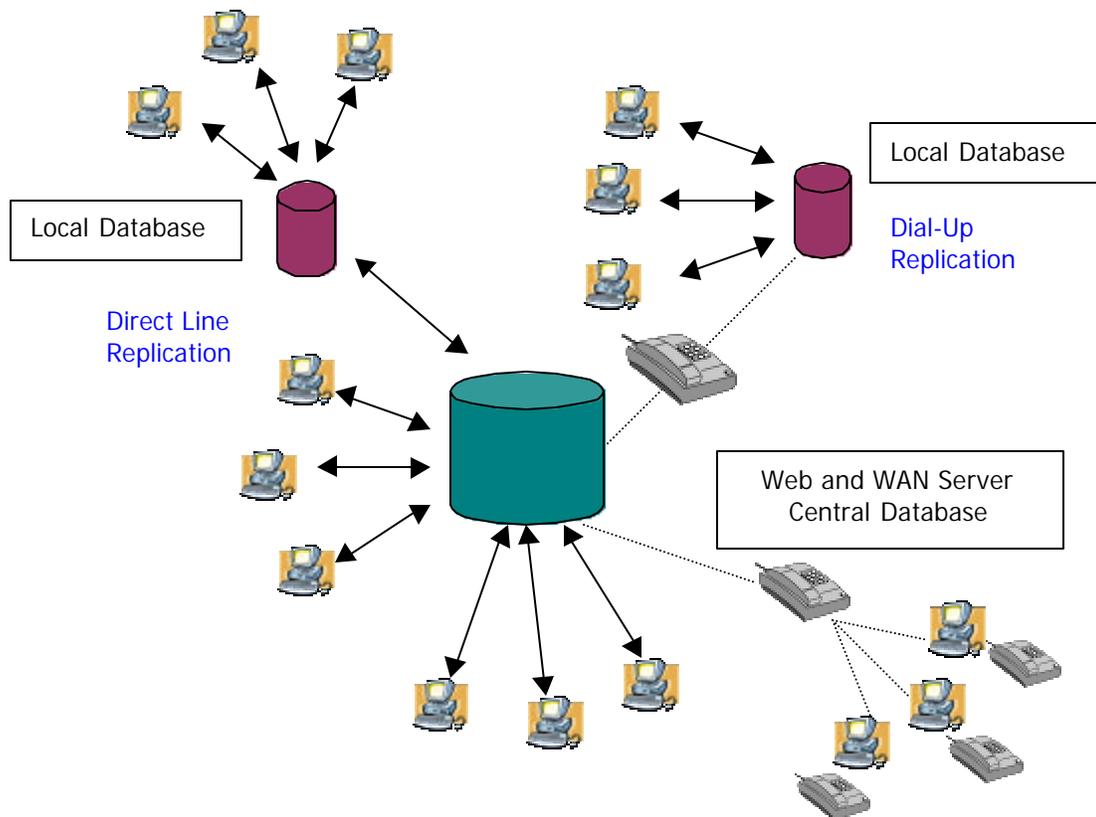
PMRA has developed several multi-site, client management systems that gave rise to the current MetSYS product. MetSYS is now installed in over 100 organizations and coalitions. System configurations are varied across the user base, including: one-site local area networks with less than ten workstations; multi-site, community-wide networks involving varied agencies and programs; and statewide networks. Project ReStart in Reno, NV is an example of a homeless assistance agency that uses MetSYS to track clients and referrals to county social service agencies.

### Architecture and Database Structure

MetSYS was designed for both Internet and desktop environments; it can use a centralized or distributed database model. MetSYS has several connectivity options: dial-up; LAN (Local Area Network)/WAN (Wide Area Network) configurations, and the Internet for sharing data and linking to other organizations in a community or region. MetSYS supports three database architectures. The one-tier system utilizes FoxPro and can be run at low cost on a single computer. A two-tier system utilizes Microsoft SQL and FoxPro Visual Basic across a networked system. A three-tier solution provides a combination of FoxPro and SQL Server with FoxPro business rules contained on the middle tier.

As shown below, MetSYS provides a combination of a browser system and a desktop-based system called a 'mixed architecture' model (see diagram below). This mixed-architecture model integrates browser-based and desktop modules linked to a common database to combine the strengths of both and allow greater flexibility and ease of use.

MetSYS can be accessed through a dial-up connection, a LAN (Local Area Network)/WAN (Wide Area Network), a cable modem, or any other Internet connection, and allows the exchange of real-time data. The SQL version (two or three-tier) of MetSYS provides enhanced database management tools.



### Security and Privacy

MetSYS contains a feature called the Data Replicator that allows agencies to send only desired data to partnering agencies. An agency also has the ability to not accept user-specified data fields from other agencies. Each record can also be marked 'local only', which will not allow any part of the record to be shared with other agencies.

Within an agency, a user name and password function restricts access to the system. Those who have administrator accounts can put security requirements on every field and function in MetSYS and restrict individual users to only those elements that they need to access. Each record type and field may have a security level from one to ten; and these levels can be set for view, add, edit, and delete. A further level of security

allows a special password to be set on an individual record. This allows access only those who are authorized to work with that particular record.

MetSYS 2.5 does not contain an audit trail. MetSYS 2000 has transaction logging built into the product at the database level. This audit trail is a log file that keeps a record of inserts, updates, and deletions made to data. The effect of the transaction log is that a user is not able to make changes to the database without database administrators having the ability to see the 'who, what and how' of the changes. The log contains the following information about each change made to data: user name; date and time; original data; updated data; record key (this is a piece of information used to uniquely identify each record in a database); and type of transaction (insert, update, or deletion).

### Data Elements

MetSYS is an extremely comprehensive software system that collects and records numerous data fields in each of the categories examined. MetSYS collects sweeping demographics, family members information, services, residential history, educational history and goals, employment history and goals, income, health, mental health, alcohol and drug dependency, legal issues, follow-up, case management, and exit information. MetSYS allows sites to record agency specifications and contains a nightly bed register. MetSYS allows user agencies to differentiate between multiple programs and tracks which program(s) a client participated in.

### Customization and Reporting Capabilities

MetSYS provides several customization tools within its product. A custom screen generator provides a wizard-based interface that allows users to design and organize their own computer screens. There are a limited amount of user-defined fields that can be created and users can modify drop down lists in existing fields. MetSYS allows users to create or modify criteria for determining client eligibility for different types of human services. Users can also define edit/validity checks for certain fields. In instances where the user-customizations still do not meet the needs of an agency, organization, or community, MetSYS will review specifications, determine costs, develop, and test custom modules.

The MetSYS custom report generator allows a user to produce any type of report that can be supported by data entered. There are seven basic steps that a user follows to create any report: select type; name; select data; set filters; custom format; run; and save or edit. MetSYS data can be exported to graph and charting software, database software (FoxPro, Access), financial software (Lotus 1-2-3, Excel), and statistical software (SPSS). MetSYS report-generating tools are supported by an on-line data dictionary, report manual, and technical bulletins about data elements and special techniques.

The MetSYS database is designed to provide data elements and values that are compatible with the HUD Annual Progress Report.

## System Requirements

### Workstations

Operating System: *Windows 95, 98, or NT 4.0*

Processing Speed: *120 MHz Pentium*

Memory: *16 MB RAM*

Hard Disk Space: *200 MB*

Modems and/or Internet Connection: *28.8 K*

*Display adapter or monitor that will support SVGA or higher graphics*

### Server

Operating System: *Windows NT 4.0*

Processing Speed: *Pentium II processor*

Memory: *128 MB RAM*

Hard Disk Space: *120 MB, SCSI Hard Disks*

Modems and/or Internet Connection:

*Windows NT compatible, high-speed*

*LAN: 10/100 MBPS network*

## Personnel Requirements

MetSYS Inc. estimates that successful implementation is dependent on staff integration and skill level. Each community must appoint a Project Manager with programmatic, technical, and management expertise to oversee, coordinate, and track the project as a whole. Each individual site must designate a staff member who is authorized to make decisions regarding the software and the program. Specific time must be allocated for each phase of the project: planning, implementation, and maintenance. A Network Administrator with Windows NT or Novell experience is required for planning connectivity options and maintaining the network. The Network Administrator and the Project Manager should have frequent and direct contact with individual site staff. Users need to be familiar with the basics of personal computers and the Windows operating environment. Extra training is needed for users who do not possess basic computing knowledge.

MetSYS has two approaches to training end users. The first method is an intensive two-day workshop with a maximum of 15 users and the second is a half-day training session for users followed by additional sessions conducted by on-site staff trained in the MetSYS 'train the trainers' workshop. Regardless of the training method chosen, users will only be trained after the software has been customized and installed at individual sites.

## Implementation Requirements

The vendor reports that the success of the implementation process will be determined by the ability of all parties to work together to create a system that best meets the needs of the clients within a community. The first step is to assess existing software and create customizations of data fields and modules. After a series of meetings with MetSYS staff, the Project Manager, and program staff to determine client flow, services offered, and reporting requirements, a time frame based on customizations and data conversion will be developed. After a customized product has been created, a community or organization must choose which connectivity configuration is best for them and determine the need and method for data replication and sharing. Agencies and organizations in the service provider community that will be used as information and

referral resources must be informed about MetSYS and its uses. The software can then be installed. After the system is tested for functionality and adjustments are made, users are trained. Training workshops require facilities that are equipped with proper hardware and software, and ongoing technical support between MetSYS staff and agency staff is crucial. After training and final changes are made, a final version of MetSYS is installed and site staff can begin using the software for client management and service integration.

Cost

	<i>One Time Fixed Costs</i>	<i>One Time Variable Costs</i>	<i>Variable Costs First 12 Mos.</i>	<i>Variable Costs Second 12 Mos.</i>	<b><i>Total 2-Year Costs</i></b>
MetSYS-Small Community	---	\$4,500	\$13,145	\$7,128	<b>\$24,773</b>
MetSYS-Medium Community	---	\$4,500	\$24,350	\$17,763	<b>\$46,613</b>
MetSYS- Large Community	---	\$4,500	\$30,550	\$24,350	<b>\$59,400</b>

Rates

	<i>Customization</i>	<i>Training</i>	<i>Technical Support</i>
MetSYS	\$85/ hr	\$93/ hr	\$85/ hr



### Background and Purpose

The Pathways Community Network is a small, nonprofit group in Atlanta dedicated to making technology available to homeless service agencies and other social service organizations. The company has developed partnerships with technology providers, enabling them to use high-tech products on a non-profit budget. Their goals are to: help families and individuals in need to connect with and receive necessary services; give agencies the tools to make sure that their services are appropriate and effective; and help communities monitor the overall, long-term impact of these services.

Pathways Compass is a web-based client information system that features an interface with menus and drop-down options. Pathways Compass securely connects case managers, clinicians, and other service providers across a community to share information and work together closely to enhance services for homeless and at-risk families and individuals. This review is of Pathways Compass; since this evaluation the company has released an updated version, 2.0. The upgraded version 2.0 includes new features such as on-line data validation and error reporting.

### Architecture and Database Structure

The database is configured as a centralized model. Users can access Pathways Compass from any computer with an up-to-date Internet browser and connection. As the modem is only used for the actual downloading of a page and uploading of changes, users can share a modem connection. Pathways Compass is a real-time application with data shared instantaneously with other authorized users.

Data fields and modules can be added and customized. Pathways Compass uses the Oracle 8i database. The Oracle 8i database has robust archiving capabilities; all of the data for the agencies using the software is stored and maintained by the Pathways Community Network.

### Security and Privacy

Access requires a user name and password; users are allowed to view only the information that they are authorized to work with. A screen displays only data that the user is allowed to view; there are no indications that additional data exist. Client authorization forms should be completed before data can be accessed. Data are additionally protected with encryption technology during transmission to the centralized repository.

Pathways Compass contains an audit trail that produces a list of client authorizations, and staff who have certified these authorizations. The system also maintains records of attempted and successful logins, as well as changes to records on a user level.

### Data Elements

Pathways Compass collects comprehensive demographic data and records extensive information about site specifications. Only name and gender is recorded for accompanying family members (version 2.0 does however, include a full case record for each household member). The software records limited information regarding residential history, employment, education, income, services and case management, exit information, and health issues. An addiction module records alcohol and drug issues and monitors current treatment. Pathways Community Network does not collect information regarding mental health issues, or legal issues. There is no screen for recording follow-up information. The new 2.0 version allows agencies to record and share follow-up information. It also sends an automatic email to the receiving agency when a referral is made.

### Customization and Reporting Capabilities

Modules and data fields may be added for an additional cost, provided that they are useful to other Pathways Compass users and do not negatively affect system performance. Pathways contains 12 hidden, customer defined fields; six for intake and six for service records. Each System Administrator or program staff member may activate hidden, region-defined fields and can change visible agency defined fields and drop-down menus.

SQL generated reports are instantly available to Pathways Compass users in HTML or Adobe PDF formats. Pathways 2.0 users may download data and create reports using a spreadsheet (Lotus 1-2-3, Excel), a simple database (FoxPro, Access), or a personal reports application (Crystal Reports). Pathways Compass is compatible with current HUD data collection requirements, including formatting data for the Annual Progress Report.

### System Requirements

#### Workstations

*Operating System: Windows 3.1; Windows 95; Windows 98; Linux; or MacIntosh*  
*Processing Speed: 486 or better*  
*Memory: 16 MB Ram*  
*Hard Drive Space: 540 MB*  
*Modem or Internet Connection: 56K*  
*Netscape 4.7 or higher; Opera 3.5 or higher; or Internet Explorer 5.0 or higher*

#### Server

*Operating System: Windows 95, Windows 98*  
*Processing Speed: 450 MHz Pentium*  
*Memory: 512 MB RAM,*  
*Hard Drive Space: 9 GB*  
*Modem or Internet Connection: 56K or higher*

## Personnel Requirements

A System Administrator is responsible for activating or changing agency or region-defined fields and drop-down menus. The System Administrator is also responsible for overseeing data and user accounts.

## Costs

	<i>One Time Fixed Costs</i>	<i>One Time Variable Costs</i>	<i>Variable Costs First 12 Mos.</i>	<i>Variable Costs Second 12 Mos.</i>	<b><i>Total 2- Year Costs</i></b>
Pathways Compass- Small Community	---	\$56,347	\$10,701	\$10,701	<b>\$77,749</b>
Pathways Compass- Medium Community	---	\$107,275	\$21,905	\$21,905	<b>\$151,085</b>
Pathways Compass- Large Community	---	\$186,259	\$39,282	\$39,282	<b>\$264,822</b>

### Technical Assistance Hourly Rates (unless otherwise indicated)

	<i>Customization</i>	<i>Technical Support</i>
Pathways Compass	\$150	\$100*

\*\$50 on-site system support, \$100 on-site systems analysis, \$150 on-site database administration



The Resource House Information and Referral system works through a set of software products developed using Microsoft Visual Studio. The master database is housed in a Microsoft SQL Server database residing on a Microsoft NT server platform. The software uses Microsoft Internet Information Server to interface with the Web and can be accessed by individuals with little or no computer experience from home, work, public libraries, schools, health clinics, and other community-based organizations. The Resource House can be configured as a touch screen system and the web pages displayed with touchable command buttons, rather than standard HTML underline links.

The software allows individuals to find an assortment of resource information about health care, job training, childcare, retirement and human services and creates a confidential personal record that can be used to automatically sign up for services. The software offers interactive, talking, multicultural and multilingual guides using a fifth-grade vocabulary through the Talking Guides CD-ROM. Participating agencies and institutions can read and respond to public inquiries, download intake information, and view demographic statistics about individuals who have shown interest in their programs. A Quicken-style interface allows an unlimited number of screens to be opened, each with its own tab; for referrals, separate searches, individual provider maps, program detail screens and client tracking screens

All referral information provided on the site is locally administered and updated. Service providers can receive the personal record applications via fax, e-mail or direct data download from the Web. The Resource House also allows consumers to send questions, comments, and eligibility inquiries directly to service providers and receive answers in their own personal mailbox file on the Resource House site. A general resource-matching and financial planning service is also accessible. North Light information and referral partners locally maintain the Resource House database of local services.

#### The Resource House Provider Annex

Within the Resource House, the Provider Annex allows community agencies and educational institutions to update information about their programs stored in the Resource House Library. These updates are automatically forward to the local Resource House Hub, a central clearing-house for community information that provides quality control and day-to-day maintenance.

The system also gives community planners the ability to display cumulative statistics on inquiries, users' anonymous profile information, unmet needs and taxonomy service categories for which people inquired or signed up. The client-server architecture of the Resource House creates automatic local, regional and statewide database integration.

### Security and Privacy

Each user must have a logon name and password before being allowed access to the system. Consumer data records are encrypted at the record level with a password known only to the consumer. Although all other resources (i.e. provider records) are public domain, data is restricted to providers with valid certificate IDs, so they, too, have control of their own data. The operating system allows system administrators to audit security reviews. The operating system protects data stored in memory.

### Web Hosting

The Resource House can be hosted on a local server, on North Light's server or on both a local and North Light servers simultaneously. The software is designed so data is automatically uploaded to both. North Light recommends that they host or co-host the server for cost effectiveness of providing tech support including: adding new features to one central location; off-site data backup; and evaluation and provision of additional hardware requirements,

If an organization or agency already has a web-site on another server, North Light will create a customized page that can be added to pages on the existing server. The Resource House pages--housed on North Light's server—are integrated into an existing web-site and appear as on continuous web site.

### System Requirements

The public access portion of The Resource House requires a Web browser compliant with HTML 3.1 or better and access to the Internet. Similarly, agencies and system partners can access The Resource House's Provider Annex with HTML 3.1 compliant browsers.

The Resource House system currently requires Access97 database. While it is possible to open, inspect and modify data in Access2000, users of the "hub" and "partner" software should not convert or modify the database design to Access2000.

### Customization and Reporting Capabilities

A "roll-your-own" case management/client system lets users start with the core enrollment fields, configure the ones to be used and add any number of new fields in five categories: text, numbers, dates, pick lists, and check boxes. If a field is set as a pick list, pick list options for that field can also be set up. These client fields can be sequenced in any order and that is the order chosen is the order they appear on the "client" tab when a new client is opened. This system is designed to interact directly with enrollments coming down from The Resource House. Automatic shortcut keys, which are set for every client field configured, enhance date entry. Search criteria can include any combination of search keywords, Info-line codes, People's codes or features, plus geographic designators--zip, city and county.

In the Provider Annex, agencies can create reports and view statistics on:

- The number of times users have "saved" their program for later reference
- The number of email requests they've received
- The number of enrollments they've received
- I&Rs "hubs" also receive the following reports:

- General system comments submitted to the "hub" by users
- Summaries of users' responses to the Resource House "exit interview" (unmet needs, level of user satisfaction)

Aggregate demographic data cross-referenced by taxonomy category (both for inquiries and enrollments).

## B. Advisory Committee and Work Group Members

### **The Safe Harbors Advisory Committee**

Peter Steinbrueck, Co-Chair, Seattle City Council  
Gary Gigot, Co-Chair, United Way Board of Directors  
Terry Anderson, Councilmember, City of SeaTac / Member, South King Co. Human Services Forum  
Janaea Bellows, Peace for the Streets by Kids from the Streets  
Tom Byers, Deputy Mayor, City of Seattle  
Joan Campbell, Chair, Eastside Human Services Alliance/Deputy Director, Friends of Youth  
Doreen Cato, Executive Director, First Place School  
Marty Chakoian, Interim Director, Department of Information Technology, City of Seattle  
Dini Duclos, Co-chair, So. King Council of Human Services/Exec. Dir., So. King Co. Multi-Service Ctr  
Lisa Duggins, representing families with children  
Barbara Gletne, Director, King County Department of Community and Human Services  
Joan Haynes, Division Manager, Public Health – Seattle & King County  
Bill Hobson, Executive Director, Downtown Emergency Service Center  
Janice Hougen, Co-Chair, Sea King Coalition for the Homeless/Compass Center  
Ruthann Howell, President/CEO, Family Services  
James Jackson, representing single adult men  
Venerria L. Knox, Human Services Department, City of Seattle  
Paul Lambros, Executive Director, Plymouth Housing Group  
Scott MacCormack, Downtown Seattle Association  
Doreen Marchione, Executive Director, Hopelink  
Tina Narr, Campus of Learners Foundation  
Stephen Norman, King County Housing Authority  
Linda Olsen, Executive Director, Eastside Domestic Violence Program  
Estela Ortega, Community Services Director, El Centro De La Raza  
Cynthia A. Parker, Director, Office of Housing, City of Seattle  
Ted Randall, representing single adult men  
Sue Sherbrooke, Deputy Director, YWCA of Seattle, King County, Snohomish County  
Doug Stevenson, Metropolitan King County Council Staff  
Christi Trapp, representing single adult women  
Karen Zammit, representing families with children

## **Safe Harbors Work Group**

Anne Snook, Family Services  
Anne Thomson, Teen Hope  
Bill Goldsmith, King County Department of Community and Human Services  
Bill Hallerman, Archdiocesan Housing Authority  
Bob Almquist, Plymouth Housing Group  
Bob Kubiniac, *Real Change*  
Carolyn Sundvall, City of Kent  
Charles Kueck, Peace for the Streets by Kids from the Streets  
Christi Trapp  
Conner Bennett Sharpe, Seattle Human Services Department/PRO-Youth  
Curtis Knight, Compass Center  
Dan Owcarz, Aloha Inn  
Daniel Malone, Downtown Emergency Services Center  
Debbie Clark, University of Washington  
Elaine Simons, Peace for the Streets by Kids from the Streets  
Emily Nolan, Crisis Clinic  
Erin Katz, Church Council of Greater Seattle  
Flo Beaumon, Aloha Inn  
Gail Turner, Columbia Legal Services  
Ginny Ware, New Beginnings  
Graydon Andrus, Downtown Emergency Services Center  
Humberto Alvarez, Fremont Public Association  
Joe Easterday, Seattle Emergency Housing Association  
Joel Estey, King County Veterans Program  
John Steetle  
Judy Summerfield, Seattle Jobs Initiative  
Karen Zammit  
Karina Luboff, Orion Center  
Kate Spelt, Low Income Housing Institute  
Katie Warner, Family Services Transitional Assistance Program  
Katy Thomas, Fremont Public Association  
Ken Tanzer, Downtown Emergency Services Center  
Kristin Schroeder, YWCA  
Linda Rasmussen, YWCA  
Linda Weedman, YWCA  
Margaret Smith, King County Department of Community and Human Services  
Mariah Ybarra, AIDS Housing of Washington  
Mark Dansby, Union Gospel Mission  
Marta Vega, El Centro de la Raza  
Maureen McCarry, University of Washington  
Mike Stanford  
Mohamed Aden, Muslim Housing Services  
Nancey Goforth, Health Care for the Homeless  
Richard Andrews, King County Department of Community and Human Services  
Reverend Rick Reynolds, Operation Nightwatch  
Ronni Gilboa, Low Income Housing Institute  
Shelle Crosby  
Susan Adams, Aloha Inn

Tamara Brown, Catholic Community Services South King County  
Tara Connor, Plymouth Housing Group  
Ted Randall  
Tom Richards, Fremont Public Association

