# Community Technical Assistance Center
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## I. The Consulting Situation

### *The Organization*

Community Technical Assistance Center (CTAC) is organized to provide technical aid and assistance to other community organizations. CTAC's mission statement is as follows:

> *CTAC is committed to building and strengthening effective community-based organizations through training, individualized consulting services, referrals, and publications. As a non-profit corporation, our goal is to develop strong communities by providing technical assistance to neighborhood groups, tenant councils, community-based organizations and community development corporations in Southwestern Pennsylvania.*

The office of CTAC is located near downtown Pittsburgh in the Alleghany West neighborhood. It is located on the second floor of a newly renovated two-floor building. The office address is 901 Western Avenue, Pittsburgh, PA 15233.

The programs and services at CTAC provides one-on-one assistance to roughly 125 clients a year and services hundreds more in workshops. CTAC maintains constant telephone contact with its clients. Much of the assistance it provides can be handled through telephone contact. CTAC provides assistance to improve neighborhoods, housing, parks, and also in improving various issues. Some of these issues are crime, events, arts and entertainment in the neighborhoods. Other methods of aid to the community-based organizations (CBO) that CTAC offers are seminars and workshops on various matters and interests. There are also various documents and kits for the CBO and the paper work needed to run programs and functions. CTAC has various links and information on their website that can be viewed and used by the CBO.

All the programs and functions at CTAC are handled by six staff members. The Director is in charge of reporting all finances and operations to a board of directors consisting of thirteen members. There are two Community Development Specialists (CDS) that are mainly in charge of delivering the programs at CTAC to the clients. CTAC currently has one vacant spot open for another CDS to share the workload. There is also an Office Manager who takes care of workshop logistics and administrative functions at CTAC.

CTAC and staff works on a yearly income of roughly $400,000. About fifty percent of the budget covers personnel, consulting costs cover about fifteen percent, programs covers another ten percent, and the rest is miscellaneous costs. Funding comes from various sources, such as the City of Pittsburgh, banks (ex. PNC, Mellon), the Government, and the Pittsburgh Foundation.

**The Technical Environment**

Technology is used at CTAC for various functions. One example is at the end of each month, all staff members must generate a report, which is presented to funders. Word processors such as Microsoft Word and Corel Word Perfect are used in this case. CTAC has a website that was created by a hired web consultant yet is managed by the Senior CDS, Alida Baker, who uses Dreamweaver. The database of CTAC uses ACT and is maintained primarily by the Office Manager, yet all staff member have access to entering data entries and editing the database. All the computers at CTAC are networked so that files and printers can be shared and accessed. CTAC has purchased DSL equipment and services.

The technology hardware (see appendix A) at CTAC consists of five computers, four printers, twelve phone lines, one fax line, and one Xerox machine. The computers are all running either Windows 95 or 98 operating systems. The processor speeds vary from 133 MHZ to 533 MHZ. All computers have CD-ROMS but none have ZIP drives or CD-RW drives.

All this technology is managed by an independent technology consultant. He works mainly when problems occur and is not a permanent staff member. Minor problems are handled by Alida Baker, who has the most technological knowledge and background of the staff. Yet major Windows, software and hardware errors are taken care of by the independent technology consultant.

*Consulting Focus*
*Technology Upgrade*

Several of the computers and software at CTAC are outdated. Besides Alida Baker, the Senior CDS, the other staff member at CTAC do not use technology to its fullest capacity. Part of the reason of this is because the technology and software used is old and is not sufficient in the needs for CTAC. A parallel problem that also arises is that software heavily used by staff members is not all uniform. For example certain people use Microsoft Word and other staff members use Corel Word Perfect. This causes problems because the programs are all different versions so when opening up WordPerfect documents in Word or vice versa strange and unwanted characters appear and the document seems to be altered. By updating software and hardware, so that uniform programs are used eliminate this problem. Which further allows the staff to use their time more efficiently without having to deal with unnecessary technological concerns and stress.

Recently, the board of directors for CTAC has allowed the purchase of several technology components (see appendix B). The problem that arises is that CTAC must purchase the equipment with the allowed budget given to them (see appendix B) and must present documentation to the board concerning the purchases. For each component of the list, three sources are needed with the best choice of the three stated.

The approach that was taken was to research latest technology by mainly using the Internet. The steps that were thought appropriate are as follows:
- The Senior CDS and the student consultant need to discuss specific needs
- Identify hardware accessories that are needed to overcome needs established above
- Student consultant gathers information via Internet
- Documentation produced on various options, and where and how information was gathered
- The Senior CDS and the student consultant review the documentation
- Get the choices approved by Executive Director and board of Directors

The steps stated above were chosen for various reasons. The documentation produced from the hardware research would also contain details on how the information was gathered. This is to increase the Senior CDS's capacity to research current technology using the Internet. Also when dealing with unfamiliar technological terms, the documentation expands the Senior CDS's capacity to research technological terms via various websites.

*Database Design*
The current database software at CTAC is ACT. The staff at CTAC views the program to be designed for corporate use, and that it does not fully suit a non-profit organization or specifically CTAC's needs. It is not used to its fullest extent and therefore the current database at CTAC is not efficient or sufficient. The main problem does not come with data entry but with data entry standards. This means that since various staff members are entering data, there are organizations and clients that are entered differently. For example some staff members can enter a client under the City of Pittsburgh title while others enter it is Pittsburgh. This creates two separate organizations that are actually just one. Another problem with the current database and its program is when entries are to be accessed and another factor is that there are numerous duplicate entries in the system. The basic setup of the current database does not have people and organizations linked so when inputting data and updating data it is very complex and time consuming. The problem not only lies in the database design and structure but also in the lack of knowledge of how to use ACT and it's functions efficiently.

This problem affects CTAC in many aspects. One aspect is that CTAC deals with many clients throughout the year so updating the system becomes a frequent task. Therefore with a disorganized database, updating entries become a more complicated and time-consuming task. Another aspect that affects CTAC is that with a disorganized database it affects credibility of CTAC. When dealing with clients and when the cliental information is not fully updated or difficult to access it makes CTAC seem less efficient.

With an organized database design system CTAC will become more professional and can lead to more funding in the long run. With a more presentable database the board of directors can visualize easily the amount of clients and organizations that CTAC deals with yearly and how efficiently the technology is used at CTAC.

The approach for this problem was broken down into several steps:
- All staff members to gather and discuss needs
- Create basic outline of desired database design and setup basic data entry regulations
- Student consultant gathers information on various sources of professional assistance dealing with database design. Some sources are technology consultants, and local University students
- Produce documentation on the various options for using outside assistance
- Present to the Senior CDS so that an option can be chosen

# II. Outcomes and Recommendations

## *Consulting Outcomes*

### *Technology Upgrade*
After consulting sessions, the Senior CDS and the student consultant agreed that a CD-RW and Zip drive would help in moving and saving massive data and added it to the list of desired technology components. With research from the Internet the student consultant managed to find better computers at a cheaper price from www.Dell.com.  The wanted specifications of the two computers were achieved with better parts and under the estimated cost by one hundred dollars (see appendix C).  A digital camera was also found that would be more than sufficient for CTAC's needs for one hundred dollars under the budget. Documentation was presented to the Senior CDS and the board of directors.  Information on where the information was found was also presented to the Senior CDS.  This expanded the Senior CDS's capacity, for example with the digital camera many questions arose dealing with all the terminology and variation of the cameras.  By going through www.BestBuy.com 's website the Senior CDS was able to read the Digital Camera's FAQ and was able to learn and gather information pertaining to the various differences between cameras.  This helped narrow down the choices and understand what type of digital camera was needed.

The recommendation that follow this outcome is for the Senior CDS to use the method that the student consultant used in purchasing some of the components and to gather information on some of the other hardware on the list (see appendix B).  Another recommendation is to constantly check the prices that the student consultant presented since computer prices tend to fluctuate as new technology comes out frequently.  This is only needed to be done until the board gives the actual money and green light to purchase the machines and components.

The following are some additional resources:
1.  http://www.techsoup.org/articles.cfm?topicid=11&topic=Technology%20Planning

    This article has information on technology planning.  The website www.techsoup.org generally has very good information about technology specifically dealing with non-profit organizations.

2.  http://www.insight.com/web/index.php

    This website has various products and also gives prices and product descriptions.

3.  http://www.zdnet.com/

    This website has tons of product reviews, latest prices and articles all pertaining to the technology available and coming out.

### *Database Design*
The staff of CTAC has had a meeting recently and came up with a desired database design in writing.  It has not been applied to the current database but the needs of CTAC have been decided upon.  The student consultant has contacted CMU and UPITT and has documented methods on how to hire graduate or undergraduate students for database design.  At UPITT, the graduate students are required to do 100 hours

of internship work throughout the year. Non-profit organizations are welcome to use this to their advantage and the Senior CDS was presented with whom to contact, Dorothy Sweeney, Director of Career Planning. Another option that the student consultant presented to the Senior CDS was that at CMU by posting a job and hiring a student with work-study only 25% of the students pay would need to be paid. A convenient outcome for this problem was that the student consultant knew and found a fellow CMU student who has knowledge on database design and the programs used and agreed to help CTAC with the database design at no charge for the upcoming semester. The Senior CDS increased her capacity by not choosing a solution, but by understanding all the options available and by understanding the needs of the database by meeting with all staff members. There is still a lot more work needed to fully address this problem.

The recommendation that follow this outcome is to further use the tools of staff meeting to come up with a better database design. The CMU student volunteer should be invited to sit in the meetings to grasp a general idea of the current situation and needs. Also if the CMU volunteer is inefficient to the needs of CTAC the other options of CMU and UPITT should be looked into since they are cost efficient and the students hired would not be volunteers but actual workers.

The following are some additional resources:

1. CMU Career Center, Telephone Number (412) 268-2064
   Resource for posting jobs at CMU for hiring Information Systems majors or students with database design background and knowledge

2. UPitt Katz Recruiting Coordinator, Patrick Hughes, Telephone Number (412) 648-1510
   This resource can be used to post jobs for graduate students that are studying information systems

3. CMU Student Volunteer, Andrew Chan, email: chan3@andrew.cmu.edu

### *Additional Recommendation*
*Geographical Information Systems (GIS) Services*
CTAC helps CBO's in various ways, and one way that can help this is GIS services. Programs such as ArcView can be used to generate community maps that contain various data. Information that these maps show cannot be passed on easily in other ways. The Senior CDS has minor knowledge and experience in a mapping program called Community 2020, yet it is not at a level where it can be used to perform tasks needed at CTAC. A GIS consultant was previously hired yet was not efficient time or money wise. With GIS services CTAC can show social and economic conditions of the numerous communities they serve effectively and professionally. GIS services are currently not in use.

There are many possibilities to incorporating GIS services into CTAC. Some of the possibilities are as follows:

1. Amy Kapp at 3 Rivers Connect (nonprofit organization) works as GIS consultant. Background information on how GIS services started there can be found out.

2. www.asincorp.com offers GIS services to non-profit organizations in PA.

3. www.gis.com is a website that offers basic information on GIS services and how it can be used.

4. http://www.dep.state.pa.us/external_gis/GIS_Information.htm this website offers grant programs for nonprofit organizations to obtain ArcView program.

5. http://www.gis.heinz.cmu.edu/gistutorial/ website that has basic information on GIS services and a link to purchase a CD tutorial to use ArcView.

*File Backup*

On each computer at CTAC there are numerous files that pertain to the work that is done there. Yet the only computer that has a file backup system is the office manager's computer, which has the database information. There are still plenty of important files on other computers that are not being backed up. Therefore if a computer crashed or a virus wiped out all the files a lot of work and files would be lost. The recommendation is to come up with a method to backup the files in case of emergency. The most obvious possibility is to wait until the new computers with CD-RW drives or Zip drives are purchased and to backup the files via CD's or Zip disks which can hold great amounts of data. An optional solution can be to print and make hard copies of the important files and store them in a filing cabinet. This is less efficient yet is still a solution. Also another step to file backup is to setup a day or time once a week or month to backup files. A staff meeting should be held to determine if each staff member or one individual should be in charge of backing up important files. And also to determine how often and when it should be taken care of. The following website give some general information on data backup and should be looked at, http://www.techsoup.org/articlepage.cfm?ArticleId=229&topicid=1.

# Technology Inventory

## COMPUTERS

| OFFICE | MANUF. | MODEL | TYPE | OS | MHZ | RAM | AGE | MISC |
|---|---|---|---|---|---|---|---|---|
| CDS | Gateway | GS200 | Pentium Pro | W98 | 533 | 222 | 4 | none |
| Office Manager | NEW | n/a | Pentium 3 | W.Mill | 1 Gig | 128 | NEW | Will be data server and ADSL server |
| Assoc. Director | NEW | n/a | Pentium 3 | W.Mill | 1 Gig | 128 | NEW | Web maintenance responsibility |
| Intern | Gateway | GS200 | Pentium Pro | W98 | 200 | 64 | 4 | none |
| Intern | Gateway | GS200 | Pentium | W98 | 200 | 43 | 4 | none |
| Financial | Gateway | GS200 | Pentium | W95 | 200 | 32 | 4 | Needs new OS |
| Front Desk | NEC | 9022 | Pentium | W98 | 133 | 64 | 6 | none |
| None | NEC | 7022 | Pentium | W95 | 133 | 32 | 6 | Ready to throw out |

## PRINTERS

| OFFICE | MANUFACTURE | MODEL | AGE | CONDITION | MISC |
|---|---|---|---|---|---|
| CDS | Hewlett Packard | 970 CSE | 1 | Fine | none |
| Office Manager | Hewlett Packard | 855 C | 3 | Fine | none |
| Financial | New | LaserJet | New | Fine | none |
| None | Okidata | Dot Matrix | 10 | Decent | Prints checks |
| None | Okidata | Laser Jet | 7 | Not in use | Sold recently |

# DESIRED TECHNOLOGY COMPONENTS

| HARDWARE | ESTIMATED COST |
| --- | --- |
| Two Computers (2) | 2000.00 |
| Pentium III | |
| 1Ghz processor | |
| 128 MB SDRAM | |
| Windows Millennium or 2000 | |
| No monitors | |
| Network Card | |
| 40 GB Hard Drive | |
| | |
| Lap Top Computer | 1000.00 |
| LaserJet Printer (Financial Use) | 400.00 |
| Scanner | 100.00 |
| Digital Camera | 400.00 |
| Projection Unit | 2500.00 |

## Desktop Computer Research Results

| COMPANY | PROCESSOR | HARD DRIVE | MEMORY | OPERATING SYSTEM |
|---------|-----------|------------|--------|------------------|
| DELL | Pentium4 1.6Ghz | 40 GB | 128MB SDRAM | Windows XP Home |
| DELL | Pentium4 1.6Ghz | 40 GB | 128MB SDRAM | Windows XP Home |
| Gateway | Pentium4 1.5Ghz | 40 GB | "" | "" |
| Gateway | Pentium4 1.5Ghz | 40 GB | "" | "" |
| Compaq | Pentium4 1.6Ghz | 40 GB | "" | "" |
| Compaq | Pentium4 1.6Ghz | 40 GB | "" | "" |

| EXTRA DRIVES | WARRANTY |
|--------------|----------|
| 16/10/40 CD-RW drive | 3 yrs onsite and Lifetime phone |
| 16/10/40 CD-RW drive and Iomega Zip drive | 3 yrs onsite and Lifetime phone |
| "" | "" |
| "" | "" |
| "" | "" |
| "" | "" |

| MISC. | PRICE |
|-------|-------|
| ethernet card ready, no monitor or speakers, free CDRW offer | $897 |
| ethernet card ready, no monitor or speakers, free CDRW offer | $997 |
| "" | $1,107 |
| "" | $1,207 |
| "" | $973 |
| "" | $1,073 |