ANALYSIS OF FRIENDLY HOUSE IT SYSTEM

An Interactive Qualifying Project Report

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by

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ABSTRACT

Friendly House Inc., experiencing critical problems with a homegrown human management information system and stricter reporting requirements by supporters, required a new system to manage their clients and programs. Several industry standard alternatives, such as ServicePoint and ETO software, have been researched and a comprehensive assessment was performed on each. The outcome of our research and testing was similar to customer product reviews and ETO software outperformed ServicePoint to meet the needs of Friendly House Inc.

Acknowledgements

TABLE OF CONTENTS

Introduction

When we were introduced to the Human Management Information System (HMIS) of Friendly House Inc. (Friendly House), we found that there were numerous problems and that the system was in a state of disorder. In our evaluation of Friendly House's Information Technology systems we found many underpowered and overused elements in their system.

One instance of this disorder was how the computers in Friendly House's main office would have to power on in a certain order in order to use various network resources, such as a database centralized on their server as well as a shared printer. If the power on sequence was not done correctly, these resources would be unavailable to other users in the office. The computers themselves were only barely meeting requirements for running their applications and securing data.

The most important part of their Information Technology system, as well as the area in the most need of reorganization, was their client management system. For the past 10 years, this has been a Microsoft Access database. From our comprehensive analysis of this system we were able to identify many problems including:

1) Reporting on basic client demographics did not yield the same totals between two reports with similar outcomes but different break downs.

2) Existing entries into the system were overridden when new clients were added to the system.

3) No error checking was done on fields, which has resulted in incorrect reporting and problems with the lookup of a client in the system.

4) Checks were not performed on new clients to see if they already existed in the system.

5) The lookup of clients was a strictly name only search which must start with the last name. Each account that matched the search criteria needed to be verified that it was the desired account, which resulted in inefficiency.

6) Database tables, forms, and macros had been copied or duplicated on the backend of the system, and it was not possible to derive the schema of the system from the current state.

7) The company that created the system is no longer in business to make modifications or provide support.

The network itself was a patchwork of network wires, strung through the ceilings by various neighborhood volunteers, running to the server room. Very few of the lines had been professionally installed, and none of the network jacks and wires had been labeled.

The backup of the servers and the database was done without any knowledge of how to retrieve them if an error occurred. No notification was given when backups were completed or if they had been completed successfully. The current system is managed through a third party, who is the only entity with knowledge of restoring the Information Technology system. The tape backups were stored in a filing cabinet on site; none of the backups were stored off site to minimize the points of failure for data being lost.

After assessing Friendly House's current Information Technology system, we decided to investigate what solutions were available. We focused on fixing their most pressing needed, their client management system, without which management of necessary client information and reporting would be insurmountable. Friendly House has several different programs that they run, and we spoke with the heads of each to learn of their needs for a new system. A very flexible and customizable system was required to satisfy the needs of all the services provided. This included:

1) The ability to change inputs to the system based on the type of service.

2) The grouping of data, and the ability to report on that data through many different breakdowns.

3) The ability to report progress to supporters.

4) The ability to report how much money was spent on a particular service.

5) The ability to share and track notes between services.

We took these needs and researched alternative systems that would do what Friendly House required. Three systems were found that could possibly accommodate Friendly House's needs. The first two were found early in the project and were thoroughly analyzed. The third system was discovered in the last week of the project, and not much research has been dedicated towards how it would satisfy current needs.

Analysis of the Needs of Friendly House

Friendly House is in great need of an entirely new system, which must be flexible and customizable. The needs of each program that Friendly House runs are different and range from the basic intake and recording of data for an individual client and to case management. As each program intakes different data, it is necessary that the system have the ability to change easily. We decided that having extra data fields for a program when they are not necessary would be confusing for the people working in those programs.

Social Services

Case Work

Case work with individuals requires the system to be able to record many different values. The general intake for an individual includes a name, social security number, date of birth. Besides general information about a person, these programs also need the ability to record family members and to link people together within the system. Medical problems and allergies also need to be recorded in case there is an issue. Finally, the efforts and outcomes of the social worker and client must be recorded. Efforts and outcomes are very important to record as they help Friendly House to receive funding. As all of this must be reported to the supporters of these programs, the system must be able to generate reports based upon nearly any variable desired. But one of the most important requirements for the system is ease of use for the case workers. An interface which they can clearly understand and input the information required is needed to make this system user friendly for the case workers.

Housing

Housing must have multiple fields to record basic information and then have text fields where notes and reports can be placed. The notes include things such as what kind of housing the client is currently in – home owner, renting, transitional housing, etc. Their current address and past housing history would be included, if possible. Past housing history might include time spent at each location, reasons for leaving that location, and any incidents that may have happened. In addition, if they are receiving financial assistance case notes need to be recorded on their housing, such as domestic violence and the conditions of their housing.

Group Services

General Services

General group services, which Friendly House needs to record, include the number of people who needed food in a day or the number of children who came in for the after school program. Within group services, the intake for an individual is not necessary and most times not needed. The system must be able to report what occurred in a group over a period of time, perhaps a month or a year.

Food Services

Food services must be able to record and report on each meal provided. Friendly House provides two main meal services - daily meals and group meals, such as Thanksgiving or other special meal times. For daily meals, required information includes how many meals were requested by each site Friendly House serves, number of meals actually used, what was served, and, if possible, the cost and the nutritional breakdown of

the meal. Group meals are similar; the basic information the daily meals provide is needed, along with the supporters of the group meals.

Programs

Tracking of programs run, including but not limited to, home construction, community dinners, after school programs, and basketball programs is essential for Friendly House. Not only does this information need to be reported to sponsors on how their money is being spent and the amount of individuals the programs are reaching, but the information is also used so Friendly House can internally improve the level of service they are providing to the community.

Security

Friendly House's human services domain, by nature, contains very personal and sensitive information that should not be disclosed and in some cases is protected by federal law. Thus, they require a system that will securely store data, only allow it to be accessible to employees, and guard against other parties being able to access that data.

Reporting

The ability to report the recorded data in a logical manner is critical to the system. Reports must be flexible enough to be easily changed if a new variable is needed to report on. Data must be able to be easily grouped for reporting on groups of clients or the outcomes of group services. The ability to export the reports to different formats is also required so that they may be viewed on different systems.

Dependability

Friendly House client management system is essential to their daily workflow. Any downtime with this system means that client/service notes cannot be retrieved for their reporting needs, and more importantly, for their interaction with clients in the office. Examples of downtime of the system could be third party vendors experiencing either failures or slow system responsiveness or internal system failure of network connections or any of the client workstations. To combat these possibilities Friendly House needs a disaster recovery plans incase of a failure and system redundancy.

These needs for Friendly House were incorporated when evaluating the different management systems. A failure in any one of these categories is unacceptable not only to the customer of the product (Friendly House), but also because it limits the ability to help clients.

ServicePoint

Company Description

ServicePoint software was created by Bowman Systems to help organizations keep records of their clients and to generate reports based on this information. Bowman Systems creates mostly web based applications which are used for Consumer Information Management.

Product Description

The ServicePoint software is a web based application and has a Microsoft SQL database backend. The purpose of the software is to record clients' information for case management and generate reports based upon the recorded information.

Product Strengths

Besides being able to generate reports based upon clients' information, ServicePoint also has the ability to categorize reporting into groupings and to view data from other agencies using the software. ServicePoint has good general intake, and Bowman Systems is able to customize the web application nearly any way that the customer could want. There is some ability for the customer to also customize the software to their liking. ServicePoint has good reporting built in for reports such as the HUD report and high capacity for the customer to change the reports.

Product Weaknesses

There are some areas, such as group services, that ServicePoint does not cover as thoroughly. There is no ability, currently within the system, to accommodate group

services. This also affects the management of different programs and reporting on group services and programs. However, Bowman Systems can customize the system to include the ability to accommodate group services. Furthermore, the web navigation of the system is not the most intuitive; there are many menus and it's easy to miss something.

Evaluation of ServicePoint

As we evaluated the software for Friendly House's needs, we found that the default intake needed to be modified. Trying to customize the intake form was not very easy to do. The navigation to find what was needed was not the easiest to understand, and then getting exactly what was required into the right spot took some time. The ability to track clients once they are in the system and to set goals, however, is quite satisfactory. Unfortunately, the user cannot track case notes if any are attached to an individual. Group services, as mentioned above, is almost none existent within the system. Friendly House has many group services programs under its leadership, and the ability to monitor them is necessary.

The next category we looked at was reporting. ServicePoint has very good reporting ability of the reports already within the system, such as the HUD report. The ability to generate reports based upon a certain variable was also good. The lack of group and program services intake also, obviously, affected the ability to report on them. Reporting is an important factor in deciding what Friendly House needs. Without the ability to report to its supporters, Friendly House will be unable to secure funding and continue to help the community.

Cost is another factor that we looked at. The cost of ServicePoint is roughly calculated to be $17,000 for the first year, using the numbers of users Friendly House has

supplied, and $7,000 each year after that. Customizable pieces that can not be done by the

user and must be done by Bowman Systems would also cost extra.

Social Solutions

Company Description

Social Solutions is a small, non-profit, 12 member company located in Baltimore, Maryland. Most of their employees have had many years of experience in the social service field before joining the company. Founded in 2000, Social Solutions has grown to over 300 customers across the United States and Canada.

Product Description

ETO software, made by Social Solutions, is a flexible, full-featured, web-based tool with a focus on relating efforts to outcomes. Providing many different levels of access from Site Administrator to regular users, ETO sets up strict policies to keep data from unauthorized personnel. On the web-based front end, ETO has a minimalist design to keep things as simple as possible so as not to overwhelm a user. Using the software itself is confusing at first, but the layout is intuitive so the user can eventually figure things out for themselves. ETO relies on ASP, application service provider, for web page generation and Microsoft SQL for the backend database. Using available market components, Social Solutions cuts down on costs and overhead. ETO has made itself incredible flexible allowing a user to add new forms and intakes quickly and efficiently. With case management, ETO keeps track of the client demographics, all records associated with the client, management of individuals and groups, outcome tracking, as well as assessments and has multiple reporting abilities. ETO also keeps track of the organizational personnel and their efforts with clients. Finally, ETO keeps track of supporters, whose donations and resources are critical for an organization. Along with

Crystal reports for multi-document format generating ability, Social Solutions has made a solid product for the social service industry.

Features

- Broad Customizable Capacity

- Uses Crystal Reports for Multi-Document Format Reports

- Efforts to Goals

- Case Management

- Outcome Management

- Donator Management

Product Strengths

ETO's main strength is its customizability. The software is able to conform to the needs of many different organizations with many different needs. From simple add-ons to demographics to more complex report generating, it allows for the flexibility demanded by Friendly House's multiple groups. Also, the interface of the web-based software only shows what a user is currently working on, without any unnecessary clutter.

Product Weaknesses

Although ETO has many functions, it is lacking in the ability to add on such things as tracking available beds if a program provided sleeping quarters for their clients.

Evaluation of ETO Software

In the evaluation of ETO software we had both a demonstration of the capacities from a company representative as well as semi-restricted access to the demo. In the

demonstration given it was shown how easily an experienced person could change the software and efficiently utilize features. In our own use of the software we were unable to access many features due to restrictions, and, being untrained, were more prone to take longer to access features. With a professional interface and efficient workflow, ETO software seemed well designed for the end user.

ETO software met all needs that Friendly House required and provides the flexibility to change as Friendly House requirements change. Nothing was found that Friendly House wanted that could not be accomplished with the software.

Comparison of ServicePoint and ETO Software

Graphical Analysis

After using both systems and testing them to the features we were able to access as well as those we viewed in a Live demo of each application we created a matrix that identified Friendly House's needs on the left hand column and the two applications across the top.

Under each application there are 3 columns which represent 3 categories that could possibly satisfy the need, those columns represent:

- Base – This is a rating of the ability for the application to satisfy the corresponding need without any client or vendor modifications. This is commonly referred to as how the system works "Out-of-the-Box". This column is weighted the most at 60% of the total rating for the available categories of that need. This is weighted the most because Friendly House wants a product that has the scheme already in their system to handle their needs.

- Custom Client – This is a rating of the ability of the client to modify the system to either meet the need or modify the base of the need. This column is weighted at 30% of the total rating for the available categories of that need. This need was weighed the second highest since the ability for a user to customize features without vendor intervention is essential to any changing business.

- Custom Vendor - This is a rating of the ability of the vendor to modify the system to either meet the need or modify the base of the need. This column is

weighted at 10% of the total rating for the available categories of that need. This need was weighted the least since vendor intervention to meet the need of the client is not desirable because it adds on extra costs on top of licenses.

The scale used from 0 - 5 and blank. 0 is the lowest possible rating indicating that the application does not meet the need in that category, 5 is the highest for a category that completely meets a need, and a blank cell is used when the category is not applicable for that need. The total column represents the total for that need in all 3 categories based on a percentage of the total available points for that need.

The following page contains the data of our rating for the two applications, and following that is the graphical analysis of each of the needs. This graph clearly shows that ETO software received a higher rating in meeting each of the needs of Friendly House.

Based on our analysis of the data we see that much of Service Point's lower ratings are due to two factors:

1) Their application is designed for shelters rather than settlement houses such as Friendly House, where as ETO software base product with no modifications meets all the needs.

2) Many of the customizations to ServicePoint require the vendor to intervene lowering their rating even more, whereas almost every aspect of ETO software was customizable by the client.

Application Analysis Data
Based on a scale from 0 - 5 rating ability for that category to satisfy the need.

Needs	Base	Custom Client	Custom Vendor	Total	Comments (Service Point)	Base	Custom Client	Custom Vendor	Total	Comments (ETO Software)
				Service Point					**ETO Software**	
Intake				**74.00%**					**76.67%**	
General intake (Fields)	5	3	4	86.00%	Limited to additional assessment info.	5	5	5	100.00%	Extensive intake of client.
Health Information (Fields)	2	3	5	52.00%	Covers a large base but information included is sparse.	0	4	5	34.00%	No base health information but extensive ability to customize.
Family information (Linking)	5	0	3	66.00%		5	0	3	66.00%	Linkage is static.
Error Checking (Field input)	3			60.00%	There is only a minimal amount of error checking done.	5	0	0	60.00%	
Track Changes	4			80.00%	Not much to customize.	5			100.00%	
Custom Instake		5	5	100.00%			5	5	100.00%	
Case Work				**44.00%**					**69.33%**	
Track Referrals	4	0	0	48.00%		5	0	0	60.00%	
Set Goals	5	0	0	60.00%		5	3	5	88.00%	
Case Notes	2	0	0	24.00%	Case notes cannot be tracked.	5	0	0	60.00%	
Group Services				**18.00%**					**76.00%**	
General Fields	0	2	3	18.00%	Scheme not inherent in the system.	3	5	5	76.00%	
Food Services				**18.00%**					**76.00%**	See group services.
General Fields	0	2	3	18.00%	Scheme not inherent in the system.	3	5	5	76.00%	Group service just specialized.
Meal Nutrition	0	2	3	18.00%	Scheme not inherent in the system.	3	5	5	76.00%	Group service just specialized.
Meal Count	0	2	3	18.00%	Scheme not inherent in the system.	3	5	5	76.00%	Group service just specialized.
Programs				**22.00%**					**94.67%**	
General Fields	0	2	5	22.00%	Scheme not inherent in the system.	5	5	3	96.00%	
Program Notes	0	2	5	22.00%	Scheme not inherent in the system.	5	4	4	92.00%	
Track Attendance	0	2	5	22.00%	Scheme not inherent in the system.	5	5	3	96.00%	
Reporting				**45.90%**					**76.20%**	
HUD Reporting	5	2	5	82.00%	Does a good job in storing HUD codes.	5	0	5	70.00%	
Statistical Reporting	2	4	5	58.00%		5	5	5	100.00%	
By Program	0	4	5	34.00%	Must customize to report data.	5	4	5	94.00%	
By Gender	0	4	5	34.00%	Must customize to report data.	0	5	5	40.00%	
Group Services Reporting	0	3	5	28.00%	Must customize to report data.	5	4	5	94.00%	
Food Services	0	3	5	28.00%	Must customize to report data.	5	4	3	90.00%	
Track Funding	0	3	5	28.00%	Must customize to report data.	0	5	5	40.00%	
Audit Reporting	5	0	5	70.00%	Not customizable.	0	4	5	34.00%	Every field is audited.
Report Export	0	2	0	12.00%	Export is limited to a CSV file.	5			100.00%	
Custom Reporting	4		5	85.00%	Reporting is limited by the type of application used.	5		5	100.00%	
Application				**61.67%**					**86.67%**	
User Licenses			4	80.00%				5	100.00%	Support/web hosting/upgrades included.
Navigation			2	40.00%	Too many tables causing problems with data grouping.			4	80.00%	
Application Licensing(cost)			3	60.00%	On par with competitor.			3	60.00%	On par with competitor.
Support Cost			1	20.00%	Exteremly high cost, minimum $3,000 per year.			5	100.00%	Included in license fees.
Upgrades			2	40.00%	Last upgrade had issues for customers.			4	80.00%	Free.
Training			4	80.00%	On par with competitor			4	80.00%	On par with competitor.
Data Recovery			5	100.00%				5	100.00%	Extensive backup scheme.
Custom Coding			2	40.00%				4	80.00%	Large ability to customize and price is reasonable.
In Application Help			5	100.00%	Help is pretty nice and fast.			4	80.00%	Simple PDF.
Speed			2	40.00%	Slow and inaccessable at times.			4	80.00%	
Security			5	100.00%	Security is extensive.			5	100.00%	Everything is audited and site is secure.
Code Escrow			2	40.00%	There is a cost associated with this.			5	100.00%	Can be/is written in the contract.

Applications abilities to meet Friendly House needs
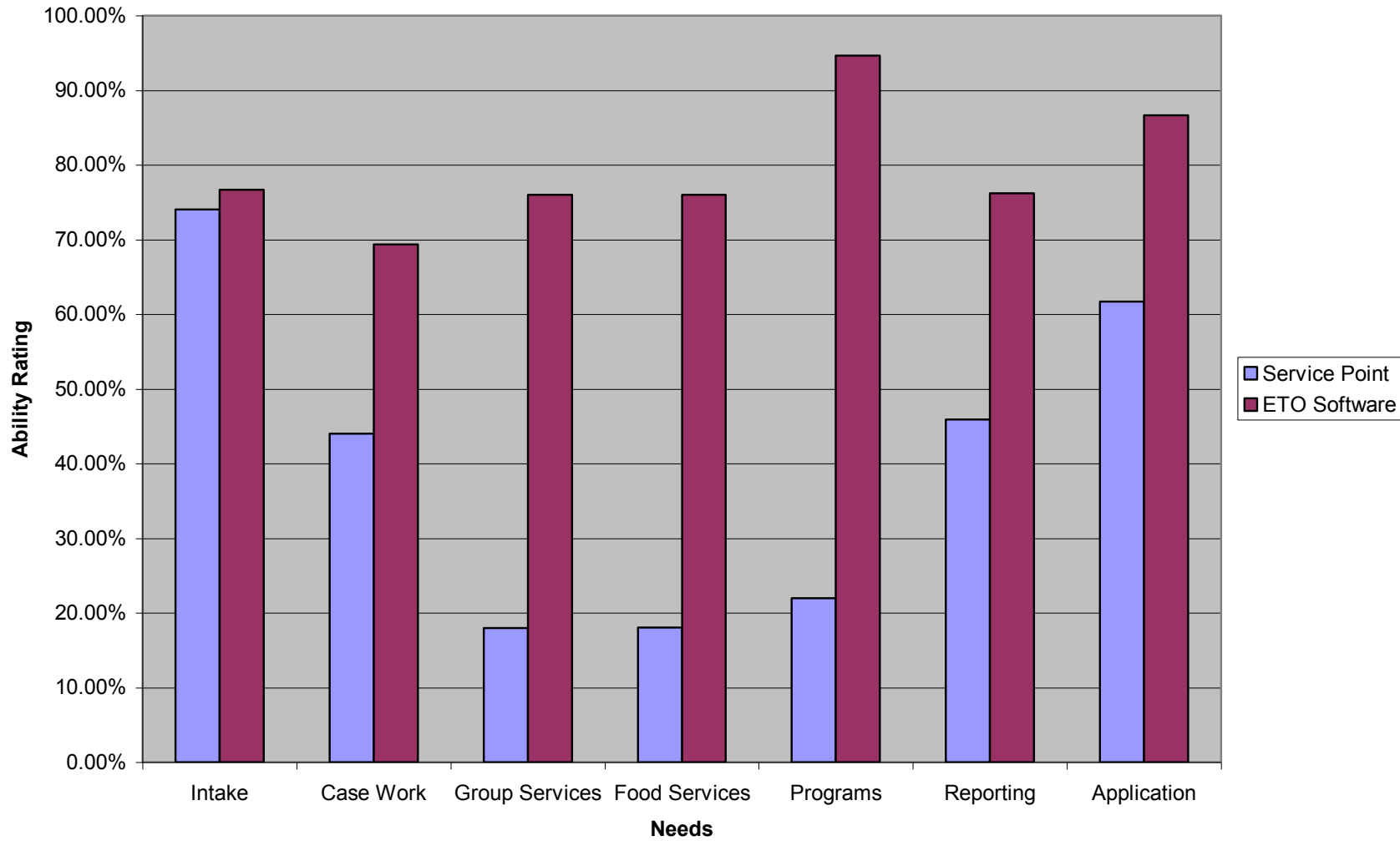
Cost Analysis

The cost for both applications is very different, and ranges from $1,300 for ETO software and $7,000 a year for ServicePoint. Below is the cost analysis we did for each of the applications. ETO keeps a small overhead allowing them to keep their cost to the customer as low as possible.

ETO Software	One Time	Monthly	Annual	Running Total of Annual Costs				
				1st year	2nd year	3rd year	4th year	5th year
Software License Fees	$ 8,160.00	$ -	$ -	$ 8,160.00	$ 8,160.00	$ 8,160.00	$ 8,160.00	$ 8,160.00
User Licenses	$ -	$ -	$ 1,320.00	$ 1,320.00	$ 2,640.00	$ 3,960.00	$ 5,280.00	$ 6,600.00
Training	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Data Migration	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Digital Report Reproduction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Feature Development	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total One Time Fees	$ 8,160.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Monthly Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Annual Costs	$ 1,320.00	$ -	$ 1,320.00	$ 9,480.00	$ 10,800.00	$ 12,120.00	$ 13,440.00	$ 14,760.00

Total Cost 1st year	$ 9,480.00
Cost Second Year	$ 1,320.00
Cost Third Year	$ 1,320.00

Service Point	One Time	Monthly	Annual	Running Total of Annual Costs					
				1st year	2nd year	3rd year	4th year	5th year	10th year
Software License Fees	$ 7,295.00	$ -	$ -	$ 7,295.00	$ 7,295.00	$ 7,295.00	$ 7,295.00	$ 7,295.00	$ 7,295.00
User Licenses	$ 2,475.00	$ -	$ -	$ 2,475.00	$ 2,475.00	$ 2,475.00	$ 2,475.00	$ 2,475.00	$ 2,475.00
Support (Annual)	$ -	$ -	$ 3,000.00	$ 3,000.00	$ 6,000.00	$ 9,000.00	$ 12,000.00	$ 15,000.00	$ 30,000.00
Training	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
AIRS Taxonomy License and Book Fee	$ -	$ -	$ 250.00	$ 250.00	$ 500.00	$ 750.00	$ 1,000.00	$ 1,250.00	$ 2,500.00
Database hosting	$ 300.00	$ 300.00	$ -	$ 3,900.00	$ 7,500.00	$ 11,100.00	$ 14,700.00	$ 18,300.00	$ 36,300.00
Total One Time Fees	$ 10,070.00	$ -	$ -	0	$ -	$ -	$ -	$ -	$ -
Total Monthly Costs	$ -	$ 3,600.00	$ -	0	$ -	$ -	$ -	$ -	$ -
Total Annual Costs	$ -	$ -	$ 3,250.00	$ 16,920.00	$ 23,770.00	$ 30,620.00	$ 37,470.00	$ 44,320.00	$ 78,570.00

Total Cost 1st year	$ 16,920.00
Cost Second Year	$ 6,850.00
Cost Third Year	$ 6,850.00

Conclusion

Based on our analysis of both applications we found that ETO Software (Efforts to Outcome) was best suited to the needs of Friendly House than the competitor ServicePoint was. This was largely due to ETO software being designed specifically for organizations such as Friendly House, where as ServicePoint is more suited for Shelters and shelter management.

Another factor in our decision was from conversations with Bowman was issues in speed, they were currently working to make their system faster, to handle a larger base of clients, but Friendly House is not looking for an application that will meet their needs in the future. They are looking for one they can use today.

The final deciding factor was the cost of both of the applications. ETO software is the less expensive of the two applications, with lower user licenses and support costs. They are able to keep their costs low by hosting their application with a third party, whereas ServicePoint is hosted directly by Bowman Systems.

Although our decision is only based on the two applications discussed in this report, our analysis would not be complete without the analysis of all possible applications. In the last week of the project, another application was discovered that might also meet the needs of Friendly House. With too little time left, an analysis of the application by Foothold Technology was not possible, but it should be completed before a final purchase decision is made.