

**Information Systems Management
Course 95-822**

Spring 2006

Final Consulting Report

Housing Alliance of Pennsylvania

Meghna Shah

Housing Alliance of Pennsylvania

Executive Summary

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Community Partner, Ronell Guy

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Organization:

“The Housing Alliance of Pennsylvania was formed in 1985 for the purpose of ensuring that all Pennsylvanians, particularly those who have low income, have access to decent, safe and affordable housing. It is a membership organization with over 300 organizational and individual affiliates statewide who advocate for the affordable housing needs and interests of rural, urban and suburban communities within Pennsylvania.” [Source: <http://www.housingalliancepa.org/>]

Ronell is the organizer at the Pittsburgh office. She works with the other employees to voice the concerns and needs of the homeless in the Pennsylvania region. She is continuously researching and monitoring various housing policies at the state and federal level to alert and inform members about the existing threats and opportunities.

Scope of work:

The scope of work included the establishing of an internal network that would enable information and resource sharing. This would allow employees to have access to shared folders over the network and share resources such as the printer and the scanner over this internal network. An external network using a Virtual Private Network (VPN) would allow the employees to access the company database

directly thus eliminating the need for manual updates. To facilitate faster information retrieval, employees were trained to better organize data on their computers.

Outcomes:

- Shared Database for the increased efficiency in access and modification of data

A Virtual Private Network between the company sites was deployed using Windows 2000. Ronell can connect to the private network at the main office across the internet through this remote access VPN connection to access the company database.

The extensive training on how to connect and access the database and the user guides and troubleshooting logs that were documented during consulting task ensure the sustainability of this task

- Access to the printer, new fax and scanner machine and an organized file structure.

The shared access to the printer and scanner has helped increase the organizations capacity. The scanner machine is also used to transfer financial receipts to the main office. An organized file structure allows the employees to retrieve information faster.

This task is sustainable due to the troubleshooting logs that have been documented by the employees themselves. The new fax machine is of the desired print quality and speed. New technology and new machines has helped Housing Alliance to build their technology capacity.

Recommendations:

- Upgrade and maintain the company web site in order to provide more interactive organization information.

The web site is the face of the organization for the outside world. More visitors equate to more members which this member organization build a stronger network of resources.

- Set up collaborative software called 'Wiki' for everyday interaction among the three sites.

A collaborative tool is set up to allow the employees to better communicate their ideas and track progress on projects. It is used to transfer information on a timely manner due to the "instant" nature of this software.

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Meghna is a graduate student in Information Systems Management. She will be interning with Credit-Suisse as a Business Analyst this summer.

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I. About the Organization

Organization:

“The Housing Alliance of Pennsylvania was formed in 1985 for the purpose of ensuring that all Pennsylvanians, particularly those who have low income, have access to decent, safe and affordable housing. It is a membership organization with over 300 organizational and individual affiliates statewide who advocate for the affordable housing needs and interests of rural, urban and suburban communities within Pennsylvania.”

The Housing Alliance of Pennsylvania combines the individual views of its members into one statewide voice to promote and increase resources that foster affordable housing. Inadequate housing impairs healthy child development and causes problems related to homelessness. The organization is working towards solving these problems. They do so by monitoring various housing policies at the state and federal level, alert and inform all their members and the community of the existing and potential threats and opportunities.

Facilities:

Housing Alliance of Pennsylvania has an office on 5877 Commerce Street, Room 203, Pittsburgh, PA 15206. They have three desktop computers used by the three employees. My Community Partner, Ronell Guy travels through the week to the offices in Glenside and Harrisburg and thus uses her laptop frequently on the move. The office is always open to allow access to the other organizations in the same building. They use the printer and the computers to access the internet. They invariably download files with a virus which has corrupted the external hard drive. Thus the physical security of the resources in the office as well as the data security is of particular concern to Ronell.

Program(s):

“They are attentive to the need for affordable housing community statewide. They monitor state and federal housing policy and funding; alert their members and the broader community to opportunities and threats. Besides conducting research and policy analysis they provide information and raise awareness about the need for affordable housing through their newsletter and reports. In 2004, The Housing Alliance worked for the New Leadership at the State for Affordable Housing, established the first-ever Governor’s Office of Housing and Community Revitalization, organized residents to save

600 units of subsidized housing that would otherwise have been lost and successfully worked to sustain for federal funding. The Housing Alliance has brought new expertise and energy to critical housing issues through successful research, education and outreach by promoting innovation, recognizing leadership, bringing people together through the Second Annual Statewide Conference on Vacant Property.” [Source: <http://www.housingalliancepa.org>]

Staff:

The organization has three offices statewide. The main office is at Glenside and the other one is in Harrisburg. There are two employees at the Pittsburgh branch of Housing Alliance. Currently each office has a database that stores member and legislature personnel information. They use the computers to update these databases, research on legislations, keep track of financial records and ongoing events and to communicate with the other two offices. There are two employees at the Harrisburg office and three at the Glenside office. Tim is the external technical manager for Housing Alliance. My Community Partner travels three days a week to the other two offices.

Technical Environment:

The Pittsburgh office has three desktop computers. Each computer is connected to the internet through a LAN connection. There is one printer in the office that can be accessed by all the three computers but only when the main computer is switched on. [Appendix 1] There is one external hard drive that has all the important financial records and is connected to this main computer. This computer is accessed by the organizations in the building. They do not have a separate account and access the same information as do the employees. Some downloads have corrupted this drive and is now inaccessible. They haven't cleaned out the virus from the external hard drive as yet and refer a back-up CD that has all the data, each time someone needs to retrieve that information. There is a 5 in 1 machine that is primarily used as a fax. This machine is extremely slow and non-productive. Database updates from the main office are done via email and phone. The computers are connected via a LAN but no internal sharing of files and database is enabled. There is no external network that connects the three offices for easy sharing of files and simultaneous access to the main office database.

Technology Management:

Currently, technology is used to transfer database information via emails. The employees manage the databases in Microsoft Excel and Microsoft Access. One of the employees, George at the Pittsburgh office is 60 years old and although he is extremely enthusiastic to learn new technologies he prefers technology that is easy to learn. The main office and the Harrisburg office send updates via email. They report problems to Tim, the external technical support person. Due to the fact that he is mostly at the main office he is not always available at the Pittsburgh office. Thus, operational tasks such as backing up of critical data, installing and updating software is done by Ronell independently. There is no common technology management within the organization.

Technology planning:

Each office is responsible for its own Technology Planning. Purchase decisions are made by Ronell based on her requirements. On one occasion they did attempt to set up a network between the three

offices but it failed due to lack of initiative and maintenance. There is one technical support person for the three offices who is mainly present at the Glenside office. They do not have a formal technology plan. Tim wards off all fire as and when he encounters them.

Internal & External Communications:

Internally the Pittsburgh office does not share any information or resource. The printer is accessible only when the main computer is connected to it and the scanner is accessible only from Ronell's Computer. The external hard drive is corrupted and thus is inaccessible from the main computer. There is no internal network which would allow resource and information sharing. Their communication internally and externally is through the web (internet). The main office sends information and updates via phone and email. They have a website, www.housingalliancepa.org, which was recently handed over to an external agency for updates, maintenance and re-structuring.

Information Management:

The organization stores the member information in Microsoft Access or Microsoft Excel databases. Past financial records in Microsoft Excel, are stored on an external hard drive that is inaccessible. Thus the information is now available only on a back-up CD. Information on members, their accounts, the legislative information and financial records are important for this organization. There is thus a good amount of paperwork when dealing with legislations and there is a need for it to be stored electronically. Information flows among the three offices with regular updates from the main office done manually via email. Ronell has to send her financial records monthly to the Glenside office and would thus like some electronic way of doing so rather than having to mail it.

II. Scope of Work

Task 1:

To establish an internal network that enables information and resource sharing.

Description of the problem:

One of the main problems faced by the Pittsburgh office was the lack of internal communication within the office. There are three computers that connect to each other via internet. The employees only shared and transferred information through email and did not take advantage of the shared folders over the network. Although, email is one of the most convenient and fastest way to share information, having a shared folder to access information eliminates the need for daily transfers and updates.

There is one printer and one 5 in 1 machine which serves as the fax, scanner and copier machine and can be accessed only from one computer. This increased the dependence on one machine and queues up the tasks. The printer is connected to the main computer (which is the printer server) and George needed to re-install the printer each time he wanted to access it. The 5 in 1 machine was extremely slow and the print quality was poor as it was almost 9 years old. This in turn affected their mission as it was preventing them from sharing important information efficiently. Decisions were being made with incomplete data due to the various channels it has to flow through.

Approach:

After talking to the employees (i.e. with Ronell and George), this is the approach that I have followed

1. Had a meeting with Ronell and George to clearly understand their technology needs. My initial talks gave me a rough structure and the following detailed talks helped me add more definition to identifying the key resources that needed to be shared and the flow of information within the office. The outcome of this step was a detailed flow chart which was used as a reference throughout the consulting task.

2. The three computers are connected to the internet through a local area network (LAN). Thus, making shared folders that are available to all over the network has helped employees better share their information.

3. Together with George and Ronell, I identified the information that needed to be shared among the office so that it could be made available in the shared mode over the LAN.

4. Enabled the printer such that it is accessible from all the computers. The printer is on the network and so is George's computer. Thus, this step will include the reinstalling of the printer on George's computer so that he does not have to re-install the printer each time he wants to print.

5. Train the employees to understand how to enable the sharing of folders (menu options in the folder)

6. Document the entire process for easy look up in the future should some problem/ technical glitch arises.

Impact on the organization:

This task will definitely have a good impact on the organization. It will enable resource and information sharing within the Pittsburgh office in a more efficient manner which will allow for an effective flow of information. Although there are just three employees at the moment, this task will be indicative of the potential technology growth the organization can venture into in the future. Having more effective means of transferring data will motivate the employees to extend and expand the ways in which technology can be used for faster information exchange. It allows the employees to share the key data and thus provides better information management and fosters a better technical environment. The thought that the employees in the Pittsburgh office will put into identifying the information that needs to be shared will help plan and manage their information better and thus will provide an effective means for internal communication. This will give more structure to the information within the organization and thus better arm them for all their external communications.

Feasibility:

This task is feasible within the time frame of this consulting project. Ronell and George are very excited about this prospect as it will enable information sharing. This solution to enable the shared folders is easy to maintain and requires minimal training which will be provided during set-up. Thus it will be sustainable even after the consultant leaves.

Risks:

One major risk is that of decreased initiative of the employees. Though the technology in itself does not require any maintenance, the employees may not be consistent with sharing information (i.e. enable shared access feature on their computer). Since, they have been manually sharing and updating information for so long they may not be very motivated.

Task 2:

To enable an external network between the three offices

Description of the problem:

Currently there is no external network that connects the three offices, i.e. Pittsburgh, Harrisburg and Glenside. There is regular exchange of information among the three offices. The main office at Glenside controls and maintains the database and periodically sends it in Microsoft Excel format to the offices in Pittsburgh and Harrisburg through email. This is a Microsoft Access database that stores member and legislature personnel information. The updates made to this database are received via email or phone. Each office had to rely on the main office for updates and reliability of the data. To make changes to an existing record, the employees had to notify the main office that would then make the desired change. This put constraints on the database usage at Harrisburg and Pittsburgh as they could not modify the Database as per their convenience. This led to the inconsistency of the databases at the three branches. This is of concern to the organization as all their transactions and member

interactions are dependent on correct information. Inconsistency in the data leads to a delay in decision making which hurts the organization and their mission.

Approach:

1. Talk to the employees at all the three offices in order to find out the information that needs to be shared. Analyze the data requirements and the frequency of database access and updates. The outcome of this step is a detailed flowchart that describes the information flow within the entire organization
2. Deploy a Virtual Private Network using Windows 2000, where Ronell (the remote user) can connect to the private network at the main office across the internet through a remote access VPN connection. Involve Ronell and the external technical support person Tim to ensure the configuration and set up as well as the maintenance and problem handling in the future.
3. The server at the main office will be configured as the VPN server and the client configurations will be done at the machine in the Pittsburgh office.
4. The employees at the three offices will be trained to connect to the main office network using VPN.
5. Document the process and have manuals readily available to the employees for future use.

Impact on the organization:

This will have a positive impact on the organization. The three offices will be better connected with each other and the need for manual updates will be eliminated. The shared database will allow for faster and more efficient way of sharing information and any changes and updates made will be available on the server immediately. Thus all the offices will see the change at the same time and thus redundant information flow is eliminated. This not only saves a lot of time but also allows the organization to use all the key shared data to make better and more informed decisions when contacting members, donors and legislature personnel. The set up of a new server will enable shared access of information thus eliminate redundancy in the process. The employee involvement in the process will give way to realization and responsibility towards a technology plan among the organization which will help them better organize their information and resources.

Feasibility:

This task is achievable within the given time frame. An online server can be set up at a minimum cost from their service provider. A four week practical training would be adequate to verse the employees with different features and options available with the online server. The work is sustainable after the consultant leaves as it is a one-time set up.

Risks:

One of the major risks is that an attempt was made in the past to set up an external network that links the three offices but the lack of motivation, initiative and technical support led to the failure of the project. Thus the employee involvement and understanding of the technology is important to ensure success. Ronell is more eager and ready to make this project work this time.

Task 3:

Help organize data on the personal computers

Description of the problem:

The files and information on Ronell's and George's computer are not organized. Files are stored randomly without proper naming and directory structure. There is a substantial amount of information handling within the organization and thus George and Ronell receive a large number of emails everyday (almost 20-25 emails on an average with attachments). These attachments are stored on the desktop without proper naming which makes information retrieval difficult and leads to increased search times for both of them. Important information is mixed up with other data which leads to delay in information sending or decision making. The long search process causes frustration and leads to an unproductive environment.

Approach:

1. Meet with Ronell and George separately to understand the kind of folders and directory structure they need.
2. Show them how to make folders, cut-copy-paste, drag and drop files. Train them with a few and let them do the rest.
3. Organize their computers to enable convenient access and intelligent information storing.

Impact on the organization:

This will indirectly benefit the organization as the employees will be more organized and the information will be easily and readily available allowing for faster and efficient access. This will help the organization achieve their mission as they will be better armed to access the key data needed to make decisions. It will lead to decreased frustrations and lesser search times thereby increasing productivity among the employees and thus benefiting the organization as a whole. With the proper hierarchy of folders, backup is much easier. One risk is the decline in the initiative and motivation on George and Ronell's part. They may take the time out to organize their files on the folder but may not continue doing so in the future.

Feasibility:

This task is achievable within the given time frame. George and Ronell are very motivated and interested in knowing how to better organize the files on their computer. They were keen on knowing various short cut keys as well. The only resource required is an interest and motivation on behalf of the employees which is abundantly available. The task is sustainable after the consultant leaves with the help of documentation and user guides.

III. Outcomes and Recommendations

Task 1: Centralized database to enable shared access for multiple sites

Housing Alliance of Pennsylvania works to meet the housing requirements of people with low income. Originally, the database at the main office in Glenside was unavailable for direct access to the other two offices. The database was transferred on a Microsoft Excel sheet and emailed to the employees as and when the need arose. A centralized database with shared access from the three sites has improved efficiency by decreasing the response time and has increased productivity by allowing members to access common information and expedite their daily transactions. They can now access information simultaneously as well as make modifications and updates. This saved time in sending emails back and forth with modified information which in turn improved the efficiency of the employees.

Outcome 1: Shared Database for the increased efficiency in access and modification of data

Problem:

Originally, the Pittsburgh office did not have direct access to the main database at the Glenside office. It was sent periodically by the main office in Microsoft Excel format. The regular exchanges of this information database (almost thrice a week) among the offices, made it time consuming and inconvenient for Ronell. She could not make direct modifications and had to rely on the main office for getting timely updates. The accuracy of the data was dependent on the correct updates and there was a risk of inconsistent and incorrect flow of information.

Solution:

Housing Alliance of Pennsylvania employees can now access the database at the main office directly. This was done by implementing a Windows 2000 Virtual Private Network between the company sites. The machine at the main office is configured as the Server and the machine at the Pittsburgh office as the client by the external technical support person Tim. Ronell and George are trained on how to connect to the VPN as a remote user. This now allows them to access the database directly. Detailed documentation is available that has troubleshooting information.

The shared access to database and modification rights on its data has greatly increased efficiency by reducing the response time of queries. The database is no longer converted to Microsoft Excel files and emailed to the employees. Thus, there is no dependence on email updates which ensures data consistency. Accuracy of data is observed from the reports that can be easily generated by any employee directly from the access database. These reports circulated bi-weekly, ensure that the data entered or modified by any employee is consistent with what the others have. This ensures that wrong data has not been added. This is essential, as now all the employees have access to the database and its accuracy has to be ensured.

Sustainability:

This is an effective and sustainable solution as a technical support person is assigned at the main office. He monitors and ensures the smooth working of this arrangement. There is a unanimous need among the employees to have shared access to the database which ensures that they will be motivated to continue using this technology. The Virtual Private Network is configured and the employees are well trained on how to access it. The convenience of direct access and improved query response time is helping them make faster decisions so as to expedite their daily transactions. The training program carried out in the last month ensures that the employees are aware about the various features of the database that they can now directly access. They now know how to generate reports and make modifications without conflicting with other updates. There are user guides and documentation that was done as part of the consulting task, which the employees can refer. A similar venture was implemented a year back and it failed due to lack of initiative from the employees using this system. The project was only in its initial stages the previous time when it was canned. This time the VPN is in place and the employees are using it daily. This ensures the motivation and sustainability of the solution.

Risks:

Shared access brings with it security concerns. The organization is closely knit where each employee is responsible for the efficient functioning of the organization and work collectively to achieve the common mission. However, giving authorization and access to all the employees can lead to malicious usage of data. Thus, it is important for the company to have policies regarding the usage of data. Currently this is not a concern as the organization comprises of 7 employees and thus everyone has access to the DB for adding new entries. However expansion of the organization can introduce and raise access rights and security concerns which is why one of my recommendations is to outline the access and modification rights of every employee as part of the company policy. Currently, only the technical support employee at the main office has access rights for deletion. He also cleans out any duplicate entries.

One of the important considerations in this implementation is that of continued motivation among the employees. Almost a year back a similar venture was carried out but the lack of technical support and employee motivation led to the failure of the project. To ensure that the database and the connectivity among the three offices is well maintained, a technical support person is now appointed. With the VPN in place, and the employee training on how to access the database, the risk is mitigated to a great extent. Ronell and the organization is more confident of the sustainability of this solution.

Expanded Capacity:

Quick and easy access to the member and legislative information facilitates faster decision making for this member organization with regard to who to contact and where to apply the relevant resources (financial and people). They rely on membership funds to organize statewide action and to educate legislators about the impact of proposed laws. The faster the access to important member information the more efficient and effective will be the organizations information sharing capacity. The Virtual Private Network has helped them extend their capacity to share information. The success of this project has motivated them to adopt technology in their day to day activities.

Task 2. To establish an internal network that enables information and resource sharing

Information exchange between employees, members and legislators is at the core of Housing Alliance. Resource sharing is the key to successfully accomplishing the mission of this member organization that works to provide housing to the ones with low income. One of the main problems faced by the Pittsburgh office was the lack of internal communication within the office. There are three computers that are connected to each other via a network. Information is however only shared via the email. The 5 in 1 machine that serves as the fax and the copier is extremely slow and the print quality is well below acceptable standards. The information on the desktop computers was stored haphazardly and required some organization that would facilitate faster and easier information retrieval.

Outcome 1: Access to the printer, new fax and scanner machine and an organized file structure.

The employees only share and transfer information through email and do not take advantage of the shared folders over the network. Although, email is one of the most convenient and fastest way to share information, having a shared folder to access information eliminates the need for daily transfers and updates.

There is one printer and one 5 in 1 machine which serves as the fax, scanner and copier machine and can be accessed only from one computer. The printer is connected to the main computer (which is the printer server) and George had to reconnect to the server each time he needed access to the printer. The 5 in 1 machine was extremely slow as it is almost 9 years old. The print quality of the fax and the copiers was below acceptable standards. Thus, Ronell and George always have to get copies and fax documents from someplace else. This is extremely time-consuming and important transfer of documents and the information sharing process is often delayed.

Another problem was in the way information was organized on George's and Ronell's personal computers. Data was stored randomly on the desktop and 'My documents folder'. This makes information retrieval extremely time consuming and tedious. Often important information was lost as it could not be found.

Solution:

The printer problem is solved and George now does not have to re-install the printer each time he re-starts his printer.

After carefully studying the 5 in 1 machine, Ronell and I agreed that it would be best to buy a new machine. This decision was largely based on the poor print quality of the machine. It was almost 9 years old which was showing on the speed with which it printed and faxed documents. Since Ronell uses the fax machine very often to share information with legislators and members the quality and speed are important parameters. Currently, Ronell mails all her financial receipts (collected over the month) to the main office at Glenside where all the financial and account transactions are handled. Since Ronell is always on the move between offices, meeting legislators and prospective members she often forgets to mail these receipts in. Thus, one of my recommendations to her was to automate this

process and eliminate the paper work involved. One can do this by installing a scanner where all the receipts can be scanned and emailed to the main office. This expedites the processing of the reimbursements and eliminates the need of mailing. This recommendation was well received by her and the organization. We thus purchased a new 4 in 1 machine has a fax, scanner, copier and printer. It is connected to the network and thus can be accessed by George and Ronell. This satisfies their need for a fax as well as a scanner to help Ronell better manage her receipts.

Extensive training sessions with both Ronell and George individually have helped them organize their data on their personal computers and email accounts. There are multiple folders on their computers that are named appropriately. They now easily access the file/document that they are looking for. Attachments are downloaded into the correct folder so as to allow faster retrievals. They better understand what information needs to be stored where and have learnt to throw away data they do not need. Teaching them few basic short cuts to cut/copy/paste/delete has given them more confidence with the computer and has made retrievals and searching very fast and easy. The folders available over the network allow them to access shared information.

Sustainability:

This task is very sustainable as George has the documentation of what to do when the printer gives him trouble with installing. He has to re-check his settings which are clearly documented (by him). The new machine has the print quality and speed that Ronell wants and is connected to the network which can be accessed by all the computers. This is sustainable as Ronell helped with the set up and has a manual that has a troubleshooting log. I helped them organize the data on their computers and email in the first few weeks and have observed them throughout the semester. They have religiously and regularly cleaned and organized their data which assures me that this task will definitely be sustainable.

Risks:

The risk with this task is that of employee motivation. To keep the data in folders and delete documents in a timely manner requires constant motivation and enthusiasm. Also, the new machine not performing up to the standards promised is a risk.

Expanded Capacity:

This task will enable the employees of Housing Alliance to better share the internal resources such as the printer, scanner and the shared folders made available over the network. This helps them build their technology capacity as they have shared access to the scanner/ fax / copier over the network and have an additional printer as well. Organizing their data on computers and email and learning short cuts is a small step but gives the employees tremendous confidence and makes them technical savvy which in turn helps build the capacity of the organization.

New vision for technology in the organization:

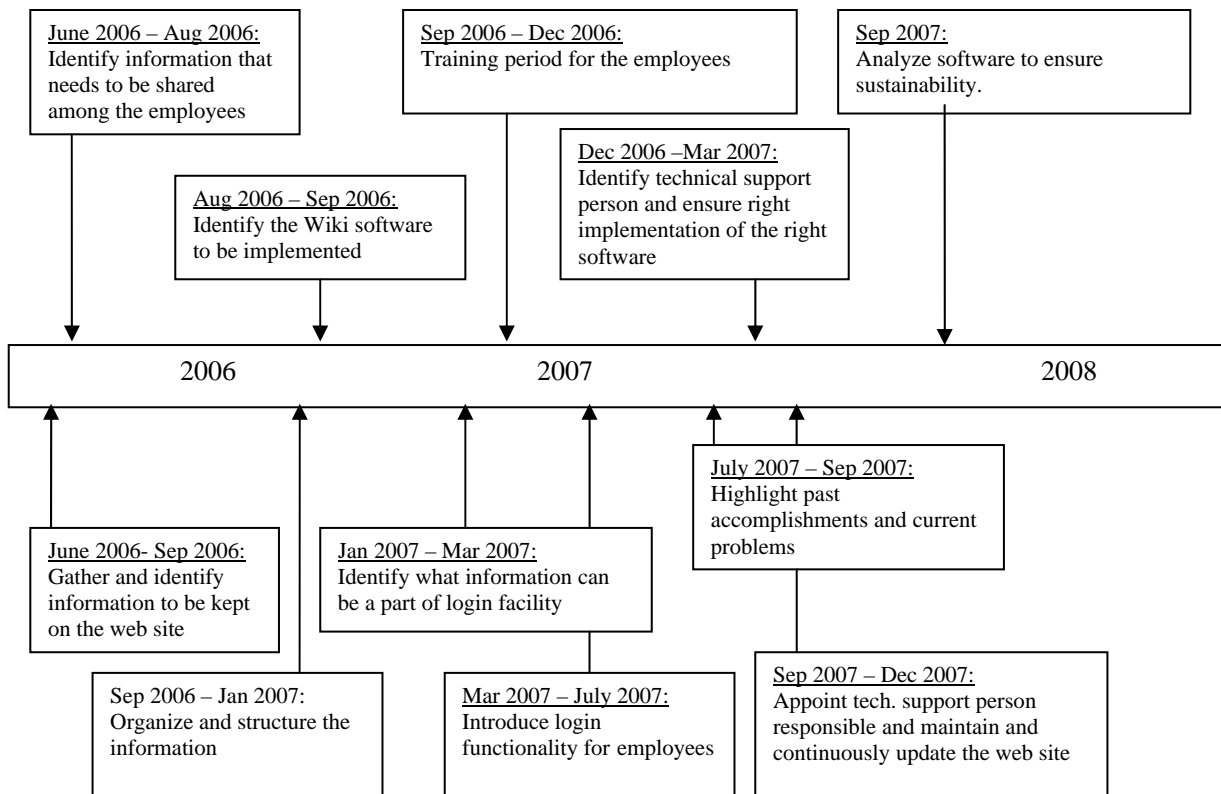
The success of tasks has given them the much awaited communication independence which enables the organization to work more effectively and productively. They now wish to delve into the further use of technology by making their news articles available online on their web site. They aim to make technology a part of their day to day transactions.

Recommendations:

Vision:

Currently, Housing Alliance of Pennsylvania is using technology to enables better communication and interaction within individual offices and among the three sites. They must continue using technology to sustain their current needs and must adopt new technologies to keep up with the changing trends. Technology should be an integral part of their day to day transactions. Having a web site with dynamic pages and more user interaction will help them better achieve their mission. The web site is their face to the outside world and they must use technology to leverage their image. Using collaborative software to discuss project updates and track individual progress is another step closer to expanding capacity for a broader technology vision.

Timeline:



Goals:

The following are the recommendations for Housing Alliance in order to help them reach their vision.

1. Upgrade and maintain the company web site in order to provide more interactive organization information.
2. Set up collaborative software called 'Wiki' for everyday interaction among the three sites.

Strategies:

Goal 1: Upgrade and maintain the company web site in order to provide more interactive organization information

Housing alliance of Pennsylvania has a decent web-site which has information on what the organization does and how one can help and make donations. The web-site currently has static pages and can be made more interactive. Since the web-site is the face of the organization to the outside world, it must be well kept and must be interactive and attractive enough to attract more people. Having access to organization information will make the web site and in turn the organization more attractive to potential members and donors. This is important as Housing alliance is a member organization and having more members equated to a better network which helps them better achieve their mission. Having login feature in one of the links on the web site can allow employees to access a secured part of the web site which can have the database and other important information. This feature ensures data accessibility even when the network at the main office is down.

Approach:

- Gather and identify the information that needs to be on the web site by closely studying the current web site and talking to employees and current members. This can be done via emails, bi-weekly phone conversations, company meets etc. There can be a feed back form that the current members can fill in which will provide important information on what the members would like to see on the web site. Web sites of other organizations with similar mission can be used as reference to differentiate what visitors like to see.
- Organize the data on the web site to facilitate better site navigation. This can be done by identifying the most visited links and pages and aligning the hyperlinks accordingly. The information flow must be intuitive which takes the visitor knows where he wants to go. For e.g. Past accomplishments must be connected to a link that speaks about what the organization is working on which goes to a "make a donation" link. This will be done by the person who is handling the web site updates. The navigation decisions can be made after employee and member feedback that will help gauge most accessed links and least visited links.
- Introduce 'Login Facility' for employees that direct them to a secure page that shows important member and legislative information. This can include the member database which can only be viewed by employees with the login password. This in turn also serves as the backup for the database at the main office. This will be done by the website support person once the partnering with the payment web site is finalized.
- Highlight past accomplishments and current problems with more photographs and links

- Appoint one employee (the technical support person) to be in charge of continuous updates and modifications to the web site.

Outcomes:

<u>OUTCOME</u>	<u>HOW IT WILL BE MEASURED</u>	<u>CURRENT MEASURE</u>
Employees can access the database from the web site if the network at main office is down	The employees can access database even when network is down. It can be measured by the independence they have from the main office server	Currently, the employees have to access the database at the main office and have to use the stored version of the database if the network is down
The organization can better communicate with potential members	Number of members visiting the web site (no of clicks) and the number of donations that are made via the we site	Interested members contact Housing alliance directly and make donations directly as well
All employees will be aware of the current affairs of the organization. Information flow among the organization is important and all employees will be better aware.	It can be measured by the response time to queries from potential members and the faster flow of information within the organization	The employees communicate via phone and email

Resources:

- Internal Resources:

The internal resources for Housing Alliance to better manage and update their website are outlined below. Interaction and communication to the outside world and among the employees in various branches is very crucial for this member organization

- Current web site will provide a structure on what needs to be added and what needs to be modified. It will help in studying the employee and member navigational comfort.
- Employees will be an important resource for identifying the information on the web site.
- Company data that will be a part of the updated/modified web-site
- Web maintenance and skills of the technical support person to ensure timely updates and relevant content on the web site
- Member database to contact them with feedback forms.

▪ External Resources:

The web site for this organization must be interactive and attractive so as to attract more members and build their network of resources. The following external resources will be necessary and important for the organization.

- Other organization web sites with similar mission
- Manmouth Housing alliance
<http://www.housingall.com/>
- Massachusetts Affordable Housing Alliance
<http://www.mahahome.org/index.html>
- Current members of the organization can provide useful feedback?
- Web sites that allow payment links

Student Consultant: the skills required are web site maintenance knowledge, good leadership and negotiation skills to monitor the partnership with the payment link website. These are the skills that are there in a student consultant as it covers most of the course work. This will not be at an additional monetary cost but the employees and the organization has to support the student and respect his knowledge and decisions.

Budget:

<i>Item or Procedure</i>	<i>Material Cost</i>	<i>Staff Hours</i>	<i>Consulting Hours</i>	<i>Est. Cost</i>
Identify information that needs to be on the web site	0	Office hours of technical support person and employee	Work with them 4 hours a week	0
Make structure to organize data	0	Office hours of technical support person and employee	Work with them 4 hours a week	0
Add login functionality for employees	0	Technical support person office hours	3 hours a week – find partner, paper work etc.	3 hrs * Tech. support guy's additional working hour salary
Highlight past accomplishments and current problems	0	Office hours of employees and tech. support person	2 hours a week	3 hrs * Salary of employees
Appoint Technical support guy responsible	0	Additional responsibility to his job profile (appraisal)	0	0

Total Cost:		Employee hours	Average of 4 hours per week for months	additional employee salary
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Goal 2: Set up collaborative software called 'Wiki' for everyday interaction among the three sites

Housing Alliance is a closely knit organization where employees work collaboratively to achieve their common mission. The fast and efficient transfer of information is very critical for making decisions on important legislative and legal issues. Ronell and other employees meet with the Governor and other legislative personnel on a regular basis to pass legislations to support the housing needs of people in Pennsylvania. These meeting require extensive research and valid information which is passed back and forth among the three offices. It is important to receive this information on time. There is thus a considerable amount of interaction among the three offices. Currently, Housing Alliance employees interact and communicate with each other through emails, faxes and telephone conversations. Frequent emails cause an information overload, where each employee is forced to back up and store the content he/she has sent out to others so as to have a reference for future use/conflicts. Faxes add to the paperwork where storage and referencing becomes cumbersome and time-consuming.

A wiki is a collaborative tool that helps organizations create and edit content on a web page. It supports hyperlinks and has simple text syntax for creating new pages and cross links between internal pages on the fly. It is used to manage documents internally within an organization. The main advantage of using a wiki is that it helps in tracking individual and team progress and helps all the members contribute to the team effort in an efficient manner. A wiki serves as a medium to store and retrieve information, like a knowledge repository, and also helps in documenting best practices. If a member of the team comes up with an effective solution to trouble shoot a particular problem he can post that solution on the wiki and it will be made available to the rest of the team members for future use. By having professionals within the organization contributing to a central knowledge source, a wiki helps in building a Knowledge Network of sorts. Housing Alliance deals with information and projects that require this form of interactive collaboration.

Approach:

- Identify what information needs to be shared among the employees at the three sites. This is done by analyzing past interactions among the three sites, future project and commitments to estimate future flow of information, and meeting with the employees to better understand their requirements. This is important in order to decide which Wiki software will satisfy the organizations need. A consultant is needed to monitor the process but the employees play a key role in identifying what information need to be shared.
- After understanding the information flow and requirements, one must identify which Wiki software would be the best fit for the organization. This is done by matching the gathered requirements to the various features that are unique to various software's available. There are multiple options and vendors in the market and consultant will provide the employees with this information. The employees along with the consultant will identify which software is the best match for their organization.

- Any new software requires training for the employees to get acclimatized to the new features. There will be an approximate 3 months training period for the employees. This training will include how to use the various features such as how to post, update and delete messages. Employees will be trained with the functionality of the software and will be observed to assess their comfort and ease of use. The software will also be observed to test how well it matches the organizational requirements.
- Once the training period is over, the employees will better understand the product and all its features. A decision to upgrade or switch to new software will be made at this point. It is recommended that the training happens with “free software”. This will not only allow the employees to understand the product but also save them from an investment into software they do not like. Repeat the training process if the employees decide to switch to a new software. The cost factor associated with this repeat step is limited to employee time. The employees will have to get used to new product features but by and large they are consistent over the range of software available.
- A technical support person is identified and placed in charge of the regular maintenance of the Wiki. It would be his responsibility to ensure that old and irrelevant data is deleted. Another import concern is the accuracy of the data. A wrong blog entry by one employee is viewed by all the others in the organization and is used for future referencing. Thus, periodic reports (every week or depending on the data sensitivity) must be generated by this person by using the “report feature” in the Wiki. This will be circulated among the employees in order to validate the accuracy of the data. Any discrepancies will be updated by the technical support person as well.
- The software use will be analyzed every 6 months to ensure that the features match the changing requirements. Upgrades can be made if the organization needs change and the employee requirements justify the investment.

Outcomes:

<u>OUTCOME</u>	<u>HOW IT WILL BE MEASURED</u>	<u>CURRENT MEASURE</u>
Employees will be able to communicate and interact better with each other.	This will be measured by the presence of a centralized place for information exchange. All employees look at the same place which ensures that all have the same information. Any inconsistency can be immediately identified and reported.	The number of emails sent back and forth. The paperwork involved with faxes. All employees may not have the same information.
Helps in tracking the individual and team progress	The project lead as well as the other employees can see who is doing what. All employees report to a central message board that ensures availability of the employee due to its “instant” nature and eliminates the time lags	Emails or faxes sent back and forth which breaks the flow of information.

	associated with email interactions.	
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Resources:

Internal Resources:

Housing Alliance is a small, closely knit organization where all the employees work together to achieve their mission. Thus the interaction among the employees is important and crucial for the sustainability of the organization. The employees work on common projects and research activities and thus need to track progress and interact with each other on a continuous basis.

- Employee observations will provide important information on comfort levels and proficiency in terms of ease of use of the Wiki software implemented
- Employee feedback
- The computers in each office serve as a resource as they will be used to test this software and will be used for employee training with the software.

External Resources:

- There are various options available for a Wiki.

Private: Private Wikies are corporate Wikies that offer more features and are password protected to offer higher levels of security. It is usually used for larger organizations where the information flow among the company is sensitive. It is used by project managers to hold discussions, update project progress, assign tasks and serve as the company's knowledge database. These are usually brought from a vendor as Wiki software and set up behind the company's firewall as part of an intranet.

Example of Private Wikies:

Windows SharePoint Services:

This service is a part of the Windows Server 2003 R2 or can also be downloaded for free. For an organization that uses a lot of Microsoft products, this software is easy to understand and is navigable with minimal training. It provides the desired collaborative and communication services that help members within an organization to share information.

It has specific system requirements such as any one of the Windows Server 2003 editions as an operating system and any SQL server 2000 with the latest service pack. Housing Alliance currently does not meet these specifications. Implementing this software would require the purchase of a new OS and a new SQL server which does not seem as a justified investment as of now. They must use one of the free downloads for around 6 months to assess the utility and comfort with the software and then upgrade to Windows SharePoint Service.

[Source: <http://www.microsoft.com/windowsserver2003/technologies/sharepoint/default.mspx>]

Public: There are several vendors who host “wiki farms” on the Internet. Housing alliance can set up their public Wiki here. They are usually available as free downloads. Some vendors sell a version of their software for a nominal rate. These versions include security features that allow corporations to exchange and post company-specific information. Since there are just three sites and 7 employees, it is recommended to have a public Wiki initially. Once the organization has tested it and is further down on the learning curve, they can upgrade to a password protected Wiki or a Corporate Wiki at additional monthly costs.

Examples of Public Wikies:

SocialText Workspace:

Offer a free 30 day trial and then lease sites for as low as \$5 a month.

<http://www.socialtext.com/>

SeedWiki:

Free software available for download from their website <http://www.seedwiki.com/>. It allows unlimited participants and provides unlimited storage. They offer extra features with their various accounts for a nominal monthly fee.

Blue Account: Allows passwords to limit the people who can gain access to the pages

Red Account: Allows one to create and maintain a website using their own domain name.

Offers password protection features as well.

Gold Account: Creates a group of related Wikies that share a common home page, directory and search. It also allows a visibility feature where one can make their own “virtual wiki farm”.

[Source:

http://www.seedwiki.com/wiki/seed_wiki/account_comparison_chart.cfm?wpid=144652&paidAccountsFromHome]

Play in the Sandbox: Many wiki vendors let you “play in their sandbox.” This is a demo site available online. The entries and posting made by the employees will be erased at the end of the day. The change one makes is not permanent and is essentially used for communication on a day-to-day basis. This demo site is available at the following link:

<http://www.editme.com/Demo>

Housing Alliance employees can try this version for a few days to assess their comfort and usability.

[Source: <http://www.editme.com/Demo>]

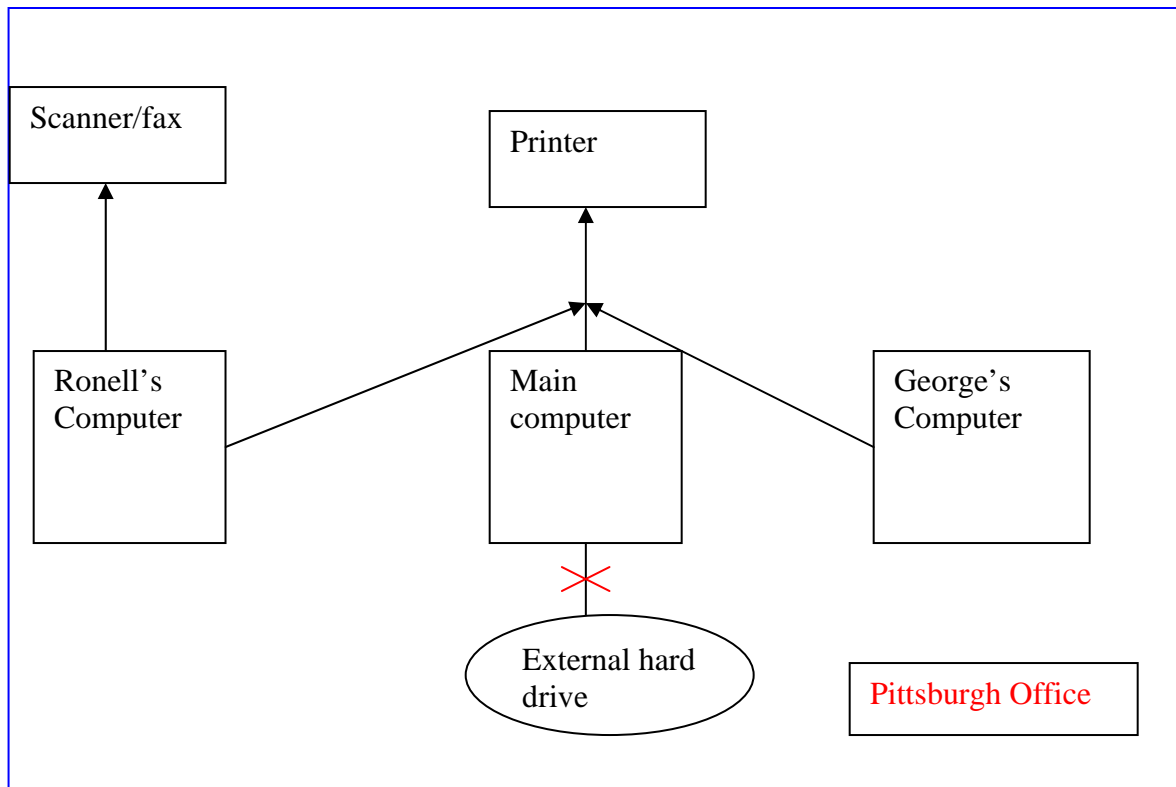
- A Student consultant who will help employees select appropriate Wiki software. He will also assist with the training and implementation.

Budget:

<i>Item or Procedure</i>	<i>Material Cost</i>	<i>Staff Hours</i>	<i>Consulting Hours</i>	<i>Est. Cost</i>
Identify what information need to be shared among employees	0	Office hours [no additional cost incurred]	2 hours every week with the employees	0
Identify which Wiki software is the best fit	0	Office hours	Research time to find software's available + 2 hours with employees	0
Implement the software. Free or paid depending on requirements	If paid/leased \$5 a month after the first month.	Office hours	2 hours a week	0
Train employees to understand the software features.	0	Office hours	2 hours a week with employees	0
Identify a technical support person for maintenance	Additional salary	Office hours with increased job responsibilities	2 hours a week to train him	0
Analysis every 6 months to ensure sustainability	0	0	2 hours every 6 months	0
<i>Total Cost:</i>	Initial training cost	Employee hours	Average of 2 hours per week	0

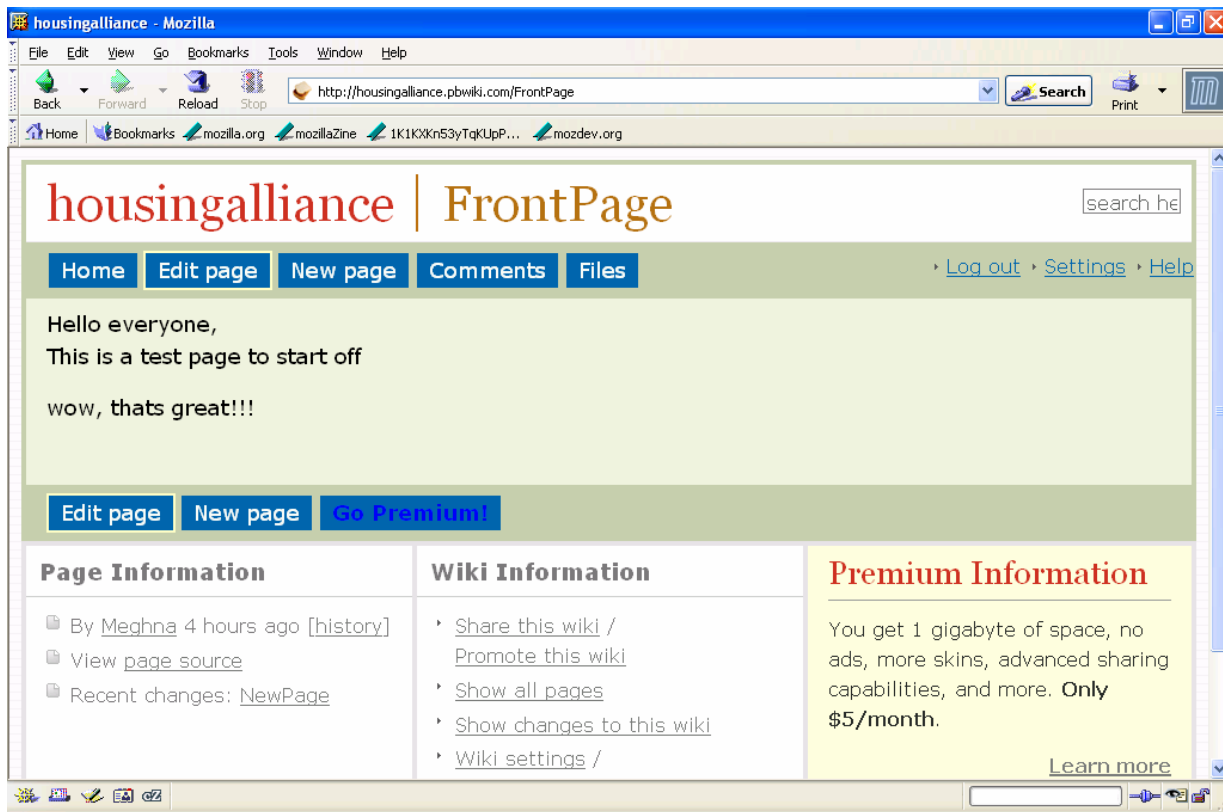
APPENDIX

[A] Current Scenario



[B] A Wiki created for Housing alliance at pbwiki.com: <http://pbwiki.com/biz/>

1. Front page with multiple options and view of the current page



2. Page where one can add messages.

