

THE COMMUNITY TELECENTRE COOKBOOK FOR AFRICA

RECIPES FOR SELF-SUSTAINABILITY

How to Establish a Multi-purpose Community Telecentre in Africa

by
Mike Jensen and Anriette Esterhuysen

**United Nations Educational
Scientific and Cultural Organization**

Paris, 2001

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Recommended catalogue entry:

The Telecentre Cookbook for Africa: Recipes for self-sustainability/
Prepared by Mike Jensen and Anriette Esterhuysen. - Paris: UNESCO, 2001.
– vi,
130 p.; 30 cm. - (CI-2001/WS/2)

I - Title

II - UNESCO

PREFACE

People living in developing countries are becoming increasingly aware of the powerful role that new information and communication technologies can play to help them in their struggle for education, democracy, and economic and social development. However, with six billion people on the planet and only about 800 million telephone lines, more than half of the world's population have not yet made a telephone call, let alone accessed the Internet. If this digital divide is not closed, there could be an even greater gap between the rich and poor of the world.

So how can this challenge be met? One solution is public access communication and information services, commonly known as Telecentres. Telecentres are being established through private and public programmes across Africa, through special projects, or by adding PCs to telephone shops, schools, libraries, community centres, police stations and clinics.

Costs can be kept low by taking advantage of the fact that communication and computing technologies allow voice, fax and Internet data to travel over the same telecommunication link. Sharing the expense of equipment, skills and access amongst an ever-increasing number of users also helps to cut costs and make these services viable in remote areas. If the usage and responsibility are shared, the potential for long-term sustainability will be increased, and it will contribute to realising Universal Service Objectives in rural and remote locations where the majority of people in developing countries live.

The Telecentre concept has been widely adopted in the United States, Canada and Australia, but in those countries the focus is on more advanced services such as Internet access and video conferencing rather than on basic telephone services. In developing countries in Africa and elsewhere, public facilities are needed for basic access, and for value-added services that can contribute to the social and economic welfare of the community.

Private Telecentres and telekiosks have been established in countries like Ghana, Kenya and Senegal, but Telecentres in Africa have also received considerable support from UNESCO, the ITU, the IDRC and a number of other international development agencies. The governments of a number of countries, as well as telecommunications operators, have also contributed to the spread of access to services. In Africa there are over 20 special pilot Telecentre projects scattered throughout the continent. They have been set up to test different models, mechanisms of implementation and strategies for sustainability. The most well known of these projects are the ITU/UNESCO/IDRC projects in Benin, Mozambique, Uganda, Mali and Tanzania, and the South African programme supported by the Universal Service Agency USA).

Although interest in Telecentres is widespread, they are a new concept, so there is a shortage of knowledge on how to establish and sustain them, especially in Africa. Most of the existing introductory texts, guidelines and manuals have been written for Telecentre operators in developed countries. The aim of this manual is to draw upon existing knowledge and materials and adapt them to the African context in a style, which is user-friendly and makes few assumptions about the user's knowledge. This manual is aimed at any person or organisation that is interested in setting up a community-based Telecentre, such as a telecom operator, an NGO, a community group, a local government or a small business.

With the rapid developments in technology and the ever-changing understanding of the scope and potential of Telecentres, no manual can be completely comprehensive. It is hoped that this manual will serve as a starting point, which can be further, refined and enlarged with input from the growing number of Telecentre projects in Africa.

Long-term economic sustainability is the probably the most critical issue facing MCTs in Africa. Although elements of guidance are provided in this document, no general formula is yet available, and this aspect will be should revisited in the context of ongoing experiences and hopefully developed more methodically in the next edition of this Cookbook.

ACKNOWLEDGEMENTS

SANGONet carried out the work of producing this manual under a contract from UNESCO, through its Pretoria Office. The manual was prepared by Mike Jensen and Anriette Esterhuysen. A number of key inputs to the manual came from the efforts of others working in the same area, in particular the South African Universal Service Agency (USA), which has been charged with helping to establish hundreds of telecentres countrywide. It has been working on developing an operating manual for telecentres in South Africa with support from the Dutch KPN, and on an implementation strategy with David Townsend & Associates. Other important resources used include: The IDRC's *A Guide to the Start-up of the African Multipurpose Community Telecentre Pilot Projects*, the US-based Community Technology Centers' Network (CTCNet) *Center Startup Manual*, and the Western Australian Toolkit developed by the Western Australian Telecentre Support Unit of the WA Department of Trade and Commerce.

A reference group was formed to assist the authors in the development of the manual. The group, with their institutional affiliations at the time of the work, comprised: Peter Benjamin (Link Centre, South Africa), Günther Cyranek (UNESCO Addis Ababa), Birama Diallo (National Coordinator, Timbuktu MCT, Mali), Hezekiel Dlamini (UNESCO Nairobi), Polly Gastor (CIUEM, Mozambique), Corbin Michel Guedegbe (SDNP-Benin), Guy Girardet (ITU), Tina James (consultant), Meddie Mayanja (Uganda National Commission for UNESCO), Esme Modisane (Mamelodi Community Centre, South Africa), Theophilus Mlaki (Tanzania Commission for Science and Technology), Aubrey Mthinjwa (Universal Service Agency), Velpahi Mtshali (Telecentre Manager, South Africa), John Rose (UNESCO, Paris), Peter Schioler (UNESCO, Pretoria), Mandla Sithole (Universal Service Agency) and Jeannette Vogelaar (UNESCO Harare).

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1 HOW TO USE THIS MANUAL

Read the Contents page to find the sections you are looking for and page through the manual for other useful material. You may come across terminology that is new to you. If so, turn to the Glossary of Terms at the back of the book for an explanation. You will also find a list of materials, suppliers and resources, which are referred to, in the main text of the manual.

The manual can be used as a guide for staff and users of a Telecentre. (Permission for duplication is granted for non-commercial use under the Open Source license).

The manual caters specifically for communities that are interested in starting a Telecentre. It also contains information which is useful to people who are already operating Telecentres. Although there are many types of Telecentres, the recipes for success are common to them all.

If you need information about funding, go straight to the section on *Fundraising*. If you need to develop a business plan, go to the section on *Developing the Business Plan*. If you are interested in expanding your services, the section on Telecentre Services may give you some useful tips.

What do you think of the manual?

UNESCO wants to know what you find useful or not useful in the manual. What is missing? What should be left out? Future editions of the manual will take your suggestions into account. Information about your own experience of Telecentres can give some useful tips to future operators. E-mail your ideas, comments and suggestions to UNESCO at cookbook@un.org.za

2 TELECENTRE BASICS

2.1 WHAT IS A TELECENTRE?

There are different kinds of Telecentres

There are many kinds of Telecentres. Telecentres may be independent individual agencies or enterprises, part of a franchise, or perhaps a project of a national agency. All Telecentres aim to stimulate and respond to the demand for information and communication services, yet each Telecentre is likely to have its own unique qualities that match the needs of the community. Of course, all Telecentres believe that they are relevant to the community they serve. An important indicator of the success of any Telecentre is the degree to which it becomes an integral part of the community it serves. Telecentres often start out small and expand their services in response to demand.

People need access to telephones, faxes, photocopying machines, e-mail and Internet services to strengthen them personally and professionally, as well as for community development. If they have a sense of ownership of the Telecentre, and they or their representatives are involved in the set-up and running of a successful Telecentre, their self confidence will be boosted, negativity about effecting change will be banished and many other positive benefits for development in the community will result.

Although this manual refers to a range of possible Telecentre models, the primary focus is on **Multi-purpose Community Telecentres (MCTs)**, owned by the communities themselves, because of their potential to address the needs of people in Africa in a way that most empowers the communities they serve. MCTs are generally seen as structures that can encourage and support communities to manage their own development through access to appropriate facilities, resources, training and services. Other names for Multi-purpose Community Telecentres are: "Community TeleService Centres"; "Multi-purpose Community Information and Communication Centres"; and "Community Multimedia Centres".

Telecentres may be used to provide access to distance education, employment opportunities, training and business enterprise. Telecentres allow entrepreneurs and business people to plan and prepare their arrangements and to communicate with partners and potential clients from a distance. Through the Internet students and educators can register with educational institutions anywhere in the world; access archival material or receive online instruction from central national services. Telecentres can also serve distance education students by providing educational software packages on site and upgrading them as new educational packages are produced. Specialised services can be offered to healthcare workers, enabling them to use telediagnosics programs, order supplies, pass on public health information, and to obtain specialist advice for complex health problems.

"Multi-purpose" means that a Telecentre is able to provide a variety of services to different user groups within a community: for example, services relating to education and training; information; health; culture; the economy; welfare; social issues; safety and many more. Telecentres can operate as businesses. Although they may start off with funding or a grant, and may rely to a large extent on volunteer support, the aim is always to generate sufficient income through the provision of services to become self-sustainable. To realise this aim MCTs need to be managed well and provide services for which there is a

demand. Even MCTs which have a 'not-for-profit' legal identity need to be financially viable to be successful.

2.2 DIFFERENT KINDS OF TELECENTRES

Telecentres aim to provide one or more of the following services:

- Access to telephones and faxes
- Access to e-mail
- Access to the Internet
- Other information services
- Other developmental support services to meet basic needs
- Education in "Information Age" skills.

The simplest kind of Telecentre may be a cell phone with the owner of the Telecentre selling user-time to people in small communities where there are few or even no telephones. This has worked well in countries such as Bangladesh, where the Grameen Bank has been lending money to rural women to buy cell phones since 1997.

Kiosks or outdoor units that provide telephone and Internet access are also becoming increasingly common. Some telephones such as the iPhone in South Africa now have a modem and a built-in touch screen, keyboard and printout facility. Units like these may be installed at places such as general dealers or guesthouses to sell access to Telecentre services.

Another possibility is a Telecentre which starts out by offering a single public phone and then later, depending on the demand, expands and obtains a fax machine, photocopier and computer so that it can offer Internet access and other services.

The size and scope of any Telecentre depends on what equipment it has. Generally, there are four sizes of Telecentre: Micro, Mini, Basic, and Multi-purpose Telecentres.

2.2.1 MICRO TELECENTRE

Micro Telecentres are usually housed at a shop or other business. They provide pay phone(s) with a built-in web browser and possibly a smart card reader and a receipt printer. Some of these units are outdoor kiosks. Many are used in South Africa and Australia, and are becoming increasingly common in public places world-wide.

2.2.2 MINI TELECENTRE

A Mini Telecentre will usually offer a single phone line (possibly GSM cellular) with a three-in-one scanner/printer/copier, a fax machine and a PC with a printer, Internet access and a call meter.

2.2.3 BASIC TELECENTRE

A basic Telecentre offers a number of phone lines, a call management system, fax machine, photocopier, several PCs with a printer, Internet access and perhaps a scanner.

2.2.4 FULL SERVICE TELECENTRE

A Full Service Telecentre will offer many phone lines, multi-media PCs with Internet access, a high-volume black and white and colour printer, a scanner, a digital camera, a video camera, a TV, an overhead projector, a photocopier, a laminator, meeting rooms, and a telediagnostic and video conferencing room.

Institutional models of Telecentres

There are many different models of Telecentres. They can operate as individual businesses, as part of a franchise or as a multi-branch company. They may be owned or operated by **government departments, schools, community organisations and NGOs**. Telecentres are found in **co-operatives, libraries, community centres, churches**, and **farmers' groups**, or even operated by a community **radio station**.

Starting small and expanding as the demand grows

Experience shows that a *phased in* approach to Telecentre expansion offers the best chance of success. The Telecentre starts out with basic services and adds to them as demand grows. Although it is technically possible to set up a small Telecentre in the majority of the rural villages in Africa, it may not always be economically possible to increase the services offered. The Telecentre must adapt to serve the needs of the local community.

2.3 EXAMPLES OF TELECENTRES IN AFRICA

2.3.1 PUBLIC TELEPHONE SHOPS IN SENEGAL

In Senegal, the Public Telecom Operator (PTO) does not provide public phones, but there are over 8 000 public telephone shops, called Telecentres. These are licensed by the Public Telecom Operator (Sonatel), and run by local entrepreneurs. Although the guidelines have been developed mainly for community Telecentres, some of the technical elements will be of use to any telecentre. Many have added fax and word processing services, and over seventy have added Internet access. No financing is provided, but to encourage their establishment, Sonatel gives a 40% discount on tariffs and provides advice for Telecentres wishing to add other services such as fax and Internet access.

2.3.2 A MULTI-PURPOSE COMMUNITY TELECENTRE IN UGANDA

The Nabweru Multipurpose Community Telecentre opened in May 1999. It is located approximately five kilometres from Kampala. Funding for the Telecentre comes from the International Development Research Centre (IDRC) and from the community. At present the Telecentre is 'owned' by the Uganda National Commission for Science and Technology (UNCST).

The overall objective of the Nabweru Telecentre Project is to develop, test and promote community-based information and the applications of communication technology for the development of rural communities. The Telecentre is housed in one end of a fairly new building. It has five rooms, of which the largest is the computer room.

The Nabweru Telecentre has the following equipment:

- One television
- One video cassette recorder
- Five computers, all with Internet access
- One printer
- One telephone
- One fax machine
- One photocopier
- Uninterruptible Power Supplies for the computers for short power cuts (of about half an hour)
- One generator for longer lasting power cuts.

Because there is only one telephone line (which has to be shared between the telephone, the fax and the computers) there is often congestion, which makes it difficult to make telephone calls, send faxes and connect to the Internet. Also, the power supply in the area is very unreliable and of low voltage.

The Nabweru Multipurpose Community Telecentre offers the following services:

- Computer training and application, including Internet access
- Telephone calls - local, national and international
- Sending and receiving faxes
- Photocopying
- Video shows - education and entertainment (mostly in English).

The telephone service and the photocopying service are the most popular. The computers are mostly used by young people who surf the Internet for scholarships. Ten frequent e-mail users use the computers on a daily basis. Computer training is also popular with people in the community.

There are today three Multipurpose Community Telecentres in Uganda. Two implemented IDRC and one, Nakaseke MCT, implemented by UNESCO, IDRC, ITU and others.

2.3.3 GASELEKA TELECENTRE, SOUTH AFRICA

The telecentre is situated in the north eastern part of South Africa about 40 Km from the Botswana border. The area is rural, arid and with 80 km from the nearest town. All roads in the area are gravel or dirt roads. The telecentre at Gaseleka was established by the South African Universal Service Agency in 1998.

There are; 6 phone lines - 4 used for telephones, 1 fax line and 1 for the Internet. Four Pentium PCs and four 386 PCs. All PCs are connected to a colour printer via a peer-to-peer LAN. Other equipment includes; 1 telephone modem, 1 photocopier and 1 colour scanner

Most users of the telecentre make phone calls, as it is the only useable payphone in the area, other popular services are the fax and photocopy facilities. Local schools are a major users of bulk copying for question papers and reports. They also use computers to type up curricula, reports and schedules.

Computer training courses have been a major success for the telecentre. The course 'Introductory Computer Practice', which is certified by a local technical college, includes; Introduction to Computers, Typing, File Management, Operating System, Word-processing (Microsoft Word) and Spreadsheets (Microsoft Excel). The course has a duration of 150 hours distributed over 15 weeks.

The telecentre has made an arrangement with the Department of Home Affairs, which is responsible for ID documents, birth and death registrations, passports etc. in South Africa. Two officials from Home Affairs visit the telecentre every Friday morning to offer their services to an average of 30 people. The telecentre has invested in an instamatic camera to take ID photos, and now makes about \$100 every month from taking pictures needed for official forms. The motivation for having the Home Affairs office is to provide a useful service to the community, and increase the number of people coming to the centre.

The telecentre also assists users to follow courses at UNISA (University of SA) and Technikon SA, the two main distance education institutions in South Africa. Through the telecentre 34 people are now following distance education courses. The telecentre is negotiating with UNISA to become a 'learning centre', which would mean that the telecentre would receive some of the course books for a training library, and would earn a percentage of the course fees.

There was no post office in the area, and the telecentre has therefore become a 'postal service point' by including post office services to its list of services.

In the future the telecentre aims to develop more information services. The community has expressed a desire to start a local newspaper as well as a community radio station as non of these facilities exist in the area.

3 GETTING STARTED - COOKING UP YOUR OWN TELECENTRE

To ensure that the Telecentre is sustainable, you must make sure that it starts off correctly. Because it is a complex task to set up a Telecentre, the following explains the basic steps to be followed so that the Telecentre will be of greatest benefit to the community.

- First set up a core group of people who will be responsible for guiding the continuous development of the Telecentre.
- Then a public meeting must be held to assess the community's information and communication needs. This will help to define the type of Telecentre and services that will be established.
- Next, premises must be found and a business plan must be developed.
- Once this has been done, the funds will have to be raised.
- Finally, when the schedule has been finalised, cooking can begin!

The minimum requirements for setting up a Telecentre are:

- Customers/users
- Start-up finance
- A business plan
- Suitable premises
- Electricity and telephone connections
- Capacity to meet the legal requirements
- Tools (hardware and software) and furniture
- A Co-coordinator/Manager and a Steering Committee (or governing body).

3.1 SETTING UP THE GROUP RESPONSIBLE FOR THE TELECENTRE

The first step in setting up a Telecentre is to appoint a permanent **Steering Committee**. It will be responsible for guiding the whole process of starting the Telecentre and then, on a long-term basis, for ensuring its continued success and development. Depending on the local legal requirements, the Steering Committee can serve as the governing body or in an advisory role. A Steering Committee will normally consist of members of the community who have a keen interest in starting a Telecentre. Additional members of a Steering Committee may be appointed at a public meeting to which members of the community are invited. You will find more information about how to organise a public meeting further on.

One of the Steering Committee's first tasks is to identify the information and communication needs of the community and to appoint a **Management Committee**, which will be more, involved in the start-up and day-to-day running of the Telecentre.

What is the difference between a Steering Committee and a Management Committee?

The Steering Committee appoints a Management Committee for the Telecentre. The Management Committee is normally a smaller group comprising some members of the Steering Committee, some Telecentre staff members, and others with special skills.

The Management Committee is accountable to the Steering Committee and usually appoints a single person as the organiser responsible for the Telecentre. It is usually not possible for a Telecentre organiser to have all the skills and experience necessary to set up a Telecentre on her or his own. So a good organiser must be able to select and recruit people who have the skills that are needed to plan, establish and guide the operations of the Telecentre.

A Steering Committee should be:

- **Representative** of the community
- **Committed** to the community and to the Telecentre
- **Active** - Steering Committee members who only attend meetings and do nothing else are of no use to the Telecentre!

The Steering Committee should consist of at least:

- The Telecentre organiser
- Representatives from the target group (or the broader community)
- Representatives from the local business sector
- Representatives from the education community
- One or more other professionals, preferably people with technology expertise, experience in finance and marketing, and legal expertise.

How many people should there be on the Steering Committee?

It can be difficult to arrange meetings and make decisions if there are too many people on the Steering Committee. However, it is important to have people with different kinds of expertise so that the needs of the community are clearly identified. This will help to make decisions about what services to provide initially.

What kind of people will be on a Telecentre's Steering Committee?

Steering Committee members can help the Telecentre in different ways if between them they have the right mix of skills:

1. *The Organiser*

The Organiser is often the person who had the idea to establish a Telecentre, but he or she can also be someone else appointed by the Steering Committee or Management Committee. The Organiser may come from any sector of the community. He or she may become the Telecentre Director or Manager.

2. *Community representatives*

You should never forget that a Telecentre must serve the residents of the immediate or surrounding community, so community voices need to be heard on the Steering Committee from the beginning. This is very important, not only for identifying the most appropriate services, but also for generating a sense of ownership of the Telecentre from the beginning. Community representatives may be from school governing bodies, local NGOs or CBOs, religious institutions, community service agencies or street committees.

These representatives may be elected to the Steering Committee at a **community meeting** (see below).

3. *Business community representative*

Representatives from the local business community may be able to offer special skills and expertise, and also possibly other business support. For example, a local technology manufacturer may be able to offer knowledge about computer hardware and software. A representative from a human resources company may be able to help with recruiting staff and developing staff training programmes. A representative from an employment agency may be able to help with planning a job preparation and placement programme.

4. *Professionals*

A Telecentre needs professional advice and services at different stages of its development. For this you will need:

- **A technician** who can solve technical problems, especially with computers, and can assist with equipment maintenance and upgrades.
- **An accountant** will be needed to set up an accounting system for the Telecentre. You need accurate accounting records to make sure that the Telecentre keeps within its budget and plans properly to cover expected and unexpected costs. Only a full set of accounts will make it possible to set the prices for services to ensure that they are sustainable. The tracking and reporting of income and expenses will also be expected by any agency that provides a grant to a Telecentre.
- **An attorney** will be needed to establish the Telecentre according to the laws of the country; to advise on the terms and conditions of contracts and sub-contracts with partners; to review a Telecentre's lease; and to advise on insurance policies.
- **A marketing or public relations professional**, although rare in rural areas, would be an invaluable person to assist in the development of a marketing or community outreach plan and in long-term planning for the Telecentre. He or she will also be able to assist with writing press releases, proposals and articles for magazines, and advise on how to approach local radio and television broadcasters.

5. *Representative from the educational community*

Representatives from the educational community are important, as this sector is often one of the biggest potential customers of Telecentre services. Representatives may come from local schools and their PTAs or governing bodies; community colleges; universities; libraries, museums; or adult education programmes. Steering Committee members from the educational community will offer an understanding of how this sector works and what the possibilities are. They may also be able to identify volunteer trainers for the Telecentre.

6. *Other Steering Committee members*

After a few months, the Steering Committee may decide that other skills are needed. These may be fundraising skills or knowledge of equipment and the best equipment suppliers. You may also need people with the skills to help renovate or adapt the Telecentre premises.

What does the Steering Committee do?

Steering Committee's tasks are to:

- Set the directions, guidelines and strategies for the Telecentre.
- Help to obtain and secure start-up and on-going funding for the Telecentre.
- Seek new directions for the Telecentre, where possible.
- Develop policies and procedures relating to membership, usage, data collection, financial management and other operations.
- Observe legal requirements.
- Provide specialist advice.
- Appoint the Management Committee.

What does the Management Committee do?

The Management Committee is primarily responsible for:

- Managing the Telecentre in accordance with its stated objectives.
- Providing on-going support to the Telecentre staff where needed.

The most successful Telecentres are those that have a good working partnership between their Management Committee and the Co-ordinator. They work as a team. The Management Committee is responsible for the on-going operational changes of the Telecentre. The Co-ordinator is responsible for its day-to-day operations.

Responsibilities of the Management Committee:

1. *It has a legal responsibility to the Telecentre*

It must develop an understanding of the structure of the Telecommunications and Internet sectors in the country; develop the Telecentre's constitution and ensure that it is adhered to; take responsibility for any agreements with funders and ensure that the Telecentre adheres to local and national laws.

2. *It has a responsibility as an employer*

This includes signing contracts with the Co-ordinator or other staff members; ensuring that tax deductions are made; negotiating arrangements with medical aid and provident fund schemes; ensuring that safe working conditions are provided; ensuring that staff are treated fairly and in accordance with legislation governing equal opportunity employment, unfair dismissal procedures, etc.

A Telecentre's Co-ordinator will have more time for planning and undertaking new initiatives if members of the Management Committee also take responsibility for some of the Telecentre's administrative and organisational functions. Organising meetings, preparing reports and ensuring that equipment is maintained can take a lot of time. If possible, members of the Management Committee should volunteer for some of these tasks.

3. *It has a responsibility to the community as a service provider*

It must provide safe conditions for public access to the Telecentre; maintain insurance policies on the Telecentre's building and equipment; and take out other insurance coverage as required.

4. *It has a responsibility to the community*

It must ensure that there are proper accounting processes are, that annual budgets are met and an annual audited statement is prepared. It must also ensure that a cash flow chart is maintained by the Telecentre staff and that monthly, quarterly and annual financial reports are prepared.

5. *It is responsible for ensuring the on-going evaluation and monitoring of the Telecentre.*

To make sure that that the Telecentre continues to be sustainable and provide for and anticipate the needs of the community, there must be an on-going process of monitoring and evaluation. Agencies providing grant funds or donations will require this.

3.2 LINKING THE TELECENTRE TO THE COMMUNITY

The next step in forming a Telecentre is to develop its links with the local community - this means making the community aware of the Telecentre and getting the community's support so that they can help define what sort of Telecentre is required.

3.2.1 HOLDING A PUBLIC MEETING

The most important first step is to hold a public meeting of community members to determine the nature of the Telecentre and to ensure that everyone supports the project. Make sure you have read Section 3.3.6 **Marketing the Telecentre** on page 53, before you hold a public meeting.

Each community is different and in some cases Telecentres may target outlying rural areas so it is not always possible to invite the whole community to a meeting. The Steering Committee might at first decide to invite representatives from the educational sector or the agricultural sector, or some other major sector in the community to a meeting. However, wherever possible it is a good idea to call a public meeting and invite as many different sectors of the community as possible.

At this meeting members of the Steering Committee will explain what a Telecentre is, what types of equipment and services can be offered and the potential benefits to the community. As well as the obvious benefits of telephone, fax and e-mail, the following advantages should also be highlighted:

- Local and 'distance' employment might be generated.
- Educational and training opportunities will be expanded.
- Local businesses will be able to compete with city companies.
- Communication with distant regions and friends or relatives abroad will be possible.
- Social opportunities will be expanded.
- The Telecentre will be able to provide access to on-line information services for weather, market prices, news, banking, medical advice, business advice, marketing information, travel arrangements, etc.

Community members may ask many questions at this meeting. Here is a list of possible questions and answers:

Possible Questions and Answers

Question: WHAT EQUIPMENT IS USED?

Answer: *Telephones, computers, printers, modems and fax machines will be used. Video and audio equipment is used to communicate voice, picture and written text electronically. The actual number of machines varies from one Telecentre to another.*

Question: HOW MUCH WILL IT COST?

Answer: *The cost of establishing a Telecentre will depend on the services provided and the possibilities of obtaining financial support. The cost of using the Telecentre services will be as low as sustainable possible to ensure that the maximum number of people will be able to make use of them.*

Question: DO TELECENTRES REALLY WORK?

Answer: *Where there is community support and involvement, most Telecentres are successful. The Telecentre will be guided by the Steering Committee and a Co-ordinator will be appointed to help members of the community to use the equipment.*

3.2.2 TARGET GROUPS

As well as making the community aware of the Telecentre project, the public meeting will help you to start determining what type of Telecentre and services are needed by the community. You can do this by identifying potential **Target Groups** in the area and matching them to the services they require. A Telecentre's target groups will normally include a number of the following:

- Individuals (local community members, tourists and passing professionals such as truck drivers and engineers)
- Small businesses
- Schools
- Youth
- Disabled people
- Farmers
- Women's groups
- Churches
- Clinics, hospitals and healthcare workers
- Police
- NGOs or CBOs
- Trade unions
- Civic organisations
- Political parties
- Government departments
- Sports clubs

The Telecentre is likely to focus on a few priority sectors at first and then expand its focus as it develops. A good Telecentre Co-ordinator (or Manager) will always have his or her finger on the pulse of the community and be looking out for new target groups or activities that need Telecentre services.

NGOs and development projects often need communication and information services. For example, the *African Women's Anti-War Coalition*, which began in Senegal, now has representatives in countries all over Africa. How are these women going to communicate with one another? The *Southern African Campaign to Ban Landmines* played a critical role in the *International Campaign to Ban Landmines*. This campaign was so successful that governments all over the world changed their policies to ensure the removal of landmines and to halt the production of landmines. Why was this campaign so successful? Because the entire campaign was conducted via e-mail. People all over Africa and all over the world exchanged ideas and collectively orchestrated an important international response.

3.3 DEVELOPING THE BUSINESS PLAN

Once the public meeting has been held and general support for the project has been established, you will need to draw up a list of objectives and develop the whole process and strategy for establishing the service. This is usually done by producing a business plan which will contain all the information needed to start the project. It will describe in detail the aims of the initiative, its long-term viability, start-up requirements and the process for establishing the Telecentre.

The Telecentre business plan is vital in raising the funds and obtaining other kinds of support needed to start the operation. The business plan is also a living document that should be reviewed by the Steering Committee every year to accommodate new developments and new ideas.

A Business Plan has on-going value:

- It is a guide to setting up and running the Telecentre.
- It explains to partners and funders why the Telecentre needs their help.
- It is used to raise funds for the Telecentre.
- It acts as background material for staff and volunteers.
- It sets the Telecentre's on-going operational budget.

A business plan describes everything about the Telecentre. It is a detailed statement of the objectives of the Telecentre and the strategies for achieving the objectives, and explains how progress will be assessed on an on-going basis.

While you are thinking about what to include in the Business Plan, spend some time thinking about every possible question that somebody who might fund the Telecentre will ask. A funder will need to know that they are making a good investment. They will ask questions like this:

- What services will the Telecentre offer?
- How will the services be provided?
- Who will the Telecentre's user groups be?
- How will the Telecentre's services be marketed?
- What does the Telecentre's budget look like?
- Can the Telecentre be financially sustainable?

Some people have a very good vision for a Telecentre but they have difficulty communicating it to funders and influential people in the community. You will not be able to raise start-up capital unless you can convey your vision clearly and logically. Funders, in particular, are impressed by a coherent and concise proposal.

Establishing the objectives of the Telecentre

Every Telecentre is established with the main objective of providing members of a community with access to computer and telecommunications technology. We have seen that a Telecentre cannot be viable unless it fine-tunes this broad objective to suit the needs of specific community groups. This process is one of the critical roles of the Telecentre's Steering Committee.

In the sections below, detailed attention is given to conducting a community audit and identifying possible target or focus groups for Telecentre services. Obviously, this information is critical in guiding the formulation of a Telecentre's objectives.

A Telecentre's objectives will also expand or shift over time. As user patterns become clearer and users become more and more empowered and skilled, the Steering Committee will make further decisions on the most appropriate groups for the Telecentre to serve and the most productive operating hours.

Initially, objectives will be determined by the answers to questions such as:

- What are the needs of the community?
- Approximately how many people are going to use the Telecentre?
- Which is the key target group?
- What services will be offered?
- What networks or partnerships with other organisations exist or can be developed?
- How much money is available for running the Telecentre?
- How many paid staff will there be?
- How will staff be recruited?
- How many volunteers can be relied upon?
- How many hours of the day will the Telecentre be open?

It will not be possible to make an exact list of objectives without knowing the answers to these questions. A clear set of objectives is essential to convince users, potential partners, and most important, funders. A good business plan hinges on a very clear set of objectives.

Some important considerations

The information you will gain through the **Community Audit** described below, will provide you with an indication of how to ensure the sustainability of the Telecentre in your community. So that you can match the type of Telecentre and its operations with the community more clearly, you should pay special attention to the following:

- **Relationships with organisations in the area**

Telecentres are more likely to thrive if they are located in communities where existing organisations are supportive and prepared to make a contribution. If a community organisation or a local business is prepared to offer free premises, volunteer workers, or perhaps even to pay the Co-ordinator's salary for the first year of operation, this indicates that the community is willing to support the Telecentre and the start-up costs required will be reduced.

- **The range of services offered**

Your analysis of the information provided through interviews and your survey will give you a clearer idea of the number of potential paying users (whether individuals or organisations), and the kinds of services in demand. You should also get an idea of how much people in the community can afford to pay to use the Telecentre services and which services to capitalise on. All of this information must be included under the marketing strategy in your Business Plan. If you are sensitive to the needs expressed by the community, the Telecentre is more likely to be supported by the community.

Sometimes a co-operative relationship with other organisations might influence the range of services provided, especially if the costs of providing services are shared. One Telecentre in South Africa's Northern Province, GaSaleka, has developed a working relationship with the local Technikon as its students are frequent users of the Telecentre.

- **The distance between Telecentres**

In general, a Telecentre is likely to be required by a community if there are no similar facilities within half an hour's walking distance. The Universal Service Agency in South Africa uses the half-hour's walking distance as a guideline. In other countries the guideline may be the number of kilometres between similar services. The guide that is often used is a distance of 3 to 5 kilometres. Other factors will also need to be taken into account such as the type of services required as compared with services offered elsewhere, and the density of the population.

For simple telephone shops in urban areas, the recommended distance may be shorter. For example, in downtown Dakar, the capital of Senegal, Telecentre operators can be licensed to open a basic Telecentre as long as there is no other Telecentre operator within 500 metres.

- **Starting with a pilot programme**

The Steering Committee might decide to test a programme by first offering a limited number of public access hours to see whether it has made the right decision of giving priority to a specific sector. Suppose the results of your interviews and your survey indicate that a large number of adults in the community are looking for literacy training, or that there are a number of young people wanting to enrol in distance education courses. It might then be worth running a small pilot to better understand the information needs of these sectors of the community.

A pilot programme can be as small as three computers based in a local community centre, a church hall, or the entrance to a public library or local police station. It can be supervised by volunteers. After six months or so you will be able to see:

- the demand for services
- whether users would be interested in any additional services
- what the favoured operating times are
- what kind of marketing and outreach strategies are needed
- the number of local organisations that are likely to bring classes or groups to the Telecentre, and the size of those groups.

A pilot programme will also allow time for participants to become familiar with the equipment and with the idea of having a Telecentre in their community.

- **Assessing community income levels**

In some communities where there are very high levels of unemployment and little income, a full-service Telecentre may not be able to cover its start-up and operational costs unless it has a very clear focus and is connected to an existing organisation which is strongly needed in the community and which receives on-going donor funding.

For example, an organisation working with victims of HIV/AIDS may have a critical role to play in starting a Telecentre and because of this, may receive on-going funding from the government or from an international development agency. It might be possible to establish a Telecentre in partnership with such an organisation. Such a Telecentre could create for itself a critical role in spreading information on behalf of government and large international health and welfare agencies. Its target user groups could be medical professionals, primary health care workers, victims of HIV/AIDS, policy makers, and possibly even AIDS orphans.

It is predicted that by the year 2010, there will be 45 000 AIDS orphans in sub-Saharan Africa. How will these children access information and support? Some international agencies may be interested in funding a Telecentre which aims specifically at empowering this group to communicate with others like themselves elsewhere in Africa, and to access information and materials which will help them to survive.

Each of the sections below describes the various areas that will have to be researched in order to produce the information needed for the Business Plan – the community needs, the services to be provided, the computer and telecommunications software and hardware, and the location and premises of the Telecentre.

3.3.1 THE COMMUNITY AUDIT

The first step in developing a business plan for the Telecentre is to carry out a more detailed assessment of the level of demand for the various Telecentre services and the various options for obtaining the required equipment and services to get it started. This is usually called a **Community Audit**.

A community audit is needed to:

- Determine the size and needs of the Telecentre's target market.
- Create awareness and involve the target market in the process of building local ownership.

- Learn about competing or related initiatives.
- Establish who are the key people, institutions or projects in the community that can participate in the development of the Telecentre.
- Establish which development and educational projects exist that can benefit from information and communication services.
- Find out if there are any local investors or other sources of funding.

STEP 1: List all the local institutions and organisations which are most likely to be interested in the Telecentre

Your Steering Committee will help you to compile this list. The list should be as comprehensive as possible. It will probably include some of the following:

- Schools
Public and private schools, pre-schools, primary schools, crèches, community schools.
- Secondary educational institutions
Technical colleges, universities, distance education institutions, commercial and secretarial colleges.
- Libraries and museums
- Local business and workers' associations
Sewing or craft producers groups; Chambers of Commerce; trade unions; professional business associations, hawkers associations.
- Manufacturers or businesses
Industries, co-operatives, financial institutions such as banks and building societies, travel agents, restaurants, businesses of any kind.
- Religious institutions and associated special interest groups
Councils of Churches; churches of all denominations; religious associations; church counselling services; feeding schemes, etc.
- Community-based organisations and NGOs
Youth clubs; service organisations; micro-credit schemes, clinics; shelters for abused women and homeless people; literacy and adult education programmes; cultural clubs or associations; arts councils; traditional leadership structures; ratepayers associations; street committees; recreation centres; civic organisations; etc.
 - Press and media
Local newspapers; community radio stations; the public broadcaster; magazines; advertising agencies; billboard companies.
 - Government-affiliated structures
Local government structures; provincial or national government structures, police station, post office, etc.
 - Health care institutions and health policy organisations
Hospitals, clinics, doctors, nurses.
 - Local or regional telecommunications and Internet Service Providers

STEP 2: Conduct interviews

With Key Structures in the Community

It is always useful to begin by setting up appointments with people who represent key structures in the community. You should begin by interviewing representatives of the groupings which you and your Steering Committee consider to be most influential in the community. The list will vary from community to community, although it is usually important to include representatives from the above list.

You may begin by conducting interviews with major businesses, local government structures and education and training organisations and go on to interview farmers' associations or health workers' associations and other community-based organisations. Later you may decide to interview church groups, the owners of crèches or informal pavement shops or members of the local burial society. It is important to make contact with as many people in the community as possible. Everybody in a community is a potential customer and the more people who know about the Telecentre the better.

House calls to ordinary members of the community

Although house calls are time consuming, they can provide valuable insight into the number of people in the community who will support the Telecentre, as well as give an idea of how many women, how many students, how many professional people, etc. there are in the community.

An example of how to conduct and follow up an interview

1. Introduce yourself and if possible mention the name of the person who gave you the contact information.
2. If you are making contact by telephone, make an appointment to meet the person, if possible. If the Telecentre premises have been established or if it is in its pilot phase, you can invite the person to visit the Telecentre. If the person is not able to meet with you, you might ask him or her when it would be convenient to ask some questions about the proposed Telecentre on the telephone, or ask the person to refer you to another senior person in the company or organisation.
3. Describe very briefly your plan to develop a Telecentre. The Steering Committee can help you work out what to say.
4. Describe very briefly the reason for making contact (i.e. to explore the possibility of obtaining space for the Telecentre or sharing programmes or assets, or to find out the amount of interest in the Telecentre and to get an idea of what services the organisation would be interested in.
5. Find out how the person may be interested in assisting you.
6. List briefly the other resources the Telecentre is interested in obtaining.
7. Ask for referrals to other people and institutions that might be interested in assisting.
8. Thank the contact for the time and for whatever assistance has been suggested or promised.

The follow-up

1. Fill in the information on a contact sheet.
2. Follow up any referrals you may have been given.
3. Write a short note to thank the person and describe the steps you have taken as a result of the meeting.
4. Make sure the contact receives an invitation to the launch of the Telecentre.

STEP 3: Review existing resources

The Telecentre's Steering Committee will need as much information about the community as possible in order to determine the nature of the programmes to be offered by the Telecentre. The success of Telecentre services will largely depend on how well it complements existing activities within the community, and addresses the interests and needs of the community which are currently not being met.

You will need the following type of information:

- The size and density of the targeted population.
- The distance to the nearest public phones or other Telecentre.
- The nature of the population, i.e. a breakdown by age, sex, ethnic background, educational background, language of choice, etc.
- The proportion of employed to unemployed people the average income level the predominant types of employment or occupation.

You can get information from:

- Official statistics from local government departments, housing authorities, the local police, or educational institutions.
- Community surveys conducted by NGOs or other agencies in the community.
- Steering Committee members may, because of their positions in local organisations, be able to get access to surveys conducted by municipal or civic organisations.
- Representatives of local government agencies may have knowledge of data sources through reports submitted to their offices.
- Key community leaders and the directors of other community service organisations may be able to provide useful information.
- Various groups in the community may be able to give useful information, such as pensioners' groups, trade unions, unemployed peoples' groupings, school governing bodies, the owners of local crèches, women's co-operatives, etc.

The point of getting this information is to give you a good idea of how many people there are in the community, what organisations there are in the community, how much space the Telecentre needs, what services to focus on and for which target group, and where the Telecentre should be placed so that it is easy to reach for the target group and the highest number of people in the community.

If, after exploring the above methods, the Steering Committee still requires additional information, a *formal community survey* using a questionnaire may be necessary.

STEP 4: A formal community survey

Your survey should be as accurate as possible about the needs of the whole community, as the future of the Telecentre could be jeopardised by an inaccurate analysis of community interest.

The survey should be as thorough as possible. Ideally, it should involve three stages:

- Stage 1** Direct personal interviews (analyse results/amend questions if necessary).
- Stage 2** Trial questionnaire (sent out to a sample of the population then analyse and amend if necessary).
- Stage 3** Formal questionnaire (analyse the results and use this as the basis for the business plan, the equipment list and the marketing plan).

(Although these three stages are recommended, they may not be possible or necessary for any one of a number of reasons.)

The questionnaire

Note:

It is important to compile a questionnaire, even if many people in your community are unable to read and write. Why? Because a questionnaire contains important questions and the answers to these questions are critical to the long-term sustainability of a Telecentre. If people cannot read and write, they can be interviewed and the very same questions can guide these interviews. Don't underestimate the value of face-to-face interviews. History books (or interactive web sites) can be made of these interviews!

You can send a written questionnaire to residents, church groups, industries, government departments, Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs). The advantage of this approach is that it creates community awareness about the Telecentre.

In a community where there are many people who cannot read or write well, it is probably preferable to speak to people face-to-face. However, whatever your approach, your questions need to be well designed so that you get the information you need.

If you decide on a questionnaire you will need to develop a standard set of questions to make sure the information you receive can be easily assessed.

A formal questionnaire should begin with a description of the background to the survey. For example:

Background Information

The initial public meeting to discuss the concept of a Telecentre. This will include information about the date of the meeting, the place where it was held, who attended and what was discussed.

The impact a Telecentre could make on the community.

Reasons for the survey.

Information about the organisation of the Telecentre. This will include details about membership fees and the location of the Telecentre if this is already known.

The range of equipment and services that will be offered.

Include notes on how to complete the questionnaire

You should include general instructions and notes on how to complete certain questions to ensure that you get all the information you require. For example, you might invite the respondent to include their whole family when they answer the questionnaire, or their whole community group.

List the services you will provide

After this section, make sure you list the kinds of services you intend to provide and ask the respondents to give an idea of which services will be most useful to them. For example:

How often over the next year will you use these Telecentre facilities? Mark your answer with an X.

	Frequently	Occasionally	Never
Phone & Fax			
Internet			
Education and Training (General)			
Computer Training			
Word Processing			
Photocopier			
Library			
Weather Forecast Information			
And so on...			

Questions should be clear

Make sure your questions are clear and easy to understand. If questions are ambiguous you will not be able to get a clear result. Ask somebody from the community to check your

questions for you. Make sure that you only ask questions which you really need to ask. People are often put off by a very long questionnaire.

Decide how to ask for the answers

You may need to ask respondents to answer questions in different ways:

1. Supply specific information	How often would you come to town?
2. Choose an answer	Which of the following services would you use? Please circle the appropriate service.
3. Assign a value.	Please give these a rating out of 5, with 5 being the highest rating.
4. Indicate the relevance	This is similar to assigning a value, but respondents are asked to tick boxes instead of giving numbers.

Begin with simple questions

Always start the questionnaire with simple questions and leave the complicated questions till last. People may get put off if they have to tackle difficult questions at the beginning of the questionnaire.

Personal Information

At the end of the questionnaire it will be useful to include a section for personal information. For example, male/female, age group, education, profession, how many people in your household? This information will help you to check that you have had a response from a good cross-section of the community. This will help you with marketing the Telecentre. For example, if a number of women say they want to learn how to market the goods they sew, this will give you an idea of what kind of information to look for.

Invite people to give their comments

Provide a space for comments, including suggestions on additional services that the Telecentre might provide.

Summary

There are likely to be 8 parts to your questionnaire:

1. Reasons for the survey.
2. Background to the Telecentre proposal.
3. Title of the survey.
4. Notes on how to complete the survey.
5. Questions and answers.
6. Section for personal information.
7. Opportunity for personal comment.
8. Information on how to return the questionnaire (including a deadline and an address).

Note

Now that you have completed your questionnaire, test it out on a sample group of people to make sure you are getting the responses you need and that the information makes sense to others as well as to yourself. At this testing stage, also ask people for the following:

- any general comments

- anything they wanted to say about the topic that the questionnaire did not let them say
- if there were any questions they would like to see added
- if they have any suggestions for improving the questionnaire.

From these responses, make any changes you feel are necessary before sending out the final questionnaire.

Issues and suggestions for improving questionnaires

1. Don't be disappointed if not all the questionnaires are returned. The return rate of questionnaires is always disappointing. If 60% of your questionnaires are returned, you will be doing well. A good response takes hard work and persistence.
2. At the initial meeting tell everyone to expect a community survey. Stress the importance of the survey for the Telecentre.
3. Set a target date for questionnaires to be returned and give people frequent reminders through:
 - the local newspaper
 - billboards
 - the local radio station.
4. Send a letter with the questionnaire explaining why it is important to get an idea of what the community needs.
5. Send a stamped, self-addressed envelope or a pre-paid envelope with the questionnaire.
6. Make it easy for people to return the questionnaire by setting up collection points. These may be
 - at a local school
 - at the local shop
 - at the bank or the post office.
7. Introduce a competition with prizes for the first people to return the questionnaire. Prizes could include free membership of the Telecentre for one month. Or you might ask an organisation or company in the community to donate a prize in exchange for advertising on the questionnaire.

Analysing the results of the questionnaire

When you have completed your survey, you should end up with:

- A list of community resources, including individuals, service agencies and institutions. This list should be updated from time to time so that you can identify new partnerships, possible collaborations and new resources that you might need.
- A report or spreadsheet of community demographics and an overview of the needs expressed by the community. This should also be updated from time to time.

In order to develop the Business and Marketing Plan (described below), you will need to do an analysis of the client base for services offered by the Telecentre. For example, you could analyse your information in a table by marking with a score of 0 to 9 (9 is the highest score) those sectors that have expressed the greatest interest in different categories of service provision.

Your table might look like this:

	Business Sector	Education Sector	Health Sector	General Community
Educational Services	5	9	6	9
Secretarial Services	9	2	5	4
Photo-Copying Services	9	9	5	9
Telephone Answering Services	8	3	9	6
Fax	8	7	8	7
Computer Literacy	8	8	8	9
Recreational programmes	1	4	2	9
And so on...				

The highest scores will show you where there is the greatest need and interest from the community. If your primary target group is people from the education sector (teachers, students, etc.), then it makes sense to give special attention to meeting this sector's needs, but you should also ensure that services are provided for other sectors. This analysis will be particularly useful for scheduling Telecentre programmes and for marketing the Telecentre when you are targeting the customers who are most likely to use the services, as well as for obtaining funding from donors and other sources that support these sectors. In order to complete the analysis you will need to give some thought to whom **could** use a particular service even if they are not familiar with the service.

The information you get from the questionnaire should be used with data from existing Telecentres to form strategies for the first year of operation. The way you do the budget, marketing, and equipment list will depend on the expected use of the services.

You will have identified the most popular services from the survey. This indicates which items of equipment are most important. Services, which are not popular, may still be offered, but you do not need to give them such high priority when you purchase equipment and plan for maintenance and the allocation of the Telecentre Co-ordinator's time.

The use of low-priority services should be closely monitored over the first year of operation. If a service becomes more popular, you can give it a higher priority. Customer surveys should be carried out at regular intervals to ensure that you continue to meet your clients' needs.

3.3.2 CHOOSING THE INITIAL TELECENTRE SERVICES TO BE OFFERED

Telecentre Services are determined by community needs: A Telecentre should be capable of providing most of the information and communication requirements of the local population. For example, Telecentres can serve as information and communication learning centres for farmers, students, professionals, entrepreneurs, NGOs, community leaders and other members of the community, including disabled people.

Although it is advisable for a Telecentre to develop an initial focus, it is more than likely that as the Telecentre expands, focus areas may change or broaden. It is wise not to try and accommodate every need or interest at first, but to leave room to respond once usage patterns emerge and active participant needs can be identified.

3.3.2.1 THE RANGE OF POTENTIAL SERVICES

Here is a basic list of the potential services that a Telecentre could offer. Some of these services are specialised services and most Multi-purpose Telecentres will start out by offering only a few of these services.

- **Telephone calls** (make calls, receive calls).
- **E-mail and Internet access** (send/receive e-mail, browse the web).
- **Word processing** (typing and formatting of letters, job applications and other documents).
- **Desktop publishing** (newsletters, flyers, stationery, business cards, tickets, circulars, pamphlets, logos and computer artwork).
- **Spreadsheets and databases** (financial budgeting, bookkeeping, invoicing and farm management).
- **Computer use** (hourly or daily rates can be charged for this).
- **Education and training** (distance education, tele-learning, face-to-face Adult and Community Education).
- **Computer training** (basic computer literacy - keyboards, mouse, Windows etc., computer applications: spreadsheets, e-mail, word processing. etc.).
- **Graphic design** (assist with presentations, assignments, adverts).
- **Printing** (laser printing and copying for promotional materials and presentations)
- **Web Page design** (have your own personal "home page" designed, launched and regularly maintained through the Telecentre)
- **Professional writing** (Prepare grant applications and funding submissions).
- **Scanning** (scan pages of text or graphics (including photographs) for use in a newsletter, e-mail or for printing).
- **Photocopying** (school study material, circulars, newsletters, licence applications, etc. with different coloured papers available).
- **Binding** (for professional presentation of documents and booklets).
- **Laminating** (protect documents, business cards, posters, by sealing them in a durable clear plastic coating).
- **Fax communications** (send and receive documents to and from anywhere in the country or the world).
- **Business and secretarial services** (the Telecentre could act as a message service).
- **Service directories** (development of a local community phone directory - this could be printed out on paper as well as be in electronic format).
- **Video conferencing** (two-way audio and video conferencing with other regions).
- **Video or still camera hire** (daily or weekly hire of photo/video recording equipment for private, professional, business or community events).
- **Internet searches** (have Telecentre staff research your topic on the Internet for study, business or pleasure).

- **Information services** (for example, a Telecentre can act as an employment agency, and advertise vacancies and staff availability. Government information, up-to-date local and world news, market prices, trade opportunities, classified advertisements and other information of interest to the community can also be made available. These can be made available online and also printed out and fixed to the bulletin board outside the Telecentre.)
- **On-line banking facilities** (financial institutions now make it possible for customers to conduct their financial affairs electronically. A Telecentre can help users to access the services offered by their bank).

Note: For information on the equipment required to offer these services, see the section on *Acquiring Equipment*.

3.3.2.2 PROCUREMENT AND DELIVERY

A relationship with a delivery or courier company or a Post Office can be established so that the Telecentre provides a drop-off and pick-up point for goods in their area as an additional way of earning revenue. For this the Telecentre will have to be able to make electronic payment for goods, so the Telecentre bank account should be at a bank providing electronic banking services (if available).

3.3.2.3 SALE/RENTAL OF ADDITIONAL PRODUCTS

Further income for the Telecentre can be obtained from the sale of products such as pens, stationery, camera film, rental of videos, etc. A relationship with a supplier who can provide goods on a 'sale-or-return' basis could be established.

3.3.2.4 SPECIALISED SERVICES

Specialised services may be added as the needs of the community become clearer, and in response to requests. When a Telecentre generates sufficient income to cover all its costs and still make a reasonable profit, it will be able to sustain additional services. A Telecentre should always be open to new opportunities and always be sensitive to the needs of the community.

Apart from the services described above in point 1, some communities may be interested in the following services which have the potential to increase a Telecentre's revenue:

- Distributing pamphlets and promotional material for small businesses
- Production of community calendars
- Telemarketing for small business entrepreneurs
- Tourism and information services.

Note: Of course, it will only be possible for a Telecentre with enough members of staff to undertake this kind of work. Most Telecentres start out with a Co-ordinator (or Manager) and a team of volunteers, if they are lucky!

3.3.2.5 SCHEDULED PROGRAMMES AND TRAINING COURSES

Most Multi-purpose Telecentres will plan programmes around a number of the following:

- Public access and/or open-lab time
- Internet access
- Pre-school and family activities
- After-school activities
- Adult education
- Career development and job preparation
- Job placement
- Electronic publishing
- Electronic commerce.

Public Access allows community members the opportunity to use computer and communications technologies to explore their own interests, develop skills, and discover what the computers and other technologies can do.

Open Lab Time allows students already involved in formal classes to practice what they are learning or to explore their subject further.

Computer Literacy Training Courses. In many communities, where the services offered by a Telecentre are completely new to most community members, a Telecentre will need to offer computer literacy training courses. The key elements of these courses are:

- Basic word processing and office software
- Computer hardware maintenance
- Internet access and computer networking
- Web site development.

Some considerations for Multi-purpose Telecentres offering Public Access or Open Lab Time

- To ensure that Telecentre services are not only used by one age group, it may be necessary for a Telecentre to set aside different hours of the day for children, for teenagers and for adults. To do this, the Telecentre will need to have open hours in the evening as well as during the day.
- It is advisable to provide introductory programmes for the most popular software applications - word processing, spreadsheets, etc. There is a lot of material available on-line e.g. Itrain (<http://mail.bellanet.org/itrain>).
- It is important to ensure that there are enough staff or volunteers present to support the different Telecentre users in peak user times. There should be at least one support person for every ten users.
- If public access time includes Internet access, the Telecentre will need more than one telephone line. Special rules, which limit an individual's user time, may also need to be introduced.

Internet access

Access to the Internet is a key service offered by a Multi-purpose Telecentre. Various types of access can be provided:

- Monthly subscription (or as part of Telecentre membership fees) for drop-in e-mail access with own e-mail account.
- Sending e-mails for people who are not computer literate, using the Telecentre's e-mail account.

- Web browsing. This should include access to a tailored web site guide to on-line resources for the local community. If the Telecentre has a dial-up Internet connection that needs a long-distance call to the Internet Service Provider, then these services will probably not be used much because of the cost of the telephone calls.
- Other Internet services such as: IRC/ICQ, radio/audio services, FTP and USENET News access. (Same restrictions as the previous item).
- Assisting local businesses, NGOs and public institutions to establish a presence on the Internet. This will normally consist of designing and writing web pages and brokerage for remote hosting on a web site, unless the Telecentre has its own server. Hosting should include registration on indexing services and full text search tools.
- E-mail to fax services. This can include very low-cost access to international faxes via remote e-mail-fax gateways in the destination countries.
- E-mail to post services. Same as the previous point and it is also more reliable than normal mail.
- Dial-up e-mail accounts (for areas where there are a significant number of computer owners and no other local Internet service provider). This requires the Telecentre to operate its own Internet server and dial-in modems/phone lines for the users to connect to, and therefore will require a technical support person available locally.
- Wireless and leased line access for larger local organisations.
- Internet training courses for individuals and groups.
- Video conferencing and voice-over IP services.

Most of the Telecentres which offer Internet access have found that the main attraction for users is either e-mail or self-publishing (developing a personal web page).

Experience indicates that users who have not had computer access need to begin to feel comfortable with other computer applications before they can use the Internet. For this reason a Telecentre with Internet access should plan to offer introductory courses aimed at equipping users with basic computer skills.

Pre-school and family programmes include:

- Times when parents can bring young children to the Telecentre and work with them to explore appropriate software such as drawing, animation, and learning games.
- An opportunity to develop partnerships with local schools or day care programmes in the community.

Some considerations for Multi-purpose Telecentres offering pre-school and family programmes

- Young children cannot concentrate for long periods of time, so sessions should be short – half an hour to 45 minutes at the most.
- Young children may not be able to reach the keyboard or the mouse from the height of an ordinary chair. If you don't have adjustable chairs you may need to use cushions or telephone books for the children to sit on.
- Parents will probably need some guidance to use the software so that they can work effectively with their children. Plan an introductory session or two for the parents.

After-school activities

These activities can be structured for different age groups or offered as open-lab time for children and students. In addition to giving schoolchildren an opportunity to learn skills with basic computer applications, some will enjoy:

- **Subject-Area Activities.** Commercial software can be obtained which helps children with homework and offers tutorials in subjects such as reading, maths, science, and other subjects.
- **Games.** Games can be effective tools for getting children and young adults interested in learning more about computer technology. Games should be carefully selected in discussion with teachers and parents.
- **Exploring the Internet.** Once children understand basic computer skills, they will probably be interested in learning how to use the Internet for research or for communicating with other children and youth in other areas by e-mail.
- **Multimedia Publishing.** This involves designing personal web pages, constructing family or community profiles, or creating project reports for school or community projects.

Some considerations for Multi-purpose Telecentres offering after-school activities

- It is important for the Telecentre Co-ordinator and staff to know every child and to make child and youth users sign in and out.
- Make sure all children know the rules of the Telecentre and where to find what they need.
- Young people working alone need a lot of attention. Encourage one or more to work together at a computer to facilitate peer tutoring or collaborative learning.
- Assign children with more skills and knowledge to work with those who are less skilled and knowledgeable.
- Provide plenty of space for children to keep their schoolbags and other belongings.
- It may be possible to offer students discounted access to the Telecentre services through various NGO and government education support programmes.

Adult Education

To establish a comprehensive adult education programme, a Telecentre will probably need to work in collaboration with an organisation in the community that is already offering adult education programmes. Adult education may include:

- *Adult Basic Education (ABE) classes.* These classes teach adult students how to read and write and do basic arithmetic.
- **Life-Long Learning Opportunities.** This includes extension courses through higher education institutions or universities.
- **Basic computer training.** Workshops on basic computer training teach adults to use the keyboard and the mouse, and how to use basic office applications without assistance.

Some considerations for Multi-purpose Telecentres offering adult education.

- Adults often bring their children with them. The Telecentre should aim to develop simultaneous activities for children and/or a play area for them.
- Some adults prefer to learn with other adults rather than with youth or children. The Telecentre should aim to set aside teaching time specifically for adult instruction.
- The Telecentre should structure hours to accommodate working adults.

Services for the elderly

Older people may need or enjoy the following activities:

- Telecommunications and email contact with relatives or friends.
- Telecommunications and CD-ROM-based travel explorations.
- Financial planning assistance.
- Health care, social welfare and other services information.
- Mentoring young people.
- Games such as chess or backgammon.

Some considerations for Multi-purpose Telecentres offering services for the elderly

- The elderly might prefer to learn about computers with other people of their own age. It may be possible for a Telecentre to offer specific training sessions for pensioners if there is enough interest from this sector of the community.
- If there are enough pensioners who are interested in working with young people, a Telecentre may set up a group of elderly volunteers to help during the sessions for children and youth.

Career Development, Skills Acquisition and Job Preparation

As with adult education, a focus on job preparation will most likely mean that additional non-computer space is needed, as well as specialised instructors with experience and qualifications. A Telecentre wanting to provide job preparation services will most probably have to develop a partnership with an NGO or service organisation, which deals with career development and job preparation.

Job skills training includes classes for basic computer literacy; keyboard skills; typing/word processing; graphics applications; spreadsheets; databases and other office skills.

Job search activities include how to compile a CV; interviewing skills such as what questions to ask and what is likely to be asked; how to dress; workplace behaviour; and how and where to look for a job.

Some considerations for Multi-purpose Telecentres offering job preparation programmes

- If a job preparation programme is to be successful, it must match the jobs available for those who complete the programme. If a Telecentre intends to focus on job preparation, the Steering Committee should liaise with government departments, employment agencies and other service agencies so that the training offered matches job opportunities in the community. The selection of software will be determined accordingly.
- As in the case of adult education *job placement* should be undertaken in collaboration with an existing community service. If a Telecentre offers job placement as a supplement to a *job-training programme*, it will be playing a similar role to an employment agency.

Business Services

Many different business activities can be carried out at the Telecentre, such as e-commerce, outsourcing, small business support, self-employment, and entrepreneurship.

- **E-commerce** usually refers to the purchasing and supply of goods and services via the Internet, but this can also be done over the telephone. These services can be provided in two ways:
 - a) to make purchases and act as a delivery point on behalf of the public and businesses, and
 - b) to receive payments on behalf of the public and businesses for goods and services they provide. This service is usually connected to the hosting of an e-commerce web site where remote users make purchases. Many ISPs (Internet Service Providers) provide e-commerce hosting facilities, so it is generally not necessary for a Telecentre to operate one. The telecentre could however develop a relationship with an e-commerce support agency such as PeopleLink which helps rural communities sell their crafts on the net (www.peoplink.org).
- **Outsourcing** is when a Telecentre is hired by an organisation or business to perform a task on behalf of that organisation or business. The Telecentre may offer to take on payroll processing; keyboarding/data entry/data capture services, data processing; preparing an inventory of equipment; or evaluating the services offered by the organisation or business. These and other tasks may be performed for local businesses, local government departments and agencies, community-based organisations or schools. If individual Telecentre employees take on this kind of work, the revenue earned can be shared with the Telecentre. Access to the Internet makes it possible to provide these sorts of services internationally (often at far more competitive rates than in developed countries).
- **Small business support** Telecentres can offer to make computers available for accounting, tracking information and services, invoicing, advertising, etc.
- **Self-employment.** The Telecentre may allow users to design fax sheets, produce brochures, give technical assistance to establish a computer system and create homepages on the Internet. Instead of a usage fee, individual users who use Telecentre equipment for these purposes could pay a percentage of their earnings to the Telecentre.
- **Entrepreneurship** is a business activity created by a Telecentre member or former member in which the person establishes a business at home or at another location using skills learned at the Telecentre.

Some considerations for Multi-purpose Telecentres providing business services

- The Telecentre will need experienced operators and a full range of modern office equipment and software in order to compete in the marketplace for these services, and the services will have to be very reliable.
- Young adults could work with the Telecentre in fulfilling business contracts, learning business skills, and developing relationships with the business community.
- Both the Telecentre and individuals are able to make money. The Telecentre may need to develop a system for sharing profits.

When you are making a list of the services to be offered, it might be helpful to draw up a table to help you to think clearly about your vision for the Telecentre:

User Group	Service to be offered	Equipment required	How will this service be charged for?	How will this service be marketed?

3.3.2.6 CHARGING FOR SERVICES

All the services a Telecentre offers must be carefully and individually costed and priced. It is important to check what other Telecentres are charging for services and to carefully calculate what resources you need for each task, including the amount of staff time. Ideally charges should be such that even though the Telecentre is making a profit, the costs of the services can be afforded by small community groupings and large community education projects; large businesses and small entrepreneurs; and government departments and state institutions.

Different membership fees can be charged according to different categories of users. For example, very frequent users or students might get a discount or pay a flat monthly rate, e.g. for e-mail. Normally individual training will cost more than group training.

Here is a general set of categories, which can be used to define the way services can be itemised:

Annual Telecentre Membership (Membership could provide discounted services, priority access, e-mail address/web page etc.)

- Personal member
- Concession (students, retirees etc)
- Family
- Business
- NGO/CBO
- Government department.

Telephone

- Per unit
- Local
- National
- International
- Peak (daytime rates)
- Off-peak (evening rates).

Computer Assisted Training

- Per hour for individuals
- Per day for individuals
- Per hour for groups
- Per day for groups

Photocopying

- A4 Single-sided
- A4 Double-sided
- A3 Single-sided
- A3 Double-sided

Printing

- Text
- Graphics
- Full page colour
- Copy printing single-sided
- Copy printing double-sided

Different prices for A3/A4/A5 paper size.

Faxing

- Send 1st page – local
- Send 1st page – national
- Send 1st page – international
- Send additional page
- Receive 1st page
- Receive additional page

Computer Access

- Per half-hour/hour
- Per day

Internet Access

- Per minute
- Per hour
- E-mail - per message
- Per month

Word Processing

- Per page
- Per hour

Desktop Publishing

- Per hour
- Per page
- Curriculum Vitae (full)
- Curriculum Vitae (1 page)
- Certificate (in folder)
- Certificate (no folder)
- Invitations
- Funeral programmes

Room Hire

- Per hour
- Per day

Scanning

- Greyscale
- Colour
- On disk
- Printed
- On CD-ROM

Laminating

- A4
- A3

Secretarial Services

- Per hour
- Per message
- Per day
- Per month

Other

- Folding (per 100 pages)
- Video tape hire
- Tape dubbing
-

3.3.3 COMPUTER SOFTWARE

(Note: Don't be concerned if you don't understand all the technical details in this chapter which list a Telecentre's software and hardware needs. When the time comes, you will in any case need help from a computer expert who will see that you get what you need on your "shopping list".)

A Telecentre's budget, the number of computer stations it has, the number of hours it is open to the public and its primary user group will influence software purchases. It is always best to start off with a small amount of additional software in different categories and to expand as the needs of users become clearer.

3.3.3.1 THE BASICS

Apart from the standard Internet and Office application software, it is best to decide which software packages are needed after the Steering Committee has decided on the target group and programme focus of the Telecentre. If the Co-ordinator of the Telecentre has already been appointed, he or she should be involved with the planning and purchasing of software and hardware. There is always new software coming onto the market and this makes selection difficult. This is especially the case with educational software, where new programmes are available almost daily.

A Telecentre should aim to keep all its costs as low as possible at the beginning. “Applications” software or “business applications” software, such as a word processor or spreadsheet, is usually needed for a Multi-purpose Telecentre right from the beginning. Much existing software is based on combinations and variations of the basic tools, and good instructors can find ways to use these tools in many different ways and for many different target groups. For example, basic applications software may be used creatively and effectively for adult literacy, job training and job seeking, pre-school education, assisting students with homework, virtual travel and group projects, etc.

Although it may be necessary to have one or two full commercial office application suites, several companies sell a number of programs in one software package. For example, Microsoft Office contains Microsoft Word, Excel, and PowerPoint. Computers are often preloaded with a variety of software packages. The public domain Linux operating system comes with free packages such as Netscape, WordPerfect and StarOffice (like MS-Office). The SchoolNet Programme in South Africa is using a public domain e-mail software package called Taxis. For older PCs that have trouble running the Windows operating system, the New Deal or QNX packages provide a full suite of applications.

Although Telecentre users may not know how to use computers or cannot read and write English, this does not mean that they cannot learn complicated processes. It is not necessary to find programs that are easy to learn, but it is important to find programs that are easy to use. Although there has been much discussion about developing software for different languages, research indicates that users in every country prefer productivity programs with English menus, although users have indicated that they would like recreational software in their own languages. Many free or “Shareware” packages are available to assist users who are not English speakers.

Video conferencing allows a group of people, such as professionals, business people, small entrepreneurs, farmers, educators, students, disabled people, activists to discuss issues of common concern as if they were meeting in the same room. There are many benefits to this form of interaction. However, although video conferencing is an excellent way of holding meetings and saving on transport costs, it is costly and Telecentres should not invest in video conferencing equipment at the start-up phase. For high-quality video conferencing a digital line is required, but these are not often available in rural areas in Africa. However Internet-based video conferencing is becoming increasingly popular. The quality is not as good as standard video conferencing, but you only need to add a small videocam (costing about US\$75) to the PC.

Software checklist for a large Multi-purpose Community Telecentre:

- Anti-virus packages (McAfee, Norton’s, Dr Solomon’s F-Prot)
- Word processing packages (Microsoft Word, WordPerfect, Microsoft Works, StarOffice)
- Computer literacy training software (Mavis Typing Tutor, PC Tutor)
- Basic English Literacy program
- Desktop Publishing (Microsoft Publisher, Corel Draw, Aldus Page Maker)
- Spreadsheets (Lotus 123, Microsoft Excel, Microsoft Works)
- Database (Microsoft Access, Microsoft Works, mySQL)
- Accounting (MYOB, QuickBooks, MoneyDance.com)

- Contacts and Organisations (Microsoft Outlook, Lotus Organiser)
- E-mail program (Microsoft Outlook Express, Netscape, Eudora)
- Presentations (Microsoft PowerPoint, Harvard Graphics)
- Graphic Manipulation (Aldus Photostyler, Adobe Paintshop, Gimp, ImageMagick, Paint Shop Pro)
- Kid's Games (Castle Explorer, Ace Ventura, Where's Wally?, Mutant Penguins, Quest, Nemesis, Cricket, Golf, etc.)
- Networking (Win2000, Wingate, Windows NT)
- Web Browser (Internet Explorer, Netscape, Opera)
- Web page authoring software (Front Page, Netscape Gold, HomeSite, Communicator, AceHtmlPro)
- Video/Audio Conferencing (Netmeeting)
- Photo-editing (Adobe Photoshop)
- Voice recognition software (Dragon Dictate/True Speech)
- CD-ROM Databases (Encarta, Encyclopaedia Britannica, National Geographic)
- Utility software such as packaging applications (WinZip)

3.3.3.2 TEACHING AIDS

Introductory on-screen tours and tutorials

Most software packages include introductory tours and tutorials, which can provide a starting point for learning how to use them.

Manuals and other texts

Software packages usually come with manuals. Additional books and publications are available for the more popular software applications. Although a Telecentre should have a shelf of reference books and manuals, computer assisted training is more effective for new users.

On-screen "Help"

Most programs have an "on-screen" help facility, but most users do not use on-screen help systems effectively, and need personal instruction on how to use the programs. Sometimes users will find it difficult to locate the section in "Help" to solve a particular problem, and they will need help from the staff so that they do not spend a lot of time reading through a lot of difficult text to find what they need.

Audio Tapes

Audio tapes are useful as a "help" tool because the equipment (a walkman or a tape recorder with earphones) is relatively inexpensive and learners can repeat sections of the tape as many times as they like. In addition, a user can keep his or her hands on the keyboard whilst listening to a tape. The major disadvantage is that a tape cannot answer random questions and the user is required to follow a set sequence.

Video tapes

Although video tapes are popular, they may not be very effective as teaching aids because the user has to shift her or his attention from the video screen to the computer screen. The sound of the videos (unless earphones are available) is very distracting for other users. As with the audio tapes, users cannot ask questions about something they do not understand.

Software for first-time users

There are several programs, which are useful to familiarise first-time computer users with the basics, such as the keyboard and the mouse. A computer game such as *Solitaire* is an enjoyable way for users to learn very basic computer skills. Programs such as *Print Shop*, which show a new user how to produce a greeting card, pamphlet, letterhead or personalised calendar are useful because the user is given a sense of achievement in a very short period of time.

Typing tutors

Some users will certainly ask for a typing tutor program, which is an important addition to a Telecentre software collection. The best programs give feedback and automatically provide tests, which are appropriate to the users' skills level. *Mavis Beacon* is a popular program.

Educational Software

New educational software has developed more rapidly than many other software programs, and the philosophy behind the software changes continuously. For example, in recent years there has been a shift in emphasis for educational software programs to give learners more freedom to express their personal ideas and obtain individual feedback. In addition, an increasing amount of educational 'content' is delivered via the Internet, rather than as separate software that is purchased from a shop or supplier.

It is important to note that these programs should be used to supplement traditional teaching, as learners still need the assistance of skilled teachers before they can use them effectively. It is very important for a Telecentre wanting to supplement educational courses, or to fill an educational gap in the community, to work together with the staff of educational institutions in the community and to find out what are the best programs to obtain.

Note: Telecentre users learn best from other people!

Communications software

One of the main aims of all Multi-purpose Telecentres is to provide access to the Internet. Dial-up services will be the primary means of access. Ideally, a Telecentre should be able to access the Internet for the cost of a local telephone call. Unfortunately, Telecentres which are situated far from the nearest Internet Service Provider (ISP), may have to pay the high cost of long distance calls and this is likely to restrict use to e-mail only. Even when the Internet is available via a local call, Telecentres often have phone bills of US\$500-\$1000 a month if there is regular daily use by customers

Later, as the number of users grows, and the Internet Service Providers move closer, leased line services could be added. If there are schools, clinics, or other organisations in the community needing on-line computer and Internet facilities, it may be possible for a Telecentre to provide dial-up or leased line (via cable or wireless) connectivity to these organisations.

To access the Internet, each computer or computer network needs a modem, phone line and an account with an Internet Service Provider (ISP). The best way to provide efficient

Internet communications is to take out a contract with an ISP that is able to provide easy set-up/installation and good technical support.

A Telecentre should always aim to reduce operating costs so that users can pay lower prices for the services. The amount of telephone time used to transfer messages and information must be kept to a minimum. The local Internet Service Provider should provide a Telecentre with:

- **Internet access.** A dial-up PPP account for access to the Internet. With Win98/2000 and applications such as WebClientPro the Telecentre should be able to support at least 4 – 5 simultaneous Internet users. This will depend on the quality of the line, and the speed of the upstream connection from the ISP to the national Internet backbone. With a standard 33 Kbps dial-up link it should be possible for eight or more workstations (PCs/NCs) to be accommodated on the link, as many will not be using it while reading/writing e-mail.
- **E-mail.** A batched compressed UUCP spooled mail account and domain-name per Telecentre for the provision of e-mail will allow the Telecentre to house, manage, and create e-mail accounts locally and optimises the use of the telecommunications link. The server will regularly dial up to pick up and send compressed e-mails. This allows users to work 'offline' at all times on their e-mail, and it reduces the costs of the e-mail accounts. Costs will also be reduced because the compressed UUCP transfer protocol is 4 to 8 times faster than the standard TCP-IP/POP (post office protocol) used by most e-mail clients.
- **Web hosting services.** The ISP or other national web hosting agency can be asked to provide the web sites of Telecentre clients to be established at one central site. Alternatively, some users will be able to use web hosting provided by one of the free web services in the US and Europe.

<p>Note: Careful costing and accounting will be necessary to monitor and charge for Internet access.</p>

Reference materials

Encyclopaedias, almanacs, atlases, dictionaries, etc are available on CD-ROM discs. A good selection of these is a useful addition to a Telecentre's software and information library.

Recreational software

There are a number of recreations programs such as *board* and *strategy games*, *TV games* and *adventure games*, and *eye/hand co-ordination games*. While many games are free, the focus of the Telecentre, together with available finance, will determine the availability of game software.

Screen Savers

Screen Saver programmes are designed to protect computer screens from "burn-in". The best screen saver packages allow you to create your own graphic or pattern. Some Telecentres create personalised screen savers that give information about the Telecentre.

Copyright

All commercial software is protected by copyright. If a Telecentre plans to share software between a number of computers connected by a local area network (LAN), it is important to ensure that the licensing agreement accepts LAN usage.

Where a Telecentre has connections with business or educational institutions in the community, it is possible that those institutions may have negotiated site license agreements that can be extended to the Telecentre.

3.3.4 HARDWARE AND EQUIPMENT

As far as possible, Telecentres should minimize start-up costs and capital investments on computer and telephone equipment and other hardware. It is not always necessary to purchase new equipment. Telecentre Steering Committees should try to obtain donated equipment from local organisations and businesses. There are many examples of Telecentres receiving second-hand telephone systems, photocopiers, computers, printers, filing cabinets and furniture from local, national or international organisations.

The advantages of second-hand or reconditioned hardware

- It is available free or at very low cost (for example, a computer recycling charity in South Africa provides a 'pack' of five reconditioned 486 PCs for US\$1 400).
- Even the oldest PCs can be used for typing – e-mail and word processing.
- Technology is continuously advancing, and what is new in one part of the world today is old technology somewhere else.
- It can sometimes be combined with new equipment and software for advanced functions.

The disadvantages of second-hand or reconditioned hardware

- Some users may think they are not receiving the best available.
- It may not be able to run new software.
- It may be difficult to maintain – to find replacement parts or supplies.

Regardless of whether new or second hand equipment is used initially, it is important to develop a good working relationship with a reliable supplier of computer equipment and software. Preferably, the supplier should be nearby so that support can be provided at short notice if required.

3.3.4.1 THE TELEPHONE SYSTEM

Generally, a Multi-purpose Telecentre will aim to have at least three lines to start with – a voice line, a fax line, and a modem connection for the PC. If the Telecentre is small and phone services are not a big part of the planned operation, then it is possible to start out by sharing a single phone line for all services (voice, fax and Internet). This will not allow simultaneous use by all three and the phone line will have to be carefully shared. As mentioned above, it is possible for 5 to 10 PCs to share the same phone line for simultaneous Internet access. E-mail can be provided off-line via the batched UUCP service, and the phone line need only be used for short periods to send and receive the mail.

If a Telecentre intends to offer telephone conferencing facilities, hands-free and speaker phone facilities are especially useful.

A combined telephone/answering machine unit is an asset to a Telecentre, especially if the Telecentre is only open at certain times during the day. If there is only one staff member, it is not good practice to leave a user who is being assisted in order to answer the telephone.

Redial and frequent number memory storage for one-touch dialling should be used if available. Call-waiting is another useful feature if it is available, since it notifies the caller that an incoming call is waiting.

An additional long-distance cordless phone (2.4GHz) could be made available. With a range of up to 5 km, these phones can be collected from the Telecentre and taken to the household for the call. This should be particularly popular among the disabled, the old and the infirm and may, if successful, require the installation of a second unit. A pre-payment deposit for calls entered on the call accounting system will be necessary for all calls made with the phone to make sure that the costs are covered. Some models show call time on the handset. The Siemens model provides up to eight handsets on the same base station, and they can also communicate directly with each other without using the phone line.

If cell coverage is also available, a mobile cellular telephone could also be used in the same way, using prepaid SIM cards. Because of the high cost of phone calls, cellular links should be avoided if possible, unless a special tariff can be negotiated from the cell phone operator. In some cases where no land-lines are available, cell phones may be the only option for providing communication services.

To lessen the load on staff members, Telecentres which depend on basic telephone access for a large part of their revenue will need to install specially designed call management units attached to telephones. These units give a digital read-out showing the accumulated charge for the call as it is being made. They are usually attached to a call accounting system at the reception desk managed by the Telecentre operator. The phone call accounting system should be able to handle pre-payment or post-payment options and print out the bill for each call. You may need a small PBX or software PBX running on the computer server if you want to provide more than two or three phone lines for customers.

Many public phone services have a number of limitations and only provide the minimum functionality required for the basic call accounting system, and you may have to investigate other options. In this system, a separate meter is used for each line and must be loaded with funds and cleared for each call. You cannot attach it to the cash/transaction register or use it for debit smart cards. Records are only stored for one day and can only be printed out in hard copy at the end of the day in a 'shift report'. If this system is used in a large Telecentre to sell voice calls, faxes and dial-up Internet access, and to track usage over time (essential for business planning), a lot of time and will be needed and there will be inaccuracies.

Call accounting systems normally require a pulse-per-unit service provided by the telecom operator. It is possible to manually load tariffs into the call accounting system, but this requires inputting of rates for every dialling code, including international codes, and must be changed each time the operator changes its tariffs.

Automated systems that interface with a PC-based billing system are available from other countries, but often these cannot use the pulse-per-unit system for call accounting.

3.3.4.2 THE COMPUTER SYSTEM

Many Multi-purpose Telecentres start out with between three to five computers. One machine will normally be a dedicated administration PC that is only used by the Co-ordinator and other Telecentre staff at the point of sale. If possible, at least two more machines should be provided for Telecentre users. It is now possible to purchase standard multi-media PCs for less than US\$ 700. Many Telecentres today are using machines that have a minimum of 6 gigabytes hard drive, 64 megabytes of RAM (random access memory), sound card and a Pentium processor. More detailed recommended specifications¹ for new Telecentre PCs are as follows:

- Pentium 733 MHz CPU
- 64 MB RAM
- 10 GB hard drive
- 52X CD-ROM
- 1 MB PCI video card
- 10/100 BaseT Ethernet port/card
- Sound Blaster-compatible full duplex sound card
- 1.44 MB Diskette drive
- 15" Monitor
- Keyboard
- Microphone
- Speakers AND headphones (to reduce noise)
- Mouse
- UPS (Uninterrupted Power Supply) if the power supply is unreliable. A Surge Protector may be needed to protect electrical equipment and computers from damage caused by power surges and lightning.

When it becomes necessary to increase the number of PCs to accommodate more users, low-cost options for expansion should be explored rather than investing in brand new PCs. For example, it may be possible to add some older, recycled PCs. These may be donated by companies that are upgrading their equipment, or they may even be purchased from computer recyclers at a cost of approximately US\$100 - US\$150. Second-hand PCs may not be able to provide all the services of a full multi-media PC, but they are often adequate for the average Telecentre user who only requires e-mail and typing/word processing functions.

A recent development that will likely have a big impact on Telecentre start-up and operating costs is the Network Computer (NC). This is similar to a PC but has no moving parts and relies on a central server for all its software and data storage. An NC will give you access to all standard applications, and it usually comes with free Internet application software (word-processing, video conferencing, voice mail, spreadsheet, e-mail, web browser and web authoring). Because these machines are simpler to manufacture, they can be obtained and maintained at a significantly lower cost than a standard PC. Most Network Computer set-ups can also provide video and audio when required if there is enough disk storage space. An NT server can also be added to provide access to MS-Office applications.

A South African retailer (TelJoy) is now marketing a Network Computer for US\$300 which uses the TV set as the monitor and accesses the Internet and other applications which are on the Internet Service Provider's server. Stripped-down Windows-compatible 'NetPCs'

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without hard drives now cost less than US\$500 and some Network Computers (NCs) cost US\$200.

The NC products that may be worth considering include:

- The IBM NC 100. These can replace or be added to a standard LAN (Local Area Network) at no change in the cabling. They will require the installation of an AIX or Linux NC server.
- The Corel Netwinder NC, based on the Linux operating system with a range of models. Corel is also providing free versions of the WordPerfect office suite with the NCs, and also as a stand-alone software package for use under Linux.
- The Oregon NC. A complete set-up (less monitors, keyboards and mice) will cost about US\$5 000 for a six-workstation set-up, including high-speed video server and built-in office applications.
- X-Windows or QNX-based thin client software running on standard PC computers (including older 386s and 486) using a low-end Pentium PC Linux server.
- Vistel set-top box for e-mail and web browsing – Vistel is the 6th largest TV set maker in the world. Available from TelJoy South Africa for about US\$280.

The Local Area Network (LAN)

If only two or three PCs are being used at the Telecentre they can be linked with a standard Co-axial Ethernet cable or with a small 4-port hub at low cost.

Later, when the Telecentre expands, computers (PCs and/or NCs) should be linked via a 100 BaseT 16-port Ethernet hub (a 16-port hub is recommended to allow for easy expansion, especially given the small additional cost of 16 ports vs. 8 ports). Then up to a total of 15 PCs (including older or recycled ones) can be connected to the network without any additional equipment. A second hub can be daisy-chained to the first hub for further expansion if necessary. Machines will need 100 BaseT Ethernet cards and 100 BaseT Category-5 (CAT-5) cabling. 100 Base T is specified because it is the emerging standard, which will be able to provide future upgradability for video applications and network computer operation.

Wireless LANs based on the IEEE802.11 standard are also becoming increasingly popular as they allow easy expansion and connectivity that can reach across to neighbouring buildings without the use of any cabling. Currently they are significantly more expensive than a self-installed cable network, but if a company is being contracted to lay cable for a large Telecentre, it may be worth checking out a self-install wireless option.

With the use of a small antenna, buildings up to a few kilometres away can be linked into the same network without any additional equipment, provided they are in line of site. By adding amplifiers, up to 70 km can be reached, assuming they are still in line of site.

In the near future the Bluetooth standard will be used to wirelessly connect devices in an office environment. There are also a number of systems such as Intel's Airlan that uses the buildings electric power wiring to link the PCs in an LAN.

Computer use management systems

Just as with the telephone system, it is time consuming to manually record Internet on-line time and computer usage for short periods and it is prone to errors. To account and bill for access to the Internet and related services, a large Telecentre may wish to install a management/billing system, especially for regular users who come in every day for a few

minutes to check their e-mail. There are a variety of management systems on the market. Some are just software based, and others rely on a hardware solution.

A US product called Cyber-Time that costs US\$500 is a software-only solution running only on Windows PCs connected to a LAN. A better solution might be to use smart card biosign technology to identify and bill the user. This allows roaming ability, ease of use, and greater functionality for the customer (this is more convenient for the user as it contains their login and password, web browser bookmarks and other personalised application information). This also makes it easier for the Telecentre to bill the customer, because the customer only has to be billed each time the account has to be recharged (re-loaded), or when his or her system credits are used up.

With NC technology such as the Oregon system, this is done relatively easily via a built-in smart card reader on each NC. The billing capability is in place, and the smart card identifies the user of the system on the server. This tracks the minutes of usage by the user through the existing administration system and can be programmed to cut off access after a preset time.

An add-on smart card reader and administrative system is available for standard Windows machines from France-Telecom's I-Card division. A smart card is issued to each user and it is charged with the amount of credits the user is given or buys. A US\$200 smart card reader is plugged into the serial port on each PC. The I-Card administration software allows the cards to be recharged (re-loaded) with credits at the rate determined by the Telecentre operator and also controls which applications the user can access. Each software program can be charged for at different rates.

Another possibility is to use one of the growing numbers of public access kiosk systems that have built-in smart card and coin readers. Some also provide a touch screen and printer. Examples include the South African Post Office's Public Information Terminal (PIT), and the US's PatLink System.

Peripherals

The term ***Peripherals*** refers to all the external computer hardware that is not part of the basic PC system package. Although no Telecentre can function without them, even printers and modems are referred to as peripherals.

Printers. Ideally there should be one printer for every 8 to 10 computer systems, all linked together over the LAN (Local Area Network). However in some cases a small Telecentre will operate with a printer attached to a single PC. There is a wide variety of different printers to choose from, and your choice will depend on the type of printing that the customers want. Many Telecentres do desktop publishing work for their local communities. This type of work needs printers that are able to produce commercial, professional-looking jobs. Forget the old dot-matrix printer – its quality is too low.

Printers available on the market include:

- *A Laser Printer* gives business quality print-outs.
- *An Ink-Jet Printer* costs much less than a laser printer and it is adequate for most printing jobs, but the ink cartridges run out quite quickly and are expensive to replace. So unless the Telecentre is not planning to provide professional printing services, in the long-run it is cheaper to buy a laser printer.

- *A Colour-Laser Printer* is very expensive. The Telecentre will only need it for high volumes of professional work.
- *A Colour Ink-Jet Printer* is fairly cheap to buy, but is expensive to operate because of the high cost of its colour ink cartridges.

Modems

A modem is essential for Internet/data communications. It is the piece of equipment that enables the computer to send and receive data over telephone lines, and to communicate with Internet Service Providers to give you access to the Internet. Modem speed is measured in bits per second (bps) or kilobits per second (Kbps). The higher the rate, the quicker transmission. To receive graphics images such as photographs, a rate of 14.4 Kbps or higher is essential, but text can be received at 2 400 bps through HF or LEO satellite links, ideally in compressed format, which results in an effective throughput of about 7.2 Kbps.

Most recent model modems should be able to operate at 33.3 Kbps and sometimes at 56.6 Kps, depending on the quality of the local telephone network. In some areas where there is a lot of interference on the telephone lines, or where a DECT Wireless Local Loop system has been installed by the Telecom Operator, it may not be possible to operate at speeds greater than 7.2Kbps.

Although many computers today have internal modems, it is better to buy external modems because of the rapid changes in modem technology. Internal modems also have to operate at higher temperatures and can suffer more damage from lightning and power surges. Because the telephone line is plugged into a PC with an internal modem, a lightning strike can easily damage your computer.

Photocopier

A photocopier is also essential for the daily running of many Telecentres as photocopying facilities are generally in demand. It might be possible to share a photocopier with other organisations or small businesses in the same building. If you buy a second-hand photocopier or one is donated, make sure that the quality of copies is good enough for your customers and that you can have it serviced and maintained. Once again, it is not a good idea to buy a very expensive photocopier to begin with. A photocopier that collates, staples and produces double-sided copies is a wonderful to have, but it is not essential.

An integrated 4-in-1 fax/photocopier/printer/scanners can be used for low-volume copying (1-10 copies) and a separate high-volume photocopier can be used for larger runs.

For large volumes, an increasing number of organisations are using an alternative to the standard photocopier – the RISO range of ‘digital printers’. These are essentially up-dated roneo machines, which are able to handle very high volumes, make copies cheaper than standard photocopiers, and require less maintenance. Many of these machines are being operated in very hot or dusty conditions, and don’t break down as often as standard photocopiers. RISOs cost the same as a photocopier but are not cost effective for single copies, so this is why we suggest the separate low-volume 4-in-1 fax/scanner/printer/copier for this purpose.

It is important to decide whether the Telecentre should lease/rent or buy the photocopy equipment. Because of the high maintenance costs, renting or leasing may be the best option. A medium-volume photocopier such as the Toshiba costs about US\$250 a month to rent, including the toner it uses.

Binding Machine

If there is a demand for large quantities of copying and print production work, a binding machine will be useful and can generate additional income. There are different types of binding machines to choose from, depending on the size of documents to be bound and the kind of binding used.

CD-Writer

With this equipment, which costs only US\$200, a Telecentre can distribute photo-albums, videos and music on CD-ROM, make back-ups, distribute web sites, save other databases and make copies of CD-ROMs. Cultural records of the community and newsworthy events can be recorded and stored in this way for future use.

Scanner

Flatbed scanners are the most popular. As with photocopiers, the material you want to scan is placed flat on a glass plate. Hand-held scanners cannot be used effectively for books or publications. The software for manipulating and editing scanned images is usually provided with the scanner.

Paper Shredder

A shredder will let you destroy confidential documents and client information. Telecentre staff have an obligation to respect a client's needs for confidentiality.

Digital Camera

A digital camera has become a popular item at Telecentres as pictures can be transferred into documents or e-mail messages at no cost – the pictures are simply copied from the camera to the PC. A digital camera is particularly useful for a Telecentre wishing to operate as an e-mail post office. A Telecentre servicing the needs of international travellers or visitors can easily generate additional income with a digital camera.

Laminator

Laminators allow print-outs to be preserved by covering them with a thin film of transparent plastic. There is a wide variety of sizes, shapes and prices. Where the community has indicated a demand for laminating services, it is important to be clear about the kinds of documents the Telecentre will be asked to laminate. For example, will documents primarily be A4 certificates or A5 posters?

Television

A small-screen TV set is sufficient for most Telecentres since most tele-learning classes are fairly small. If you buy the same make of TV and video player, you may be able to negotiate a discount with the supplier. A remote control is an important addition.

VCR (video recorders)

Telecentres offering dubbing services (copying videotapes) of Tele-lessons for students will require two VCRs. If you offer this service, it is best to have two machines of the same make for compatibility. A long-play function is desirable, and more heads give better picture quality.

Video conferencing

Video conferencing is an excellent way of facilitating meetings between people at a distance. But as has already been mentioned above, this equipment is expensive and it is therefore not likely to be a viable investment for a new Telecentre.

Zip drive

A zip drive is an external storage and back-up system for files stored on a computer and can be used as an alternative to a CD writer. The advantage of a zip drive, like the CD writer, is that it will hold much more information than a floppy disk. It is very useful for storing the confidential work of Telecentre users.

Supplies

The following supplies are essential for most Telecentres:

- Diskettes. A Telecentre should be careful when allowing customers to use their own disks or software because they may be contaminated with viruses.
- Extra ink and/or toner cartridges for all printers, copiers, and fax machines.
- A supply of photocopy/printer paper.
- Replacement cables.
- Replacement keyboards and monitors where possible.

3.3.4.3 EQUIPMENT AND SERVICE PROCUREMENT STRATEGY

Standard retail prices for equipment can be reduced in two ways:

- If groups of Telecentres are being started through a national programme, or through independent associations, then they can benefit by buying standard equipment in bulk at wholesale prices OR through a tender.
- The Telecentre can negotiate with the manufacturers for free or at-cost demonstration equipment for testing different options. You will have to negotiate terms with each supplier

Maintenance of the computer equipment should be carried out by a nearby computer dealer if available as this will: a) minimise the costs of support, b) build local capacity and c) decrease the downtime because the source of support will be closer.

Although it is probably cheaper to buy the equipment in bulk centrally for groups of Telecentres, in general central maintenance and support agreements are too costly and local agreements should rather be made. Nevertheless, equipment that fails during the guarantee period will have to be returned to the original supplier, but perhaps mediated by the local support service where available.

3.3.5 FINDING THE BEST LOCATION FOR A TELECENTRE

3.3.5.1 PREMISES

Ideally the community should provide a Telecentre's premises rent-free and maintenance-free. If this is not possible, an organisation might be able to provide the space or pay the rent as part of their contribution to the Telecentre, at least until it becomes viable. A ready-made market is the most obvious advantage of sharing space or jointly establishing a Telecentre with an existing organisation such as a library, a business enterprise, or a community advice centre. There are many examples already showing that placing a Telecentre inside or close to an existing business or service, such as a post office, results in increased traffic for both operations.

It is expensive to design and build Telecentre premises from scratch and not many Telecentres in Africa can afford these costs. If it is possible to renovate a recycled shipping container, this can serve as adequate premises. Alternatively, an existing building can be transformed into a Telecentre. The costs of upgrading premises will vary from site to site. In some cases only the addition of a security system and paint will be required. The installation of an electricity supply and a telecommunications link will of course also be needed.

In some buildings the roof will need to be fixed and an insulated ceiling installed. Insulated ceilings and/or air-conditioning are recommended to reduce the heating/cooling power consumption and to reduce the amount of dust.

Air conditioning may be necessary:

- To minimise the need to open the windows which lets in dust which is harmful to the equipment.
- To reduce the operating temperatures of the equipment, which significantly decreases failure rate.
- To increase the comfort levels of the staff and customers. In particular, a cool Telecentre during the height of the summer may prove an attractive feature, encouraging users to visit it and spend more time using the facilities.

At a minimum, window blinds are necessary for meetings, classes and training centres that use an overhead projector.

As with all services aimed at the public, experience has shown that the right location is at the top of the list of key ingredients for the success of a Telecentre. A Telecentre that is far away in a side street will have to work very hard to make itself known to the community and is unlikely to attract any passing traffic. Sustainability hinges on a Telecentre's visibility and accessibility to as many users as possible.

It may not always be possible to have a main street location. The availability of electricity and/or phone lines can be a more important determining factor, or often the location of the sponsoring organisation will decide where the Telecentre is placed. Where a Telecentre is not able to secure highly visible premises, marketing plans should take this into account, and relationships with other organisations in the community will be especially important.

Buildings that can be used for Telecentres include:

- Post office
- Disused school building
- Community hall
- Community radio station
- Vacant shop premises
- Library
- Museum
- Shop fronts
- Vacant house or flat
- Religious or educational organisation
- Rooms in a trade union's or a local NGO's offices
- Trailer or converted container
- Policeman's house or perhaps even a police station.

The ideal space

As you can see from the list above, a Telecentre can operate in almost any space that is available and affordable for a community, provided it has electricity, a telephone connection and is reasonably secure.

In this section we will look at the kind of space that would be ideal for a Multi-purpose Community Telecentre. Remember the general principle that Telecentres can start small and grow and expand. A Telecentre might be given a small amount of space initially and later on, as the Telecentre's reputation and its importance to a community is established, it may either be invited to occupy larger premises by a local organisation, or bring in sufficient revenue to rent, buy, or raise funds for larger premises.

Research shows that Telecentres take an average of two years before they can expect to be self-sustaining. It takes time for a community to get used to new technology and to accept a Telecentre as part of the community infrastructure. At the end of two years, a successful Telecentre will have increased its number of members or users substantially.

Separate rooms rather than one large room is preferable. A Telecentre user working on a computer may find it difficult to work in the same room as a group watching an instructional programme on television. It is also very difficult for a Telecentre Co-ordinator to conduct meetings and consultations without some degree of privacy, so if at all possible; a separate office should be available for the Telecentre Co-ordinator.

Ideally there should be enough room for telephone booths (about 1 m x 1 m each) computer stations (at least 1.5 m x 1 m each), a reception area, an office, work and rest areas and a general traffic area. If a kitchenette and toilets are not included in the space, they should at least be fairly nearby.

It doesn't matter how small a Telecentre is when it first opens its doors to the public, because it can always expand in the future. If you have a choice of premises, look for space that is large enough to accommodate additional computer stations and additional staff later on.

To get a rough idea of how many telephones or computer stations you will need to serve the users of a Multi-purpose Telecentre in your community, divide the anticipated number

of users by the anticipated number of hours that the Telecentre will be open to the public. For example, if your Telecentre hopes to attract 200 computer users each week, and your doors will be open for business 40 hours each week, five computers will allow 200 users about one hour per week each. However, if the same number of people is expected to come for one hour every day, you will need 25 computer stations. When you work out how many staff members you will need, remember that one supervisor can normally cope with about ten computer workstations.

If a Telecentre wants to reach the largest possible number of people in the community, it needs to be open for as long as possible. Opening hours from 7am to 10pm is not uncommon. Some Telecentres allow users entry at any time of day or night by giving them a key and or using an electronic Personal Identification Number (PIN) system. Obviously security is a key issue here.

Creating the right atmosphere

Telecentres need to be safe, cool, secure, and comfortable. A customer-friendly, comfortable Telecentre with good security and well cared for equipment will attract users and ensure a Telecentre's survival. Telecentre staff needs to cultivate a 'culture of service', rather like a five-star hotel where the staff are trained to ensure that guests have a comfortable and enjoyable stay so that they will keep on returning to the same hotel! (You will find more about this under *Making Rules* and *Training of Managers*). You must also protect equipment from theft and damage caused by heat and dust. (You will find more about this under *Securing the Telecentre*).

3.3.5.2 ELECTRICITY AND TELEPHONE CONNECTIONS

Electricity

Although it is possible to run a Telecentre on solar power, this will push up the start-up costs substantially, so it is better to be connected to the national power grid. Even then, back-up facilities such as a generator or batteries and an inverter are needed in areas where the power supply is intermittent.

For electrical wiring, the minimum requirements are:

- Neon overhead lighting.
- Power sockets (one for each piece of equipment) on a ring around the room.
- A standard electrical wiring junction box with separate isolators/fuses for the PCs, the air conditioner and the telephone system, as well as a socket for additional equipment such as a kettle or urn.

The electrical wiring **MUST** be earthed, even during the dry season when the water table is often lower. This will minimise the impact of lightning on equipment, but special lightning arrestors also need to be placed on the PCs and telephone equipment in areas that experience electrical storms. Electrical wiring should be tested to ensure that it is earthed **before** equipment is installed.

Telephone connections

If a Telecentre does not have some form of telephone link, it will only be able to offer a few computer-based business services and perhaps some downloads of news, weather and market prices via a satellite broadcast link using DSTV or WorldSpace. Where telecommunication services do not exist but there is a definite possibility that they will be installed in the near future, the provision of computer-based services can be the first step in the life of a Telecentre. However, in general a Telecentre without a telephone link is unlikely to be sustainable in the long-term.

In locations where it is not possible to obtain Internet access with a local phone call, but only by a long-distance call, Internet usage will be relative expensive and there is likely to be more focus on e-mail services than World Wide Web.

It will often be cheaper to install a permanent Internet link via wireless or a leased line where there is a large enough number of users of Internet services.

In very remote areas where there is no prospect of normal telecommunication lines becoming available, cell phones or a VHF/HF radio or LEO satellite-based e-mail link to a hub can provide sufficient connectivity for setting up a Telecentre. However the initial costs are higher.

Some countries may not allow private entities to sell access to telephone or Internet services to third parties, but most African countries do not place restrictions on the private re-sale of telecommunications and related services. Nevertheless, most telecom operators in Africa have not developed a tariff policy that specifically encourages the development of privately run public access services. Often the operators of Telecentres are required to pay standard residential tariffs for the calls made, and this leaves little room for mark-up and profit margins. On the other hand, some countries in Africa have very progressive policies, such as Senegal, where private Telecentres receive a 40% discount on call tariffs.

Technical expertise

To hire a technical expert is costly. However, it is most likely that the skills of a technician will be required to plan the exact wiring and configuration required for the Telecentre. Because of the costs involved, it is ideal to have a technical expert as a member of the Telecentre's Steering Committee and to draw on local entrepreneurs, rather than commercial suppliers, for electrical wiring. (Refer to section 3.1 above on **Setting up the Group Responsible for the Telecentre**)

The electrical/telecommunications plan

If new premises are being built for a Telecentre, or a container is being equipped for use as a Telecentre, it is important to plan the wiring for electricity, telephone and data at the same time. The new integrated cabling which allows a telephone or LAN port to use the same socket is ideal, but specialised skills will be required to install it and once again, this may be costly.

For many Telecentres, an existing building will be used and it will be far cheaper to simply extend the required cabling from the existing power and telephone sockets using extension cords. To link the PCs into a Local Area Network (LAN), CAT-5 cable is the standard, and ideally it should be placed in ducting, but for small networks of three or four PCs, it can simply be laid around the periphery of the room. The cabling can be restructured as the Telecentre expands and more funds become available. Alternatively a

wireless LAN system can be used which does not require any cabling. Although wireless LAN cards are more expensive than standard cable-based cards, this solution is a good alternative to getting a specialist company in to do the cable laying for a large Telecentre as the wireless system can be installed by the PC technician.

A plan for a good-sized Multi-purpose Telecentre will need to include the following:

- Floor and wall electrical outlets for printers and computers (maximum six systems per outlet).
- Telephone connections for telecommunications, as well as for the reception area, office telephones and fax machines.
- Wiring for Local Area Networks (LANs).

3.3.5.3 FURNITURE

Fixtures and furnishings can be ordered from local carpenters at a much lower cost than if you purchase them from a commercial supplier. For a large Multi-purpose Telecentre with the *ideal space* mentioned above, here is a list of useful furniture:

For the Reception Area

- A sign on the door to the Telecentre giving the name of the Telecentre and the opening hours.
- A desk and chair for the reception staff.
- Chairs or benches for people who are waiting to be assisted.
- Files for details about users or members.
- A sign-in book (or computerised system) to keep track of user patterns.
- A large wall clock.
- A bulletin board for notices of interest to users. Another bulletin board might be put up on a sheltered wall on the outside of the Telecentre.

A useful tip!

Consider placing a large map of the area on the reception wall. This should be mounted on board to prevent damage. One Multi-purpose Telecentre used a map to keep track of where users/members came from. Users were encouraged to place a coloured pin on the map to show where their home was located. The map made users feel at home in the Telecentre.

For the Computer Area

- Tables for the computers and other equipment. Specially designed computers stands often have sliding shelves with the shelf for the keyboard designed to ensure that it is kept at the proper height for easy use. Some computer stands have compartments to contain the various cables. Built-in counters for equipment are more expensive and they don't allow enough flexibility since they cannot be moved around to accommodate new developments in a Telecentre.
- One or two computer stands on wheels can be very useful. They allow privacy if people need it. They can also be wheeled into conference rooms or other rooms in a building for presentations or demonstrations.
- Chairs for users (two per computer). The chairs should be comfortable and suitable for children and adults.
- Filing cabinets and cupboards or shelves for software, supplies, records of users and daily, weekly and monthly logs.
- Neon lighting.

- Bulletin board space for projects, presentations and displays.

For the office

Desks, chairs, files, cabinets and shelving for supplies, stationery, and reference materials. Computers with telecommunications capability. Telephone(s), fax, photocopier.

The floor plan

Once the premises for the Telecentre have been secured and plans are being made for the installation of electrical wiring and telephone lines, the fixtures and surfaces, a floor plan becomes essential. This plan should also indicate where hardware and equipment will be placed.

3.3.6 MARKETING THE TELECENTRE

Every Telecentre will need to think of ways to generate public interest in its activities and achievements. Marketing is critically important to develop support for the Telecentre, including on-going financial support. The details of the marketing plan will need to be included in the Business Plan.

There are four stages in a marketing process:

- Stage 1: selling the idea
- Stage 2: marketing analysis
- Stage 3: establishing the Telecentre
- Stage 4: maintaining growth.

Marketing of the Telecentre begins before the first public meeting to discuss whether or not a Telecentre is viable in a particular community. This public meeting is the Telecentre's first public relations activity.

Once the decision has been made to establish a Telecentre, the Telecentre should try to publicise every activity and accomplishment as widely as possible. This is when the second stage of marketing begins. The goals of a new Telecentre's marketing strategy should be to:

- Introduce itself to the community
- Become a familiar organisation in the community
- Broaden its participant base
- Generate interest in its activities.

A Marketing Plan can be very limited if it is left up to one person, and so it is important that all Steering Committee members contribute their ideas. A brainstorming session in which ideas are written down on a large piece of paper is the best way to begin to develop a Marketing Plan.

The first project should be a marketing programme leading up to the day when the Telecentre opens. One way to develop this plan is to draw up four columns on a piece of paper like this:

WHAT	HOW	WHERE	ACTION

In the first column, the **WHAT** column, you will list everything that will help to market the establishment of the Telecentre. Any newsworthy items should go in this column. For example:

- The list of services the Telecentre will be offering.
- The Telecentre premises.
- The members of the Steering Committee.
- The appointment of the Management Committee.
- The appointment of the Co-ordinator.
- Grants received.
- In-kind contributions from community members.
- The opening event.

All of these events could be turned into news items for a local newspaper, newsletters of local organisations, or a programme on a community radio station. Make sure that lots of photographs are taken and concentrate on the ‘people’ side of the story, especially in the case of the Telecentre Co-ordinator or members of the Management Committee.

In the **HOW** column, list the best ways to market each of the items listed. For example:

- Radio.
- Newspaper articles.
- Billboards at the police station, the local shopping centre, and the community centre.
- Speak to community groups.
- Distribute a one-page promotional letter from the Steering Committee.
- Advertise on the Internet.

In the **WHERE** column you can give more detail. For example, **which** radio programme should be targeted.

Finally, in the **ACTION** column, you will list the name of the Steering Committee or Management Committee representative who will take responsibility for following up this particular course of action.

Note: Before the Telecentre premises are renovated or occupied, take a photograph. Take another photograph after renovations. Your photos can be used for an article in the local newspaper or as part of a display.

The opening event

If the Telecentre is planning an opening event:

- Invite a high-profile person from the community to open the Telecentre such as the President or the Deputy President, a local MP, or the director of a funding agency.
- Send invitations to every community organisation you can think of, as well as to local government representatives and representatives of the business sector. These invitations should be sent out in good time so that people have at least three weeks to respond.
- Make sure that all local media are invited to the opening day.
- Arrange a programme for part of the day. This might include an opening speech, a demonstration, refreshments, etc.
- Make sure that plenty of photographs are taken.
- Make sure that a member of the Steering Committee or the Management Committee is available to welcome guests.
- Ensure that all the people who attend the event register as they arrive, so that their names, addresses and contact details are recorded. Specific forms can be drawn up, which will include space for visitors to note which Telecentre service they are most interested in, and any other comments they might have about the opening of the Telecentre. These comments can be included in articles and in displays of the opening event.
- After the opening of the Telecentre, it might be a good idea to mount a display, including photographs, in the local library, shopping centre or community centre.

3.3.7 INSURING THE TELECENTRE

It is advisable for a Telecentre's Steering Committee to familiarise itself with local health and fire regulations before taking out insurance for the Telecentre. A Telecentre can insure its staff, users and property by buying an insurance policy or by self-insurance. For self-insurance, a Telecentre will need to set aside a certain amount of money to cover any claims against itself and to insure staff, users and property against damage or injury.

When a Telecentre leases premises, or uses premises belonging to an existing organisation, the owner may already have property insurance. Usually this insurance will have to be supplemented by the Telecentre to cover its staff and its property.

There are three types of insurance that apply to a Telecentre:

- Liability Insurance
- Property Insurance
- Workmen's Compensation Insurance.

Liability Insurance

Liability insurance protects a business against lawsuits and other claims arising from harm to persons on the business property. With liability insurance there is usually a maximum coverage each year. This means that the insurance company will not pay any claims that exceed a certain amount within a year.

A commercial general liability policy includes personal injury claims (such as falls), fire damage, and medical payments. Liability insurance would also protect a business against claims arising out of contracts it enters into with others, such as the lease of the property. A Telecentre may choose to cover staff under the liability insurance. This would give staff

and volunteers coverage for any bodily injury or damage caused to the property during the time when staff members or volunteers are working in the Telecentre.

Property Insurance

In many parts of Africa, heat and dust can cause considerable damage to equipment. Property insurance protects a business against damage to the building, furniture, and equipment. Most property insurance uses a deductible system which requires that the insured company, in this case the Telecentre, pays a portion of the loss. The insurance company pays for the rest of the loss.

There are four types of **property insurance** coverage:

- Basic coverage, which includes losses caused by events such as fire, lightning, explosions, smoke, vandalism and mischief, and sinkhole collapses.
- Broad coverage, which includes losses covered in the basic coverage as well losses caused by water damage, glass breakage, and damage caused by freezing and falling objects.
- Special coverage. This is the most comprehensive coverage because in the event of loss, the insurance company must find an exclusion in the policy to deny the claim rather than the insured having to find a coverage in the policy which is relevant to the damage caused.
- Difference in Condition coverage, which usually includes coverage for unusual events, which are not covered by the other types of coverage. These events may include earthquakes, tidal waves and floods.

Workmen's Compensation Insurance

Workmen's Compensation Insurance covers a business against injuries to staff, which happen while they are at work, or when staff becomes ill. The Telecentre's Steering Committee will need to find out what the Telecentre's obligations are with regard to this kind of insurance.

3.3.8 BUDGETING

If you work through the above sections you should be able to make up a list of all the costs and income sources so that a budget can be developed. There are two parts to the budget:

- **A start-up budget** gives details of the one-time costs of setting up a Multi-purpose Telecentre.
- **An operating budget** gives details of the on-going costs of running the Telecentre.

Start-up Expenses include the cost of getting everything ready before you actually open the Telecentre. There are two kinds of start-up expenses:

- Capital expenses and one-time expenses such as renovations to the premises, purchase of equipment, furniture and furnishings and deposits to suppliers of electricity, telephone connections, etc.
- Expenses that will continue once the Telecentre is operational such as salaries, rental, equipment maintenance and replacement, insurance, software and computer supplies, marketing costs, telecommunications costs, educational materials, stationery and cleaning materials, etc.

The best way to approach a budget is to set up a spreadsheet or a page with columns drawn on it, and methodically work through each category of expenditure. For each category there should be one column for start-up costs and another column for on-going monthly costs over a period of one year. The totals can be added up when you have completed your list. Here is a list of costs you will need to consider:

Staff

There will be various sub-categories under this section since you will need to calculate the Co-ordinator's monthly salary, the receptionist's monthly salary, etc., as well as an hourly or daily fee paid to casual assistants.

Staff benefits

This will include the cost of medical aid and provident schemes, training courses, etc.

Professional fees

These costs include charges for lawyers, accountants, technicians, etc. It is likely that legal costs will be higher during the start-up phase. An accountant's fees, however, will probably be on going.

Site costs

These include costs of:

- Renovations (which will be listed as start-up costs).
- Utilities (i.e. water and electricity, rates, garbage collection, etc.). If you are unsure about these costs, you can find out what another business or organisation of a similar size pays and then you can work out the costs. If you are unsure, it is best to over-estimate these costs at first.
- Maintenance. This will include cleaning materials and cleaning equipment such as a broom, a mop, a bucket; toilet paper and soap, etc. Once again, if you are unsure, ask another organisation in similar-sized premises how much they pay.

Security and insurance

If the Telecentre premises are being used before it opens to the public, these costs must be included as start-up costs.

Hardware and software

Here you should include the cost of maintaining and replacing hardware as well as the cost of building on existing hardware and purchasing new equipment. Maintenance costs should include the cost of any maintenance contracts on computers, printers, or other peripheral equipment and an estimate of what repairs will cost. This estimate should increase as the hardware gets older.

Start-up costs of software will probably be higher than the on-going monthly amounts. For example, a Telecentre might plan to purchase 80 software packages by the end of the first year, but it will start out with 40.

Office expenses

The costs here will include stationery, envelopes, labels, fax paper rolls and other stationery, as well as items such as sign writing for the door of the Telecentre. It is important to allow some costs for miscellaneous supplies because it is always difficult to accurately predict all the hidden costs in this category.

Communications

This should include monthly on-line service charges for the Internet as well as the telephone bill (which includes fax charges). If a pay-phone is installed in the Telecentre, you will need to include the monthly charge for the pay phone in this section of the budget.

Marketing and public relations

For this section of the budget you will need to assess the costs of placing advertisements in local newspapers or on radio and television, posters, pamphlets, brochures, etc. In the section 3.3.6 on **Marketing the Telecentre**, page 53, you will get more of an idea of the kinds of costs involved in marketing. Since the most intensive marketing will happen before the Telecentre opens, a large percentage of these costs will be listed under start-up costs.

Meetings and entertainment costs

Here you may include the costs of providing refreshments for Steering Committee meetings and other meetings. Events such as Telecentre open days will also be costed here.

Educational materials

Here you will include reference books, magazines, newspapers and technology journals, etc.

Miscellaneous costs

Under this section of the budget you will need to consider costs such as banking fees, licensing fees, etc.

Income projection

On a separate sheet, you will need to list all the income you expect to earn for the Telecentre. Here you may consider the income the Telecentre will receive from:

- Telecentre users
- The business community
- Government subsidies
- Grants from local organisations or funding agencies
- Special fundraising events
- Others.

3.3.9 FINALISING THE BUSINESS PLAN

This section will assist you to put together all the information gathered in the previous 8 sections in order to come up with the final business plan.

You should now be able to answer the following questions:
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- | |
|--|
| <ul style="list-style-type: none">• What voluntary and paid staff do you intend to employ and under what conditions?• What hours of business do you envisage?• What skills training courses will be offered?• What provisions will you make for repairs and servicing?• What relationships do you have with other structures or organisations in the community?• Are you aware of the legal requirements for setting up a Telecentre?• How do you intend to acquire capital items needed for the Telecentre? |
|--|

- How do you propose to manage the finances of the Telecentre?
- What promotional and marketing plans do you have for the Telecentre?
- How and when will you review the effectiveness of the Telecentre according to the proposed objectives?

Schedule a series of meetings with your Steering Committee. After each meeting (which should last for a whole morning or a whole afternoon), each Steering Committee member can take responsibility for working on a certain section of the Business Plan based on the discussions in the meeting. This work can be discussed again in the next meeting until everybody is happy with the contents. All this information can then be integrated into a structured document, which will become your final version of the Business Plan.

Use lots of paper. Make lots of notes. When your Steering Committee meets to discuss the Telecentre's Business Plan, make sure you have lots of newsprint available, and different coloured pens, so that every idea can be jotted down, even if it is not used in the final plan.

3.3.9.1 HOW TO STRUCTURE A BUSINESS PLAN

It is best to have a very clear, logical framework for a Business Plan. Not all Business Plans follow the same outline, but they all contain certain elements. Here are the key elements of a good business plan:

Programme focus of the Telecentre

How was this programme focus arrived at? Here you will need to explain how you assessed the needs of the community. You will need to ensure the reader of your Business Plan that a thorough audit of the community was conducted. You will need to provide reliable information, including statistics about the community.

This section should:

- Define the community to be served (for example: general members of the community; students; small business people, etc.)
- Describe the steps the Steering Committee has taken to find out what the community needs are (obtaining demographic information; focus groups; interviews with members of the community; developing partnerships with other organisations in the community, etc.).
- Give a clear summary of the findings of the research.

3.3.9.1.1 Description of the Telecentre's services and programmes

This section will answer the question: *How will the Telecentre's services meet community needs?*

If this question is answered well, it will give an idea of:

- The different alternatives that the Telecentre has considered.
- How other community resources have been taken into consideration.
- Why the chosen services meet the needs of the community (Note: If the Telecentre's Steering Committee has developed a mission statement for the Telecentre, it should fit in well here).

For special programmes, this section of the plan should also give the following details:

The name of the programme. (For example, *Job Preparation Programme; Teachers' Programme*, etc.)

A detailed description of the programme. (What it will involve; What the participants will do; What the programme will achieve).

The hours when the programme will be offered. (For example, the *Teachers' Programme* might be an afternoon or an evening programme).

The paid and volunteer staff who will supervise the programme. (For example, the *Job Preparation Programme* might be offered by a retired volunteer human resources manager from the community).

The anticipated outcomes of the programme. (For example, the *Job Preparation Programme* will aim to equip unemployed members of the community to find jobs).

3.3.9.1.2 Community partners

This section will give information about what the Steering Committee has done to develop partnerships with other organisations and groupings in the community. The following questions should be answered:

- How were community partners identified?
- What partnerships have been developed?
- How will the partner benefit from the Telecentre?
- How will the Telecentre benefit from the partner?
- How will the partnership be sustained?

Note: Remember that there are many different kinds of partnerships and many different kinds of benefits. Never underestimate the value of *in-kind* contributions. All partnerships should be described in this section of your Business Plan.

There are partnerships with organisations. For example, the Telecentre might have a partnership with the local housing forum or the Adult Basic Education programme or with the government's Department of Education.

Here are some examples of other partnerships that are essential for a Telecentre's ability to become self-sustainable:

- A partner may offer free premises to the Telecentre, or premises at very low rent.
- A partner may offer old PCs to the Telecentre, or second-hand hardware at low cost.
- A partner may offer software, furniture or renovations and low cost or no cost.
- Partners are the skilled people on the Steering Committee who contribute their expertise to the Telecentre at no charge because of their commitment.
- A partner may be a community library that offers a special exchange arrangement. For example, the Telecentre can use the resources of the community library at no cost in exchange for computer usage for two staff members for a certain number of hours per week.

There are many other examples of partnerships.

Your description of these partnerships should be very clear and concise and give exact details of the exchange. Remember, other organisations have to pay for some of the services that a Telecentre will receive free of charge from partners. These services have a

material value, and this must be taken into account when you draw up your budget. The free services you receive from community partners constitute money you have already raised for the Telecentre. A funder will be very interested in this information.

3.3.9.1.3 User projections

In this section of the Plan you will need to consider the following questions:

- How many people will use each of the Telecentre's different services and programmes?
- How will this increase as the Telecentre becomes better known?
- What will a weekly or monthly schedule for the Telecentre look like?
- How will the schedule change at different times of the year? For example, during school holidays there will be more school students attending programmes during the day. In holiday seasons or over Christmas, there might be more tourists visiting the area, etc.

This section will require quite a bit of guess work. When a Telecentre starts out, it is difficult to work out how the number of users will increase precisely. After a Telecentre has been operating for a while, there will be a much clearer picture of user patterns and user numbers. At the beginning, you will need to rely on the results of the pilot programme, if there has been one, predictions from other community organisations that have been consulted and the impressions of Steering Committee members who are involved with different sectors in the community.

It is worth describing, where possible, how you came up with your projections. For example, you might say something like this:

A meeting was held with the Women's Group, which meets at the local community centre. Ten women attended the meeting. All of these women expressed an interest in attending a computer literacy programme. These ten women are connected to a number of other organisations in the community ranging from the local funeral society, a sewing group, a women's co-operative, the mothers' union and an adult literacy class. There are approximately three hundred other women who will hear about the Telecentre from the ten women in this group. If one third of those women decide to visit the Telecentre, this represents another one hundred users. We predict that of these one hundred, at least 30 will register for classes in computer literacy in the first month.

In this section you should include an example of the Telecentre's proposed schedule for use of rooms and PCs. It is best to keep a consistent schedule from day to day for special programmes so that the public can more easily remember when these programmes are held.

The schedule may look like this:

Monday

9:00: Elderly

9:30: Job Preparation

10:00 – 12:00: Open Time

12:00 – 16:00: Recreation/Unemployed

16:00 – 18:00: Open Time

18:00 – 20:00: School Leavers

Tuesday

And so on...

3.3.9.1.4 User fees

In this section you will give an idea of the money that will be charged for different services. Apart from the fees for fax and telephone, Internet access (for example per half-hour), photocopying, binding, laminating, etc., you will have different costs for different user groups. These costs will also be influenced by existing partnerships. For example, if an educational NGO has provided premises free of charge, you may not charge a some of the staff members from that NGO for usage, provided that they use the Telecentre at agreed upon times.

You might have separate membership fees for students and adults, or for women's groups, health care workers and business people. In each case, these costs need to be carefully worked out. The Telecentre needs to generate income but it must not be out of reach of the people in the community. Its future depends on being accessible to the whole community.

3.3.9.1.5 Operations

This section outlines the details of the Telecentre's plan for getting going and maintaining itself. The following questions should be considered:

- Who will govern the Telecentre? Who are the members? What are the major responsibilities of this structure?
- Who will be in charge of the day-to-day operations of the Telecentre? Who will this person be accountable to?
- What other staff members will be needed? What will they do? Who will they be accountable to?
- How will the Telecentre's performance be reviewed? How will volunteers and staff be rewarded for their commitment and hard work?

3.3.9.1.6 Timeline

This section looks at the different steps in the process of setting up the Telecentre and who is responsible for ensuring that these steps take place. It takes time to set up a Multi-purpose Telecentre because there are so many factors involved, such as staff, computers, participants, space, available funds. Most Steering Committee members will have full-time jobs and the voluntary time they can give to setting up the Telecentre will be limited. In general it will take at least one year to establish a Multi-purpose Telecentre.

Note: Although there are certain essential steps for establishing a Multi-purpose Telecentre, each Telecentre is unique and not all Telecentres will follow exactly the same process.

Possible timeline

Months 1 - 4

Form a Steering Committee

Conduct the first meeting of the Steering Committee

Conduct a community audit

Hold a community meeting

Conduct the second meeting of the

	<p>Steering Committee (with new community representatives)</p> <p>Gather in-depth information about the target group's needs and assets</p> <p>Hold the third meeting of the Steering Committee to discuss the information collected</p> <p>Decide on the governance structure for the Telecentre and institute the legal arrangements</p> <p>Design a fund-raising plan</p>
Months 5-8	<p>Hold Steering Committee meetings once a month</p> <p>Determine the programme focus of the Telecentre (to reflect the needs and interests of the community)</p> <p>Identify equipment needs</p> <p>Build partnerships with local institutions/organisations</p> <p>Develop a business plan</p> <p>Begin with fundraising</p> <p>Develop a strategy for on-going operations and begin a pilot programme</p> <p>Find a location for the Telecentre</p>
Months 9-12	<p>Advertise and market the Telecentre</p> <p>Hire a co-ordinator for the Telecentre</p> <p>Identify software programs to meet the programme needs of the community</p> <p>Acquire computers and software</p> <p>Renovate the premises and begin to set up the Telecentre</p> <p>Recruit volunteers to assist with staffing the Telecentre</p> <p>Launch the Telecentre</p>

In each case, the step to be taken should be described in more detail than is given in the sample timeline. It should describe the task in more detail; give the deadline for the task; and give details of which staff members or Steering Committee members will be responsible for ensuring that the task is completed in time.

3.3.9.1.7 Start-up needs

Here you will need to convince whoever reads the Business Plan that you have thought about absolutely everything that the Telecentre needs before it can begin to operate. This includes all items, services and expenses that need to be acquired and paid for before the Telecentre opens its doors, including costs relating to the Telecentre premises, staff, equipment, supplies, salaries, software, hardware, cleaning materials, stationery, etc.

3.3.9.1.8 On-going needs

Again, this list must be very comprehensive. Here is a summary of what you need, but you will have to give details for each section:

- Premises (rent, utilities, security, insurance, maintenance, rubbish removal, etc.).
- Staff (including salaries, benefits and perks for volunteers).
- Marketing and promotion.
- Equipment and furniture (including replacement and repair costs).
- Software (including purchases, upgrading and replacements).
- Computer and office supplies.
- On-line services and Internet accounts.
- Publications and reference materials.
- Budget for special events (such as the launch of the Telecentre or an open day where refreshments are provided, etc.).

3.3.9.1.9 Marketing the Telecentre

How will you inform the community of the services that you offer? The questions to be answered here include:

- What media will be used?
- What promotional materials do you plan to produce?
- What meetings are you planning for special presentations?
- How will community partners assist with promoting the Telecentre?
- How will you market the Telecentre to people who cannot read or write, or to disabled people, etc.?

In this section you should include a description of the process you went through to develop your marketing plan.

Here is an example:

We intend to communicate with local government representatives. We plan to set up personal meetings with all local government ministers. We have already met with the Ministers of Education, Health and Welfare, and Economics. We have received permission to set up a stall at the Inter-Ministerial meeting on HIV/AIDS, which is going to be held on 5 June at the community centre. Here we will distribute pamphlets about the Telecentre services and encourage local government representatives to make use of the Telecentre to distribute important government information. We also plan to have a PC available, so that we can demonstrate the value of setting up a specific web site for different government departments. We will offer to assist government departments with setting up their own personalised web sites.

3.3.9.1.10 Evaluation of Telecentre services

Here you will need to assure readers of the Business Plan that you have made plans to evaluate whether the Telecentre is meeting its objectives.

You will need to describe these evaluation methods in detail, and they could include:

- Signing in/signing out procedures that give a record of who uses the Telecentre and for how long.
- Teacher/instructor logs which include plans for classes as well as follow-up notes.
- Volunteer logs to record tasks undertaken by volunteers, difficulties encountered and suggestions for improvements.
- A comments box for Telecentre users to place their comments, suggestions and criticisms.
- Plans for regular meetings with representatives of key user groups, volunteers and staff in which people can express their needs and their concerns.
- Appointing a representative of a key Telecentre user group to the Steering Committee so that he or she can directly feed back concerns to the highest decision-making structure.

3.3.9.1.11 Possible problems and solutions

You need to be clear about your concerns and reservations. It is always better to be open so that the reader of the Business Plan knows that you have considered that some things could go wrong and that you have prepared contingency plans to deal with potential problems. Here is a list of potential problems:

- Hardware breakdown or malfunction. Unreliable technical assistance.
- Not enough participants/customers, or too many.
- The schedule is not appropriate to meet the needs of key user groups.
- Anticipated funds may be delayed or may not be forthcoming at all.
- Volunteers might be unreliable.
- The Telecentre premises may be too small, too hot or too cold.
- There may not be sufficient staff to sustain all the Telecentre's programmes.
- Telecentre staff may not be skilled in dealing with customers.
- Telecommunications connections are unreliable.
- Students may refuse to obey the rules.

From your list of potential problems, choose two or three to describe in detail. For example:

The problem

There is a 'wild' group of high school students in the community. We are concerned that these students will break the rules by making too much noise and eating and drinking on the Telecentre premises. This will disturb other users and could even damage the Telecentre equipment. We could lose customers if we can't control this group.

Possible solution

The Telecentre Co-ordinator will have to be very firm about enforcing the Telecentre rules. If the behaviour of these students does not improve, it might be necessary to approach the principal of the school and ask for his assistance. If there is still no improvement, this group of students will have to be denied entry to the Telecentre.

3.3.9.1.12 Budget and financial planning

In this section you will have to show that the Telecentre is able to raise sufficient funds to start its operations and to keep running. You will need to present a summary of projected start-up expenses and costs and a cash flow worksheet describing on-going expenses and revenue for the first year of the Telecentre's life. You will require the assistance of an accountant for this section of the Business Plan. Perhaps there is an accountant on your Steering Committee who is prepared to volunteer his or her services? If not, it is best to seek professional help from a reliable accounting firm in the community. The costs of these services will be included in your start-up costs.

The financial breakdown should be accompanied by a written description of the budgeting process. It will also describe any initiatives taken to identify sources of support. If the cash flow statement indicates negative cash flow in some areas, you will need to give concrete suggestions on how you intend to address the problems.

SUSTAINABILITY

The sustainability of the Telecentre will be of concern to funders, Telecentre users and local organisations. It is important to emphasise the Telecentre's potential to be sustainable after the first year of operating in this section of the Business Plan.

3.3.9.2 HOW TO PRESENT A BUSINESS PLAN

A Telecentre's Business Plan is one of the most important documents it will produce. The way in which it is presented will indicate to funders, and other readers of the Plan, the Telecentre's degree of professionalism and commitment. The Plan should include a number of appendices or attachments. These may be:

Supporting documentation

Any documentation to support what has been described in different sections of the Business Plan. Here are some ideas that may or may not be appropriate for your Telecentre:

- A floor plan of the Telecentre.
- Letters of support from partners.
- CVs of Steering Committee members or staff members.
- A mission statement for the Telecentre.
- A map of the area showing the Telecentre's proximity to other organisations or structures.
- Photographs of a women's group or a group of students who have expressed their support for the Telecentre.
- A cash flow statement (*This is essential for any Business Plan).

An Executive Summary

This is the first page that readers will see when they look at the Business Plan. It gives a summary of what they will read in the report. It should not be more than two pages long and should simply highlight key sections of the report.

The executive summary should – **very briefly** – answer the following questions:

- Who are you? (Describe the Committee or the sponsoring organisation)
- What are you planning? (Describe the Telecentre)
- Why are you planning the Telecentre? (Describe the needs of the community)
- How will you do it? (Describe your plan for the Telecentre)

- When will you do it? (Describe your timeline)
- What will happen? (Describe the anticipated outcomes).

Cover Page

There will be very little information on this page. It will include:

- The name of the Telecentre (or the sponsoring organisation).
- The words: **Business Plan**.
- The date of the Business Plan.

Binding and distribution

The Plan should be presented professionally but you should not spend too much money on it. It needs to look neat and professional. It is possible to bind the document but this will depend on the costs involved. Alternatively, very attractive files can be purchased quite cheaply from a local stationery shop.

You will need quite a number of copies of the Business Plan. You have to make a list of how many copies you will need and, if you do not have access to a photocopying machine, get some quotes from the local printer so that you can make presentable copies at the lowest possible prices. Your distribution list may include the following:

- Steering Committee members.
- Volunteers and staff members.
- Key people in the community.
- Community partners.
- Funders.
- Local government officials.
- Others.

Note:

See the Generic Telecentre Business Plan in Appendix 4 of this annual. The document provides an example of a business plan, which can be used as a checklist to refine an actual Telecentre proposal. You will probably find it useful to go through each item and modify, add, and delete sections according to your local conditions. The names used in the document are fictitious.

In the business plan for the following years it is important to include the depreciation of especially the computer equipment. This equipment is often depreciated with 20-30% per year.

3.4 FUNDRAISING

Now that the Business Plan has been developed, funds will have to be raised for the Telecentre, both formally and informally.

Formal fundraising

For formal fundraising, the Telecentre's Business Plan is a critical document. There are several steps to follow for formal fundraising:

3.4.1 DEVELOP A DATABASE OR A LIST OF POTENTIAL FUNDERS

This should be updated when new information becomes available. For each individual or organisation on the list, you should add the following information:

- Name of the organisation.
- Street address.
- Telephone and fax numbers.
- E-mail or web site address.
- Name of the person to be approached.
- Name of the person or organisation that referred this potential funder to you.
- Funding areas of the organisation (for example, one funder might be particularly interested in funding networking activities, another might want to support women's groups specifically, etc.).
- Preferred method of initial approach (for example phone call, meeting, letter, proposal, etc.).
- Deadlines for applications.
- Leave some space to record the approaches you have made to different funders. For example, if you sent a letter to a certain agency on 6 June, 1999, and received a reply on 7 July stating that your application is under review, it is very important to record these dates and details. For one thing, you don't want to make the mistake of approaching the same funder too soon after your first application. Secondly, when you follow up an application, it is important to be able to say that you are making a follow-up on the basis of correspondence that has already been written or received on a certain date.

3.4.2 COLLECT INFORMATION ABOUT POTENTIAL FUNDERS

This will involve speaking to other community organisations, to government departments or agencies, or to influential people in the community. It will probably be useful to gather as much written material about potential funders as you can find. For example, annual reports of large corporations or development agencies, or details about how to apply for funds from a structure such as the Universal Service Agency in South Africa. The Universal Service Agency has assisted some Telecentres in South Africa with start-up funds.

The information you collect can give useful facts about where a particular funder's sympathies lie. For example, if a funder is especially interested in assisting school students and the Telecentre has a strong outreach to school students, it will make sense to emphasise this focus group in an application for funds.

3.4.3 PREPARE AND SEND OFF THE FUNDING APPLICATION

It is a demanding and time-consuming process to write a good fund raising proposal from scratch. For this reason, it is useful to develop a "master copy" which can be adapted for different funding applications. If the Telecentre's Business Plan has been finalised and is

up to date, it will be much easier to write a funding application since the Business Plan will include most of the information required. The key elements of a funding proposal are:

- An Executive Summary.
- A description which includes the following:
 - details about the need for the Telecentre
 - a description of the Telecentre's programmes
 - details about the Telecentre's capacity (equipment, operating schedule, etc.)
 - a staffing plan.
- A budget.
- Supporting documentation. This may include press cuttings, letters of support, pamphlets, a list of Steering Committee members with a brief description of what they do and how they are connected in the community, and a copy of the Business Plan.

Note: A funding proposal is not the same thing as a Business Plan but it has some of the same ingredients.

3.4.4 FOLLOW UP

Arrange a meeting

If your application for funding has been sent to a local agency or organisation, telephone the person responsible for reviewing funding applications approximately ten days after posting the proposal, and request a meeting. Advise all members of the Steering Committee that a funding application has been sent to this particular organisation or agency, and ask them to follow up with any contacts they have who might be able to support the application.

Even though the organisation or agency may take several months to review the application, make sure you keep in touch. You might send press clippings or other information about the Telecentre to the person responsible while you are waiting for a response.

What to do if you hear that your application has been accepted

- Write a letter thanking the funder.
- After the funds have been received, write another letter thanking the funder.
- Six months later, you could contact the same organisation and ask about the procedures for applying for further funding.

What to do if you hear that your application has been rejected

- Phone the relevant representative and try to find out why the application was rejected. Ask how the proposal could be re-written to make it more effective.
- Ask about the deadlines for re-applications for funding.

Informal fundraising

If a member of the Steering Committee has a colleague who is a computer technician and this person offers to repair computer hardware free of charge, this in-kind assistance is made possible through a process of informal fund raising.

Steering Committee members have a responsibility to get the Telecentre running and to play an on-going role in securing funds for the Telecentre. It is a good idea for each Steering Committee member to take responsibility for raising a set amount of funds, whether these are in cash or in in-kind contributions.

How to look for in-kind donations

As with formal fundraising, it is important to develop a database of potential organisations to approach for in-kind donations. It is best to make contact by telephone before sending a proposal. If you are then asked to send a written proposal for a hardware or software donation, the following details should be included:

- Information about how the software or hardware will benefit the Telecentre. For example, it might allow more school students to use the Telecentre, or it might help with Telecentre administration, etc.
- A description of the Telecentre's minimum hardware and software standards for intended use.
- The number of staff able to operate the equipment and the number who still need to be trained.
- Details about the support the Telecentre has for providing staff training, programme development, technical assistance, etc.
- The amount in the Telecentre's budget to support the above activities.

4 MANAGEMENT AND START-UP STRATEGIES

Most of the important management issues for ensuring a viable and vibrant Telecentre are covered in the sections above, and should be further detailed in your Business Plan. This section gives additional information and suggestions for when you take your Telecentre from a project on paper to a fully operational and sustainable entity. The proper management practices must be applied right from start-up of the Telecentre to ensure that they are continued and enhanced.

4.1 RECRUITING A CO-ORDINATOR (MANAGER)

Finding a good Co-ordinator is probably the most important factor to ensure that the Telecentre achieves its goals. The Co-ordinator takes responsibility for the day-to-day management of the Telecentre. He or she is usually somebody from the community; somebody who is liked and respected; somebody who understands the community and can create the kind of atmosphere in the Telecentre which will make it an important asset to the community.

A good Co-ordinator will have a **vision** that incorporates his or her community and also expands beyond the community and even beyond the country. A good Co-ordinator needs to develop a sense of the value of networking, and the value of sharing information across boundaries and borders!

The Co-ordinator must account to the Management Committee of the Telecentre, but it is essential that they work as a team, with the Management Committee playing a hands-on role in providing the overall direction for the Telecentre and for the Co-ordinator.

A Telecentre can collapse very quickly if the Co-ordinator does not have the right qualities for the job.

4.1.1 WHAT DOES A TELECENTRE CO-ORDINATOR DO?

Obviously not all of the Co-ordinator's tasks will be the same for every Telecentre. However, there are certain essential functions that a Co-ordinator will have to perform for a Multi-purpose Telecentre:

1. Manage the day-to-day operations of the Telecentre.
2. Assist the Management Committee in activities to meet the objectives of the Business Plan.
3. Set up and maintain a logging system for the use of the computers and other equipment.
4. Supervise and maintain the Telecentre's security system.
5. Sign up users and introduce them to the Telecentre.
6. Show users and other staff how to use all of the Telecentre's equipment.
7. Assist users who wish to enrol for distance education courses.
8. Liaise with educational organisations and other organisations in the community.
9. Arrange tutorial and study assistance if this is required.
10. Organise self-help groups, orientation programmes and social events if required.
11. Maintain suitable records for the Telecentre.

12. Be responsible for the management, supervision and appraisal of any staff, and ensure that staff undertake their duties in accordance with their job descriptions, or as specified by the Management Committee.
13. Keep up to date with all new developments in the community concerning education, training, technology, communication, information and business enterprise.
14. Undertake training where necessary.
15. In consultation with the Management Committee and other relevant people, negotiate and co-ordinate employment and training opportunities for Telecentre users, where required.
16. Together with the Management committee, formulate, develop and review policies and procedures relating to membership of the Telecentre, usage, data collection, financial management, and other operations of the Telecentre.
17. Ensure that all policies and procedures are implemented and adhered to.
18. Promote the Telecentre.
19. Plan and co-ordinate activities to increase the number of Telecentre users.
20. Advertise the services offered by the Telecentre.
21. Identify and develop a network of users or potential users of the Telecentre.
22. Keep the community informed of the activities of the Telecentre.
23. Purchase appropriate hardware and software for the Telecentre in consultation with the Management Committee.
24. Ensure that the facilities of the Telecentre are maintained in good working order.
25. Advise the Management Committee of any future equipment and service requirements.
26. Develop and maintain a database of community skills.
27. Develop and maintain a database of potential funders of the Telecentre.
28. Seek on-going funding for the Telecentre by sending out fundraising applications, applying for government grants, etc.
29. Initiate and maintain revenue generating (money earning) programmes to achieve self-sufficiency for the Telecentre.
30. Provide information, assistance and advice to Telecentre users.
31. Take responsibility for the administration of any money that is paid into the Telecentre on a day-to-day basis.
32. Provide written reports to the Management Committee, funders, and others, as required.
33. Together with the Telecentre Management Committee, be responsible for the on-going evaluation of the Telecentre.
34. Attend Management Committee meetings and present monthly reports on the activities, usage and outcomes of the Telecentre and the activities and outcomes of the Co-ordinator's position.
35. Undertake additional tasks of benefit to the Telecentre as directed by the Management Committee.

A Telecentre Co-ordinator must be a very special person with many skills:

Excellent interpersonal and communication skills (verbal, written and presentation skills).

- Good community development skills.
- Knowledge of community resources and involvement in community activities.
- Well developed planning, organisational and problem-solving skills.
- The ability to plan and execute projects with very little direction.
- The ability to work independently and also as part of a team.
- Be able to speak and understand the local languages.

Good negotiating skills.

- Knowledge and experience of management issues such as business plans, annual reports, policy formulation, preparing funding proposals and budgets, letter and report writing.
- Computer literacy.

Public relations skills.

- The ability to sell ideas.
- A basic understanding of training systems.
- The ability to train additional staff.

Basic research skills.

- A driver's licence
- Knowledge of how office equipment works, and of how to maintain the equipment
- Knowledge of Microsoft word-processing, database and spreadsheet computer programmes.
- Knowledge of desktop publishing computer programmes.

ESSENTIAL SKILLS AND EXPERIENCE FOR A CO-ORDINATOR

DESIRABLE SKILLS AND EXPERIENCE FOR A CO-ORDINATOR

4.1.2 THE SELECTION AND HIRING PROCESS

To find the right person, the Management Committee will need to:

- Draw up a job description.
- Search for the right person or advertise the position.
- Make a short list of the best applicants.
- Hold interviews.
- Appoint the Co-ordinator.

Drawing up a job description

The key elements of a job description are:

- A brief description of the Telecentre and its mission or purpose.
- A description of the job, the job title and the lines of accountability.
- Duties and responsibilities of the job.

- Qualifications or skills needed.
- Salary and benefits of the job.
- The deadline for applications.
- A request for references.

Note: Since the Co-ordinator's job requires quite a bit of writing work, it is best to ask applicants to provide some examples of proposals, reports, etc. they have written in the past.

Finding the right person for the job

Steering and Management Committee members may have some ideas of how to find the right candidate. Every member of the Steering Committee and the Management Committee should circulate the job description in their own working areas. Other ways to advertise the position include:

- Advertisements in newspapers, on community bulletin boards and the notice boards of NGOs, government offices and any sympathetic organisations or agencies in the community. Community newspapers, community radio stations, local businesses and possibly even local employment agencies can also be used to advertise the position.
- A word-of-mouth network is very important because the ideal candidate will be a person from the community.

Make a shortlist of the best applicants

The Management Committee will need to:

Review all applications for the Co-ordinator's position.

Check references through personal telephone calls.

Make a shortlist of about three to five of the best candidates for the job.

Interview the short listed candidates

A first interview should be held with the full Management Committee.

A second interview can be scheduled with the Steering Committee.

Appointing the Co-ordinator

Once the Management Committee has decided who is the best person for the job, a letter of appointment must be written to the person which gives the responsibilities, the remuneration and the benefits of the job. The letter should also indicate that the Co-ordinator would be employed for a trial period of approximately three months, during which time the appointed person or the Telecentre can end the appointment without any penalty.

Note: A trial period is also important for volunteers. Even if somebody is donating his or her services to the Telecentre at no charge, the person needs to be the right person for the Telecentre.

The Management Committee must make sure that personnel policies are in place (regardless of whether there are one or ten employees for the Telecentre). These policies will cover employee benefits (such as a medical aid and provident fund), wage increases and performance review processes as well as the notice period, tax requirements and grievance procedures. It is very important that the Management Committee is sure of all the laws of the country and that it meets all the legal obligations of being an employer.

Note: Refer to the proposed Timeline for setting up a Telecentre in Section 2. You will see that the Co-ordinator is appointed after the Telecentre premises have been found and before hardware and software purchases are made. It is not always possible to follow the steps in the preferred order, but as far as possible the Telecentre Co-ordinator should be involved with decisions about which hardware and software to purchase. After all, it is the Co-ordinator who will have to teach Telecentre users how to handle the equipment. Choices and processes for purchasing computer hardware are covered in full in 3.3.4 *Hardware and Equipment* page 40.

4.2 DAY-TO-DAY MANAGEMENT ISSUES

4.2.1 DAILY ACTIVITIES

It is recommended that the Telecentre be inspected at opening and closing time and during the day. You have to make sure that the equipment is always working properly, that the facilities are clean and that the printers, fax machines and photocopiers are always filled with paper. There are also a number of things to attend to at the start or close of each day:

- See that all electrical appliances are plugged in and switched on every morning before start of business. Check all telephones for dial tone and generate a fax report on close of the daily business.
- Record the meter readings of the monitoring systems in the customer telephones, computers and photocopier.
- Check that the computers and connected printers are working.
- Record spoilt photocopier and printer papers, ensure that there is enough paper in the printer, photocopier and fax machine and ensure that the Telecentre always has spare paper sheets and toner.
- You should always have enough spare items for the total Telecentre needs for a period of time which is twice as long as the average delivery time.
- Service the equipment regularly, and do not wait until it has broken down. Request for assistance if needed.
- Keep the Telecentre clean and if there is any damage to the premises, furniture or equipment have it fixed immediately.

It is important that customers do not find that the telephone, fax or PC are faulty, particularly those who have travelled a long way or those who urgently need the Telecentre's services. Many customers do not report a breakdown, so even more customers will suffer. So it is vital to check continuously whether the equipment is still working properly. Customers should be asked when they leave if they are satisfied - it makes a good impression and moreover they might provide useful information.

A clean Telecentre not only invites people to use it, but it also causes fewer breakdowns. Here are some important cleaning guidelines:

- Do not expose equipment unnecessarily to moisture, heat and water.
- Clean the equipment regularly with an anti-static cloth.
- Do not use cleaning fluid or furniture polish on the equipment.

The Telecentre operator is expected to know how to operate all the equipment in the Telecentre. For example, how to replace a toner, a cartridge, carbon paper for the management system, paper for the printer, etc. Telecentre operators must also be able to find faults before they occur and if possible, be able to fix them. A system also needs to be set up so that the times when the equipment is due for service are known and planned for. Calling in a technician for repair should be the last option, but should not be delayed unnecessarily, in order to avoid delaying the service to the customers.

By the end of the day, after closure for customers, three things must be done:

- Inspect and register premises and equipment (see checklist).
- Draw your daily report on the services rendered and finance involved. You must fill in a daily reporting form to be submitted to the Management Committee.
- Collect any Complaint Registration Forms and Fault Registration Forms and add them to the daily report.

You must ensure that you can get your supply of toners, papers, floppy disks, etc. The following stock control and ordering guidelines may help:

- Always know how many paper sheets, toners and floppy disks you still have in stock.
- Register the stock and usage of these items daily in order to know when it will be necessary to order more stock.
- Be aware of delivery times after ordering. This will be different for the different items such as paper sheets, toners and floppy disks. Keep a note of the delivery times for the various items because it will help you to maintain your stocks.
- Order from the supplier as early as twice the delivery time before the stock is used up. For example, if it takes two days to receive paper after ordering it, you should place your order four days before you expect to run out of paper.
- Keep a list of suppliers, their addresses, telephone and fax numbers etc.

4.2.2 COMPLAINTS HANDLING

A customer who is not satisfied with the service of the Telecentre may complain to you. Deal with a complaint in the following way:

- Always try to stay in a calm and friendly mood when dealing with complaints; never become angry. The customer is the most important person in the Telecentre.
- Listen carefully and apologise. Acknowledge the customer's feelings and explain what action you will take to correct the problem. Thank the customer for bringing the problem to your attention.
- Learn to accept criticism – always stay friendly and try to solve the problem quickly. Be creative; apply emergency solutions as far as is reasonable.
- Never try to avoid people who are always complaining or moaning. Welcome them at all times. Do not let things become personal and remain calm, even if the customer is unreasonable. Focus on the problem, not on the person. Reward yourself for turning a difficult customer into a happy one.
- If you cannot fix the complaint, do not hesitate to ask for help from your community or the supplier concerned. Avoid delay. Act according to the guidelines in the section on Faults Handling.
- Register all complaints and report them to the Telecentre Manager on a daily basis.
- If the customer does not receive the completely service that he or she wants, do not let him or her pay. The customer expects the services to be provided on a service guarantee basis.

- If reasonable, compensate customers for the loss of service, for example by giving them extra service, attention and assistance - you can re-send faxes or make photocopies for the customer yourself.
- Behave in such a way that the customer will return to your Telecentre.

A complaint registration form is shown in Appendix 1 of this manual. Although complaints reporting to the Management Committee is only done monthly, the Committee should be involved immediately if there is an emergency. Complaints may differ from one circumstance to another. If the customers complain about the behaviour of the Telecentre Manager, the manager should see to this. If the customers complain about poor service from the equipment at the Telecentre, it then becomes the responsibility of both the staff and the manager to correct this.

Complaints registration and reporting is very important because only in this way is it possible to learn from problems and improve services for the benefit of our Customers.

4.2.3 FAULTS HANDLING

In order to avoid a service breakdown, all faulty equipment must be attended to immediately. For example, telephone faults have to be reported to the Telecom Operator or equipment supplier (or servicing company) immediately. The supplier concerned must say immediately and clearly how quickly he will attend to the problem. Only in this way will services to the customers be restored quickly.

Fault handling depends on the problem. Standard fault reaction procedures should be applied as much as possible. Standard reactions are given below.

Here are some common faults that you can expect:

- Telephone line(s) out of order
- Telephone set(s) out of order:
- Monitoring system of telephone sets out of order
- Fax-machine not working
- Photocopier not working
- Computers or printers out of order.

You must clearly register faults and the date and time when you requested repair, as well as the time taken to repair the faulty equipment. This information should be included in the daily report to the Management Committee and in the monthly report. This is important because if a supplier fails to meet the agreed service levels, the reporting will allow the management to apply pressure on the suppliers – there will be a penalty or financial compensation as indicated in the service agreement. The suppliers will then ensure quick repair of faulty equipment.

When something goes wrong, this is what you should always do:

- Explain clearly to the customers what is wrong and what you can still offer them on a temporary basis.
- Establish all steps necessary to resolve the technical problem such as phone line repair, fax repair, etc. This will include letting the supplier know. The Telecentre Manager should try as much as possible to solve small problems him or herself.
- Find a temporary emergency solution if possible so that you can keep customer service going as much as possible.
- Fault registration and reporting is essential for fast recovery - put pressure on the suppliers.

Especially when telephone lines or telephones are not available for the customers, dedicated emergency steps are needed in order to avoid customer dissatisfaction. Emergency steps you can take to provide temporary emergency facilities are:

- Make one telephone line and one telephone set available for customers by temporarily dedicating the Manager's telephone or the fax line (if it is working) for the customers.
- Apply non-standard time-registration during customer calls by using a stopwatch.

This procedure is extremely important, because customers should never be turned away if customer telephones or lines are out of order and the counter-equipment is still working properly. The customer is the most important user of communication facilities and should therefore not be disappointed.

4.2.4 REVENUES

In order to show the Telecentre's revenues, it is necessary to record all financial transactions in the relevant books, e.g.:

- Register service transactions for all services separately (telephone, fax, copiers, computer usage, printouts, scanned pages, etc.), with the payments received.
- Keep a daily cash book indicating all payments and receipts.
- Keep bank statements to record banking transactions.
- Determine profit or loss on a daily basis in the daily report on services and finance.
- Make a daily income and expenditure statement for the Management Committee as well.

Note: The entries **must** be done daily, weekly, monthly and annually.

Other important points of attention regarding financial management of the Telecentre are:

- Drawing up a monthly budget.
- Opening a dedicated bank account for your Telecentre business.
- Paying all your debtors in time.
- Keeping proper books of records for your stock or stationery and ordering your stock in time. In other words, know your inventory and always anticipate what you will need.
- Generating a management report on a daily basis.

4.2.5 MONTHLY REPORTS

You will be supporting your Management Committee by generating a monthly report. The report must detail the activities and finances, plans to improve the Telecentre and its equipment and the problems such as complaints and frequent/serious faults, if there are any. Forward copies of your monthly reconciliation including the bank statement in the first week you receive them. Monthly reports should cover the following general categories:

- Services rendered.
- Revenues and expenses, specifying the different service categories.
- Overall financial statement.
- Consolidation of complaints and the way complaints have been handled.
- Consolidation of faults and the way fault handling has been done.
- Status of premises and equipment.
- Any other relevant incidents and developments.

You must make up the monthly report from the daily reports, which you submit, to the Management Committee.

In addition to standard information on finances and problems, the Management Committee is expected to indicate the progress that is being made by the Telecentre: whether and to what extent the Telecentre helps to improve the livelihood of the people it serves, or whether it causes more problems.

Appendix 1 page 101 gives a standard format for monthly reports.

4.3 ON-GOING MARKETING AND PROMOTION

A Telecentre's on-going marketing plan is to maintain visibility in the community, to further promote the Telecentre and to continue to stimulate interest in the Telecentre's activities within the community. Marketing will revolve around the Telecentre's noteworthy activities and accomplishments such as:

- New programmes.
- New partnerships.
- New Steering Committee members.
- Creating Telecentre web pages on the Internet.
- Success stories of participants.
- Feature articles on the Co-ordinator and special volunteers.
- An article reviewing the Telecentre's activities over a period of time.
- Any new sponsorships.
- Any special attention received from government officials, corporations, the media, or community organisations.
- Designing a logo for the Telecentre.
- Developing a brochure for the Telecentre.
- Publishing a monthly newsletter about the Telecentre.

4.3.1 MANAGING THE TELECENTRE'S PUBLIC RELATIONS

Open and regular communication between the Telecentre's Steering Committee, management structure and Co-ordinator are crucial. There needs to be on-going communication to ensure that pertinent information is circulated promptly throughout the community.

4.3.2 CREATING MEDIA OPPORTUNITIES

A Telecentre will want news of its activities to have the widest circulation possible within the community. In order to get this type of exposure; various types of media will need to be identified. Here are some avenues that are worth exploring:

- **Newspapers, including supermarket papers, school newsletters, church pamphlets, etc.** It is worth exploring special sections in newspapers, such as community activities or development sections or special sections in Sunday newspapers on technology or personal profiles, etc.
- **Television.** The Telecentre will need to keep track of programmes on the public broadcaster as well as on community television stations. It is important to find out whether any free airtime is offered to advertise community services.
- **Radio stations.** This includes public and private radio stations. A Telecentre should keep a track of talk shows where the Telecentre Co-ordinator or a member of the Management Committee could be interviewed. In addition, regular shows are now being aired on a number of community radio stations which provide updates and news on what is happening nationally and internationally via the Internet, provided by the local Telecentre. A Telecentre Co-ordinator needs to be creatively exploring possibilities all the time, and making connections. For example, if a Steering Committee member happens to be a banker and there is a programme with a specific focus on the way in which banks are or are not serving members of the community, this could be an opportunity to persuade the radio producer to interview this Steering Committee member. When he is interviewed about his views on the relationship between banks and members of the community, the Steering Committee member could speak about his involvement with the community through the Telecentre. This is just an example of how anything is possible for a Telecentre's Co-ordinator who is always thinking on his or her feet about creative ways to promote the Telecentre.
- **Publications produced by partners, including corporate newsletters and pamphlets produced by NGOs.** The Telecentre can produce regular press releases for inclusion in newsletters, pamphlets and other promotional material produced by partners.
- **Community bulletin boards.** Community bulletin boards are key places to advertise the Telecentre schedule, staff openings, the need for volunteers, and special events.
- **Trade publications.** The Telecentre should identify trade newspapers, magazines and other publications in which to place articles and press releases. In this way the Telecentre may get offers of technical assistance and even funding, as well as publicity.
- **Magazines.** Find out about any monthly magazines published in your area.

Successful marketing is obviously vital to ensure that your Telecentre is an integral part of the community. Although a clear marketing or outreach plan is essential as a guide, you should never stick rigidly to your plan. Always be on the look out for new opportunities to attract new users and consolidate the position of the Telecentre in the community.

4.4 MAKING RULES

Every Telecentre needs a list of rules for users and staff. The purpose of these rules is to ensure that every user gets the full benefit of the Telecentre and that proper records are kept so that the Telecentre can become sustainable in the future. Rules also enable the very busy Telecentre Co-ordinator and staff to get on with their numerous tasks, rather than wasting time explaining the Telecentre rules to users over and over again. The rules are to protect the Telecentre and to protect Telecentre users' rights to use the Telecentre equipment productively and effectively.

Rules should make sense to the Telecentre staff and to the community. If a Telecentre rule is that nobody should run in the Telecentre, the purpose of this rule is to ensure that nobody trips over a cable and harms himself or herself. If a rule is that nobody should eat their lunch while they are accessing the Internet, the purpose of this rule is to ensure that the crumbs and leftovers of somebody's lunch do not damage very expensive equipment!

Many of the Telecentre's rules should be displayed on signs in the Telecentre. For example, a sign setting out the rules for the use of computers, the TV and telephones will be useful. There could also be a sign giving the costs of photocopying, faxes, coffee and tea. Signs showing which rooms in the Telecentre are set aside for specific purposes will also be helpful. Because each Telecentre will be unique, it is not possible to prescribe which signs will be most useful.

Every Telecentre user should be given a set of rules that they sign and agree to. Here is a list of possible rules for Telecentre users:

When you sign in, you agree to abide by the following:

1. All users must sign in before sitting down to use the equipment.
2. All users must pay for the services they receive from the Telecentre.
3. No food or drink is allowed near the computers.
4. If the application you are using has sound, please make sure that you turn it off or use headphones.
5. Users under the age of 14 are welcome to use the Telecentre until 17:00 only.
6. An adult must accompany children under the age of 10.
7. Adults and youth have equal access rights to the computers when they are both present in the Telecentre at the same time.
8. Telecentre staff and volunteers reserve the right to ask anyone to leave the Telecentre at any time, for any reason.
9. Users who copy software from any of the computers or who intentionally delete or alter the contents of a computer's software will not be allowed to use the Telecentre again.
10. Telecentre users should be sensitive at all times to other activities taking place. They should not make noise and should not interfere with other Telecentre users.
11. At closing time, Telecentre users should complete what they are doing quickly and leave the premises.
12. Computers can only be used during the hours prescribed. If you arrive too early, please wait in the reception area (or outside).

4.5 PROTECTING TELECENTRE STAFF, CUSTOMERS AND PROPERTY

As with any business or community service, a Telecentre's survival depends on its ability to provide services that are in demand. The services offered by a Telecentre depend on the proper functioning of valuable equipment, which cannot be easily replaced because of the costs involved. For this reason, it is of utmost importance that equipment should be well maintained and kept secure from theft and damage. Aside from taking out insurance as described in the previous section, there are a variety of management tasks that will help keep the Telecentre in order.

When any item or special service is brought into or taken out of the Telecentre, a description, serial number (if any), and the date and time should be noted and signed by a Telecentre staff member. This information will automatically be tracked in the case of the normal sale or rental of goods. The inventory lists and events register should be updated every month.

4.5.1 MAINTAINING AN INVENTORY

To be able to keep track of all the items in the Telecentre, it will be necessary to keep a list or database of all the pieces of equipment, the software and the services used by the Telecentre.

4.5.1.1 THE HARDWARE AUDIT

As with software, an inventory of hardware should be maintained. It should include:

Details of all purchases and acquisitions with model numbers, serial numbers, dates, sources, purchase prices or equipment value, and warranties.

A list of sources for maintenance and repair for each type of equipment.

4.5.1.2 THE SOFTWARE AUDIT

After software has been purchased for a Telecentre, it is very important to make an inventory of the software and to update it regularly. The list should include details of the version number of the software; the date of purchase; the date of registration; the price; the number of copies; and the location in the Telecentre. This inventory is important for the following reasons:

- It will help the Telecentre to keep track of its software resources.
- It will assist new staff and volunteers to get to know the range of services offered by the Telecentre.

It will serve as a guide for additional software to be purchased by the Telecentre.

4.5.2 RISK MANAGEMENT

Risk management covers issues of security for the Telecentre and insurance of the Telecentre property, staff, and the public.

The best way to minimise risk in a Telecentre is to promote a sense of ownership and pride in the Telecentre among users and the community at large. However, certain standard measures are necessary to ensure the safety of the Telecentre's staff, users and equipment.

Risk to systems, software and data

Although insurance policies that guarantee against loss of data and software due to viruses are available, they are expensive and out of reach for most Telecentres. To prevent damage to data and software, a Telecentre should:

- Prohibit the use of disks or software brought in by users.
- Install virus protection software on all the computers.
- Update the virus protection software with new virus definition files regularly
- Educate users about the effects that viruses could have on the Telecentre's ability to function.
- Encourage Telecentre users and staff to keep track of any information on the Internet about new viruses that may enter the Telecentre's system through Internet usage.

Risk to life, limb, and equipment

A Telecentre building and its hardware, software, furniture, staff and users are vulnerable to harm caused by theft, vandalism, accidents and natural disasters. For example, an overhead pipe may burst, putting a number of systems out of operation and damaging the clothing or personal possessions of participants. Someone may trip over a cable and fall.

A risk management programme establishes preventative measures to minimise risk and to ensure that Telecentre staff and users are aware of the measures in place and co-operate to ensure that they are enforced. There are many different approaches to risk management and the needs of a Telecentre in a remote rural area may be quite different to the risk management needs of a Telecentre in a city.

Minimising the possibility for accidents to occur

- As described above, establish rules on how to behave in the Telecentre such as "No Running!". "No Food and Drink next to the Computers!" These rules can be stuck on the walls and doors of the Telecentre. All Telecentre users should be told about the rules and Telecentre staff and volunteers should make sure that they are enforced.
- Attach cables to the ceiling rather than on the floor.
- Have roll-out mats at all outside entrances to the Telecentre.
- Use power surge protectors on all systems.
- Regularly check any overhead installation of plumbing and wiring for defects.

Limiting harm to staff and members of the public

- Ensure that more than one staff member is on duty at night.
- If necessary arrange for additional police protection around the Telecentre.
- If feasible, hire a security guard.

Limiting opportunities for theft and vandalism

- Do not give keys to the Telecentre to too many people
- Keep a list of everybody who has a key to the Telecentre.
- Change the Telecentre's locks from time to time.
- Install a security gate over the Telecentre door, or, if possible, install an electronic gate with a buzzer.

- Secure computers, keyboards, printers, and other hardware to the desks and tables in the Telecentre. Special security cables are available for this.
- Lock all portable equipment in cupboards when not in use.
- Store software back-ups in a secure place off the Telecentre premises.
- Keep the Telecentre lights on at all times.
- Install an alarm system.
- Minimise the amount of cash stored on the premises.
- Consult the local police for other suggestions.

Note: A risk prevention plan should be drawn up by the Telecentre's Management Committee. The Telecentre Co-ordinator should know about this plan. A list of phone numbers of insurance agents, service agents and emergency services should be easily accessible.

Once the Telecentre's risk management plan has been decided, copies should be distributed to all Telecentre staff.

4.6 TRAINING OF STAFF

A structured orientation programme is important for any new staff. Such a programme should include:

- A warm welcome
- Introduction to the mission and goals of the Telecentre.
- Introduction to Steering Committee members, other agency staff or any Telecentre staff already on board
- An opportunity to become familiar with the Telecentre's resources - where things are kept, what software is available, what procedures are in place.

For volunteers, the orientation should provide an opportunity to meet with their supervisor to discuss their assignments, establish an individual schedule, and review and sign the commitment letter.

Once new staff has been oriented, they may need specialised training to carry out their functions. Technical training to operate the equipment will be top of the list, but other important areas include: customer relations, financial management, fundraising, how to train users, Internet searching and information retrieval.

Training in even very small details is important as small problems can inactivate the computers if staff are not trained to deal with them (such as changing the bulb in an overhead projector). This should be taken into account in the basic training, along with changing cartridges, toner, and other very basic tasks.

A training manual could be developed by the Telecentre to provide support for on-going staff training programmes.

4.7 FINDING MORE INFORMATION AND SUPPORT

There are a growing number of Telecentres being established all over Africa and there is much learning that could be shared between them. A Telecentre Association for Africa is being discussed which could provide a network for information sharing and learning. A national Telecentre Association may be active in your country and this is an invaluable forum for exchanging experiences and for lobbying for actions to support Telecentres.

There are a variety of web sites or web pages focusing on Telecentres. These can provide up-to-date information on activities and lead you to other Telecentres and Telecentre activities that you could learn from and obtain support from. These include:

Telecentres.Org: <http://www.telecentres.org>

The South African Universal Service Agency: <http://www.usa.org.za>

Australian Rural Telecentres Association: <http://www.arta.org.au>

African Telecentres Experience Page:

<http://www.agricta.org/afagrict-l/telecentres.htm>

The US Community Technology Centers' Network (CTCNet): <http://www.ctcnet.org>

ITU Universal Access: <http://www.itu.int/ITU-D-UniversalAccess>

IDRC Telecentre Page: <http://www.idrc.ca/acacia/telecentre.html>

5 APPENDICES

5.1 POTENTIAL USER PROFILE QUESTIONNAIRE

Interviewer: _____

Date and time of interview: _____

Language used in interview: _____

1. Residence:

- town ?
- rural village ?
- outside town/village ?
- other ? what? _____

Name of commune/village/town _____

2. Age:

less than 15 years ? 15-24 ? 25-34 ? 35-44 ? 45-54 ? 55 years old and over ?

3. Sex:

Male ? Female ?

4. Languages:

Mother Tongue: _____ Speak: ? Write: ?

International Languages:

English:	Read: ?	Speak: ?	Write: ?
French:	Read: ?	Speak: ?	Write: ?
Spanish:	Read: ?	Speak: ?	Write: ?
Portuguese:	Read: ?	Speak: ?	Write: ?
Arabic:	Read: ?	Speak: ?	Write: ?
Other _____	Read: ?	Speak: ?	Write: ?

5. Educational Level

- Did not attend school ?
- Koranic or other traditional school ?
- Some primary school ?
- Primary school diploma ?
- Some secondary school ?
- Secondary school diploma ?
- Some post-secondary school ?
- Post-secondary diploma ?
- Other _____ ?
- Currently a student? Yes ? No ?

Access to Communications/Information

Institution	11. How far is _____ from your home? <i>In my home</i> <i>0-500 meters</i> <i>501- 1Km</i> <i>> 1 Km to 3 Km</i> <i>> 3 Km to 5 Km</i> <i>> 5 Km</i>	12. How do you travel there? <i>On foot</i> <i>Private vehicle</i> <i>Public transport</i> <i>Other*(Indicate</i>	13. How long does it take? <i>0-10 min</i> <i>11-30 min</i> <i>31min-1 hr</i> <i>>1 to 2 hrs</i> <i>>2 hrs</i>	14. Travel cost? <i>0</i> <i>1-100 CFA</i> <i>101-500 CFA</i> <i>501-1000 CFA</i> <i>1001-5000 CFA</i> <i>>5000 CFA</i>
Post Office				
Private Telephone				
Public Telephone				
Newspaper vendor				
Bookstore				
Cinema				
Clinic/ Hospital				
Library				
Telecentre/ Cybercafe				

*

15. Do you subscribe to a newspaper or magazine?

16. Do you regularly read a newspaper or magazine?

If yes, what kind?

News? Sports? Women's ? Business? Professional?

Other ? _____

17. Have you ever used a computer? Yes? No?

For wordprocessing? Yes? No?

For e-mail? Yes? No?

For Internet? Yes? No?

Other:? _____

What kind of information do you need?

Information Type	18. Importance		19. Priorities (Chose only 3)	
	<i>Very important</i>	<i>1</i>	<i>Most Important</i>	<i>1</i>
	<i>Of some importance</i>	<i>2</i>	<i>Second</i>	<i>2</i>
	<i>Of little importance</i>	<i>3</i>	<i>Third</i>	<i>3</i>
	<i>Not interested</i>	<i>4</i>		
Education/new skills				
Health care				
How to improve my product/service				
Current prices for my product/service				
Sources of inputs				
Market opportunities for my products/services				
Available jobs				
Social and cultural events				
Weather				
Government information – taxes, laws, regulations, procedures				
News/Sports				
Culture				
Religion				
Tourisme				
Other:				

What are the most important information that you would like to communicate to people outside of your community?

Information Type	20. Importance		21. Priorities (Chose only 2)	
	<i>Very important</i>	<i>1</i>	<i>Most Important</i>	<i>1</i>
	<i>Of some importance</i>	<i>2</i>	<i>Second</i>	<i>2</i>
	<i>Of little importance</i>	<i>3</i>		
	<i>Not interested</i>	<i>4</i>		
Who you are/what you do				
What you have to sell				
Your culture				
Social and cultural events				
What you can do (you are looking for employment or funding)				
Other				

24. Do you have commercial relations with people/organisations:

In the capital?	Yes?	No?
Elsewhere in the country?	Yes?	No?
Elsewhere in Africa?	Yes?	No?
Elsewhere in the world?	Yes?	No?

Communication and Information Profile

	25. yes no	26. Where do you _____?	26. Last time, it was for what purpose?	26. How much did it cost?	26. Most often it is for what purpose?	26. Frequency (How often do you _____?)
		At home Friends/relatives Public facilities	Social – family/friends Education/training Health Business/commercial Government Info News Sports Entertainment Emergency/Security Other	0 1-100 CFA 101 – 500 CFA 501 – 1000 CFA 1001 – 2500 CFA 2501 – 5000 CFA more than 5000 CFA	Social – family/friends Education/training Health Business/commercial Government Info News Sports Entertainment Emergency/Security Other	Never Everyday Every week Every month Every quarter Rarely
Do you send letters out of town?						
Do you receive letters from out of town?						
Do you make out of town telephone calls?						
Do you receive out of town telephone calls?						
Do you send faxes?						
Do you receive faxes?						
Do you use e-mail?						
Do you use Internet?						
Do you listen to the radio?						
Do you watch TV?						
Do you listen to audiocassettes?						
Do you watch video cassettes?						

Do you send information to:

	26. Frequency	26. Means	26. Average Cost
	Never Everyday Every week Every month Every quarter Rarely	Messenger Travel Letter Telephone Fax E-mail Other	0 1-100 CFA 101 – 500 CFA 501 – 1000 CFA 1001 – 2500 CFA 2501 – 5000 CFA more than 5000 CFA
The capital?			
Elsewhere in the country?			
Elsewhere in Africa?			
Elsewhere in the world?			

Do you receive information from:

	26. Frequency	26. Means	26. Average Cost
	Never Everyday Every week Every month Every quarter Rarely	Messenger Travel Letter Telephone Fax E-mail Other	0 1-100 CFA 101 – 500 CFA 501 – 1000 CFA 1001 – 2500 CFA 2501 – 5000 CFA more than 5000 CFA
The capital?			
Elsewhere in the country?			
Elsewhere in Africa?			
Elsewhere in the world?			

5.2 QUESTION GUIDE FOR ORGANIZATIONAL INTERVIEWS

Name of Person Interviewed: _____

Date of Interview: _____

Name of Organization: _____

Type: _____

Mission/Objective:

Principle activities: _____

Number of Members/Employees: _____

1. What are the principal types of information used by the organization? Which are the most important?
2. What are the sources for this information?
3. What are the means used to get the information? (Telephone, fax, letters, etc.)
4. What is the cost? (annual or month expenses if possible)
5. Are they satisfied with the information they receive in terms of its quality, quantity, and timeliness?
6. What factors limit the quantity, quality, or timeliness of the information they currently received?
7. What kinds of information would they like more of? Why?
8. What are the principle types of information communicated by the organization – internal and external? Which are the most important?
9. To whom does it communicate this information?
10. What are the means used to communicate the information?
11. What is the cost? (annual or month expenses if possible)
12. Are they satisfied with their ability to communicate information in terms of quality, quantity, and timeliness?

13. What factors limit the quantity, quality or timeliness of the information they communicate?
14. Do they currently use computers? For what purposes?
15. Do they currently use e-mail? For what purposes? How many messages per week do they received or send?
16. Do they currently use Internet? For what purpose?
17. Would they be interested in using an MCT? (Explain the type of services the MCT will offer)
18. If yes, what services would they use most?
19. What price would they pay for those services?
20. Would they be interested in renting temporary office space in the MCT?
21. What would they use the space for?
22. If so, what price would they be willing to pay?
23. What impacts might an MCT have on their organization?
24. What impacts (positive and negative) might an MCT have on the city of Timbuctu? On the region?
25. What advice would they give for the success of the MCT?

5.2.1 QUESTION GUIDE FOR ORGANIZATIONAL INTERVIEWS

Name of Person Interviewed: _____ Date of Interview: _____

Name of Organization: _____

Mission/Objective: _____

Principle activities: _____ Number of Members/Employees: _____

1. Information	2. Source	3. Means	4. Cost	5. Satisfaction	6. Limits

7. More?

8. Information	9. To whom?	10. Means	11. Cost	12. Satisfaction	13. Limits

14. Use computers? Yes No
 Purpose: _____
15. E-Mail? Yes No
 Purpose: _____
 Number of messages per week: Sent Received
16. Currently use Internet? Yes No
 Purpose? _____
17. Interested in using TCP Yes No Not certain
 If yes, for what?: _____
18. Which services would they use the most?

19. Price willing to pay?

20. Interested in renting space? Yes No
21. Use

22. Price willing to pay: _____
23. Expectations of impact for organization of MCT:

24. Expectations of impact for Timbuktu of MCT:

25. Advice for success of MCT:

5.3 USEFUL FORMS

In the following is listed a number of standard forms.

Technical data item details

For each piece of equipment, the following data should be registered and kept in the Telecentre:

General		
	Item	
	Description	
	Model	
	Manufacturer	
	Serial number	
	License number (if any)	
	Parts (e.g. software)	
Purchase		
	Purchase price	
	Date of purchase	
	Purchase order number	
	Purchaser	
	Purchase authorised by	
Supplier		
	Name	
	Postal address	
	Physical address	
	Telephone	
	Fax	
	E-mail address	
Warranty		
	Type of warranty	
	Warranty period	
	Commencement	
	Expiration	
	Extended warranty period	
	Commencement	
	Expiration	
Maintenance		
	Maintenance company	
	Type of contract, service	
	Telephone number	
	Fax	
	E-mail address	
	Type of contract	
	Contract period	
	Expiration	
Various		
	Notes	

5.3.1 TARIFFS

The services listed below are offered by the Telecentre at the following tariffs:

5.3.1.1 CALLS

Calls	Price per impulse	Addition per call	Starting tariff
Telephone calls made			
Telephone calls received			

5.3.1.2 FAXES

Faxes	Price per impulse	Price per page	Starting tariff
Faxes sent			
Faxes received			

5.3.1.3 PAGES

Pages	Price per page	Starting tariff
Pages copied		
Pages printed		
Pages scanned		

5.3.1.4 COMPUTERS

Computers	Price per minute	Starting tariff
Computer used		
Internet used		
E-mails sent		
E-mails received		

Note: All tariffs should be displayed in each Telecentre, at all times, clearly visible for all incoming Customers.

5.3.2 DAILY REPORT FORMS ON SERVICES AND FINANCE

Daily Report on Services and Finance

Paid services	Number	Amounts
Customer visits		
Calls made		
Impulse calls made		
Calls received		
Impulse calls received		
Faxes sent		
Impulse faxes sent		
Faxes received		
Impulse faxes received		
Copies made		
Sheets scanned		
Pages printed		
Hours computer usage		
Internet and e-mail		
Total revenue		
Missed payments/run-aways		

Expenses	Amounts
Deliveries of commodities, spares, etc.	
Telephone	
Rent	
Water and electricity	
Stationery	
Salaries/wages	
Security	
Petty cash	
Sundry expenses	
Cleaning	
Other office cost	
Totals	

Cash operations	Amounts
Cash position at opening	
Amounts received (= totals services above)	
Cash withdrawal from bank	
Cash deposits to bank	
Payments made (total expenses above)	
Calculated cash position	
Realised cash position at closure	
Cash difference	

5.3.3 MONTHLY REPORT FORMS

Monthly income statement		
Telecentre:		Month:
Services	Number	Income
Telephone calls made		
Telephone calls received		
Faxes sent		
Faxes received		
Photocopies		
Scanner		
Computer printing		
Computer usage		
Internet and e-mail		
Total income		

Monthly expense statement		
Telecentre:		Month:
Categories	Number	Income
Telephone/fax impulse		
Rent		
Water and electricity		
Stationery		
Salaries/wages		
Security		
Petty cash		
Sundry expenses		
Cleaning		
Repair of premises/furniture		
Repair of equipment		
Commodities and spares		
Various office expenses		
Total expenses		

Monthly cash flow statement	
Telecentre:	Month:
Description	Amount
Cash position at start of month	
Total income, total amounts received	
Total expenses	
Bank deposits	
Bank withdrawals	
Payments to community	
Calculated final cash position	
Realised cash position at month's end	
Cash difference	

5.3.4 COMPLAINTS REGISTRATION FORM

Telecentre complaints registration form	
Name of Telecentre	
Name of Telecentre Manager	
Date and time of complaint recorded	
Complaint description	
Name of complaining customer	
Recommended action	
Realised action	
Complaint settled date	
Realised solution	
Complaint forwarded to	
Customer compensation (if any)	
Special remarks or notes	

5.3.5 FAULT REGISTRATION FORM

Telecentre fault registration form	
Name of Telecentre	
Name of Telecentre Manager	
Date and time fault recorded	
Fault description, equipment	
Recommended action	
Realised action by self	
Fault forwarded to supplier	
Date and time of forwarding	
Date fault settled	
Realised solution	
Complaint reported to	
Estimated damage	
Repair cost	
Special remarks or notes	

5.3.6 MATERIALS ORDER FORM

Telecentre materials order form	
Name of Telecentre	
Name of ordering Manager	
Date and time	
Ordered product and quantity	
Estimated price	
Supplier name	
Supplier telephone/fax	
Indicated delivery date	
Express delivery or not	
List of products delivered	
Quantity delivered	
Realised delivery date	
Realised price	
Special remarks or notes	

5.3.7 TELECENTRE OPENING FORM

Opening activities - date:	Result
Inspect premises, give okay or indicate problems	
Inspect cleanliness, same	
Counter telephone working (dial tone)	
Customer telephones working (dial tone)	
Fax machine working; paper sheets okay	
Copier working, paper sheets okay	
Computers working paper in printers	
Scanner working	
Stock of paper sheets (give number)	
Stock of toner (give number)	
Stock of floppies (give number)	
Do you have to call a supplier for repair? Which if any	
Have articles been ordered? Which if any	
Write down meter readings of all customer telephones	
Write down meter readings of fax, copier and scanner	
Write down the amount in cash available	

5.4 MODEL BUSINESS PLAN AND 1ST YEAR BUDGET

Here is an example of a business plan, which can be used as a checklist to refine an actual Telecentre proposal. When writing their own business plan, the proposers of the Telecentre should go through each item and modify, add and delete according to their local conditions. All names below are fictitious.

Tsekesedi Community Telecentre, Mubanga

1. Introduction

This document outlines the proposed strategy for the establishment of the Tsekesedi Community Telecentre. It describes the financial, marketing and operational activities that will take place to ensure its success.

2. Description of the Proposed Business

2.1 The name of the proposed Telecentre

Tsekesedi Community Telecentre

Physical Address: Old Harare Road, Mberenga, Midlands

Postal Address: Box 101, Mberenga, 5120, Midlands

Contact Person: Nomsa Pundla,

Telephone/Fax: 34981

2.2 Type of Business

The Tsekesedi Community Telecentre is both a business situated in the communications and information industry and a local economic and social development initiative being supported by the Zinganda Farmers Union.

2.3 Ownership

The Telecentre will be owned by the Mberenga Community Development Forum and registered as a Section 21 company (non-profit) called the Tsekesedi Community Telecentre. The company directors and management committee have been drawn from the local community, and include two retired ZPTC engineers.

The Mberenga Community Development Forum has been responsible for a number of successful local development projects, including the recent establishment of a community garden and the Aids Awareness Education Project (AAEP) which is being supported by the HealthUP NGO.

The operations of the Telecentre will be guided by the Tsekesedi Telecentre Management Committee, which comprises 6 senior members of the Mberengfa community.

2.4 Aims and Objectives

To address the need in the community of Mberenga for a range of Telecentre services by the end of June 1998.

The main services envisaged for the Telecentre are:

- Voice telephone services
- Local, long-distance and international calls
- Voice mailbox service
- Receive calls
- Fax service: type, send and receive faxes
- Document/business services: photocopying, word processing, document scanning, data entry, promotional material production (business cards, brochures, etc.), bookkeeping, form filling (Affidavits, Power of Attorney, Wills, etc.), travel and accommodation reservations.
- Delivery of urgent messages
- Announcement of messages or incoming calls
- Library and community information services and informal education
- Teaching basic skills on information retrieval using the Internet
- Training courses for special skills, the disabled, user profiles and professional groups
- Latest local, national and world news
- Market prices
- Jobs opportunities
- Trade opportunities
- Classified advertisements
- E-mail accounts
- Web browsing/FTP and USENET News access
- Internet application training courses for individuals and groups
- Basic word processing and office software
- Internet access/use and computer networking
- Web site development
- Distance education courses accessed through the Internet, radio and television
- Basic literacy and numeracy training (computer assisted)
- Secretarial courses
- Teacher training courses
- Tax returns
- License payments
- Claims processing, etc.
- Other on-line administrative information
- Internet-based video conferencing facilities
- On-line banking facilities
- On-line purchasing and ordering of supplies
- Reproduction facilities for newsletters, school materials, manuals, training, documentation, etc.
- Community media audio-visual production facilities
- Video productions of weddings and other such events.
- Editorial copy and photographs of local events for local (or national) media
- Web site development and hosting services (hosted via local ISP)
- Space and equipment rental for meetings/training/entertainment special events

3. Marketing Plan

3.1 Market evaluation and general environment

The number of people within 30 minutes' walking distance of the Telecentre is estimated to be 20 000 - about 2 000 families/dwellings. The community includes a large number of teachers and other civil servants. There are two villages (Unis and Roften) about 5 km away and the area within an hour's walk has a total population of 50 000 people.

The site is in a central location, close to the main road and the main group of shops in the village. The two secondary schools are about 1 km away and the clinic is about 500 metres away.

3.1.1 Telephones

There are half a dozen private telephones in the village, which use the Farmtel system with operator-connected calling (manual) which is unreliable. The nearest public telephone is 12 km away in Lamani, which costs \$25 by taxi to get to. In Lamani there is a private phone shop with five lines.

3.1.2 Electricity

Electricity supply is available and is installed in about 3 000 homes. The supply is reliable but the voltage can be low at times.

3.1.3 Post Offices

The post office is in Lamani.

3.1.4 Banks

The nearest bank is in Fidara, 19 km away.

3.1.5 Schools

There are two primary schools nearby and a secondary school 3 km away. A private primary school is run across the road from the proposed Telecentre site.

3.1.6 Clinics/hospitals

There is a new health clinic open five days a week in the District Development Fund compound and another nearby. It has a radio system and one phone line.

3.1.7 Churches/seminaries

There is one large Catholic church in the village and two other smaller churches - about four church employees.

3.1.7 Industry and commercial activity

There are three general dealership shops in the village, one large informal mechanic, a butcher/bakery and about 50 informal street stalls. Most people go to the Lamani supermarket for larger quantities of goods or when they need something special. Photocopy services are only available in Fidara.

3.1.8 Development projects

A conservation and eco-tourism training project has been established with support from the Eco Trust (ECT) and Minefields. The community has also

set up an irrigation scheme (with assistance from Mukla Trust) and there are plans for dried fruit production. Currently a sewing project is in progress, mainly for school uniforms, supported by the SBDB.

3.1.9 Tourist attractions

There are no real tourist attractions in the area, although Mberenga is on the road to the Grange Wilderness area which gets a fair number of visitors. The Telecentre site is 400 metres from the main road, and a sign to direct passers-by to the Telecentre will be erected on the road.

3.2 Expected market share and competitor analysis

There are no Telecentres in the surrounding area. It is expected that the telephone and copying services used in Lamani will be replaced by the local services provided at the Telecentre.

A general dealer in Mberenga may install a public phone booth when the telephone network is upgraded, but this is only expected to have a small impact on the demand for services at the Telecentre. Therefore virtually 100% market share is expected for almost all of the services provided by the Telecentre in the first year.

The primary school is also used for meetings and occasional training courses by NGOs. Outreach to the NGOs will be needed to inform them of the new facility at the Telecentre.

3.3 Promotional strategies

3.3.1 Informing government departments

The local branch offices of the following government departments will be contacted, informing them of the availability of the Telecentre's services for their outreach, information dissemination, meeting space, training and other requirements. One-day promotional events for each department will be arranged at the Telecentre: Departments of Agriculture, Labour, Environment, Education, Health, Trade & Industry, etc.

3.3.2 Informing other agencies

The following other nearby institutions will also be informed and promotional events arranged:

- Traditional Authority
- Political party constituency offices
- Chamber of Commerce
- Banks, insurance companies and pension payers
- Chain stores
- Computer retailers
- Newspapers, radio stations, magazines and other local media.
- Travel agents and tourism promotion offices.

3.3.3 Launch promotion

A special one-day event and celebration will be held to help promote the Telecentre. T-shirts will be distributed, advertisements will be placed in the

local media, pamphlets will be handed out and posters and flyers will be put up and handed out at strategic locations.

3.3.4 On-going promotion

T-shirts, baseball caps and pamphlets advertising the Telecentre will be produced. Services will be priced affordably and a number will be made free to attract customers to the fee-paying services (external bulletin board, government service information online, free promotion days, etc.).

4. Financial Plan

4.1 Own contribution

The community will provide the on-going management and premises for the Telecentre as well as labour for some of the physical upgrading, such as painting.

4.2 Source and application of funds

Start-up costs: Capital equipment and support for premises upgrading will be provided by the ZFU/SCC.

Income: Sale of services, subsidies from government and advertising. The services are described above. Services can be broken down into three major types: hourly rental, unit sales and service minutes.

Hourly rentals will be applied to meeting space, TV, overhead projector, cameras and other equipment, with a peak and off-peak tariff.

Unit sales will apply to products - fax pages, photocopy pages, stationary and other physical goods as well as transactions such as on-screen PC-based adverts, posting notices on the notice board on behalf of a government department or other agency, and financial transactions.

Service minutes will apply to telephone calls, Internet access, video conferencing and also to 'personal assistance time' (PAT) - where the customer requires the time of an operator to perform one of the services. For example, when customers cannot fax or photocopy items themselves, or search the web, the charge includes unit sales as well as service minutes.

The PAT will be divided into normal and over-time periods and rates could also vary for individual and group assistance. A descriptor will also be used to track the different services through the accounting and planning systems - typing services, photocopying, web searching, etc.

Application of income received: After covering costs of operations, funds will be reserved for replacement of depreciated equipment, expansion of services (more PCs, etc.) and contingencies.

4.3 Operating budget and break-even turnover

See attached budget. As can be seen, the first year's deficit is about US\$15 000, on a total income of about US\$34 000, assuming full coverage of start-up costs. Since the ZFU will be providing initial support for equipment, it is anticipated that there will be a surplus in the first year.

5. Operating Plan

5.1 Managerial expertise

The two Telecentre managers identified by the community will need to receive two training sessions from the ZFU/SCC project.

Debbie Malosi has a School Leaving Certificate.

Nebo Dante has a School Leaving Certificate and a secretarial qualification.

Two members of the management committee are entrepreneurs with their own businesses and substantial experience in business management.

5.2 Staff planning

Apart from the two Telecentre managers who have been identified, the community will employ a security guard and a part-time cleaner. After six months an additional assistant will be hired if the demand for services justifies it.

5.3 Staff training

Further training of the Telecentre staff is planned with support from the ZFU. In particular this will include training in: customer service orientation, financial management, equipment and applications operation and support, and how to train others effectively.

5.4 Administration and record-keeping system

Telecentre activities will generate a number of records that will be monitored to determine further strategy in the provision of services, pricing of services, etc. This information will be communicated to the ZFU on a monthly basis.

Transaction units and prices will be printed on the bill and recorded in the system and monthly copies made off-site.

Fax, photocopier and computer printing activity units will be in pages, the remainder will be hours or minutes with a varying rate for peak and off-peak hours.

Externally supported services such as the provision of government information in the form of print-outs on the bulletin board (such as farm produce prices or land redistribution schemes) should be recorded like other transactions, billed to a pre-paid account.

The Telecentre accounts will be submitted to an independent auditor at the end of each financial year.

5.5 Operating hours

The Telecentre should open for a minimum of eight hours a day for seven days a week. According to demand, the management will try to open the Telecentre from 7 am until 10 pm and may go to 24 hours a day if there is enough demand.

5.6 Communication and networking

There will be regular visits to and communication with other Telecentres to observe their operations and to learn from their experiences. Exchange

programmes with staff may be developed as well as links with other development projects.

5.7 Student access

Bona-fide students will be given a special pass, which will allow them access to the three text-based terminals for typing and Internet access at a very low monthly fee. The other equipment will also be made available to students for periods when no paying users need it.

6. Growth Path

The Telecentre site identified by the community is a 6 X 8 metre room previously used as a storage space for the adjoining general dealer. See attached floor plan. The premises for the Telecentre will require:

- painting
- wiring for electric sockets and neon lights
- the installation of an insulated ceiling
- shelving and benches
- burglar bars
- Ramp for wheelchair access
- Toilet modification for the disabled.

See the attached quotes for these modifications, which will be provided by local businesses.

6.1 Priorities

Telephones, fax, computer access and photocopying services will be the first priority of the Telecentre.

6.2 Milestones

After 12 months of operation it is expected that additional phone lines and PCs will be required. In addition, the Telecentre should be able to assume full post office facilities.

In the second year a second smaller Telecentre will be established at the secondary school on the other side of the community.

6.3 Prospects.

If the Telecentre develops according to plan, it should also be able to establish full Internet connection via a local ISP (Internet Service Provider) which is expected to be established in Fedara.

When the new road to Lamani is built next year, business at the Telecentre should expand substantially.

6.4 Diversification

Once the road to Lamani is built the community would like to add a new wing to the Telecentre and establish additional services there, especially for the youth and women.

6.5 Plan for the disabled

As mentioned above, the entrance to the Telecentre and the toilet will be modified to accommodate people wheelchairs and those with other physical

disabilities. One of the telephones will also be housed in a bench designed for easy access by the disabled. Likewise, one of the PCs will be set up in a similar housing and the text-to-speech facility and screen font enlargement system will be installed on another PC to provide for the sight impaired.

Model Budget for a Full Service Telecentre

A model budget for a full service Telecentre
(prices in US dollars)

Item	Qty	Unit cost	Year 1	Notes
1 Office equipment				
Physical upgrading & maintenance of building		2 000	2 000	Security, electricity wiring, paint, fixtures
Desks, chairs	10	80	800	
Cabinets & shelving	5	80	400	Include whiteboard/projector screen
Safe	1	250	250	
Window blinds	1	150	150	
Cleaning equipment	1	60	60	
Miscellaneous	1	120	120	Carpeting, cups, cutlery, urn, heaters etc.
Contingency	1	1500	1500	Air conditioner, electricity generator
2 Telecentre equipment				
Till & accounting system	1	1250	1 250	
Telephone handsets	6	15	90	
Long-range cordless phone (2 400MHz)	1	150	150	
Photocopier/reprographic equipment	1	3 000	3 000	
Integrated scanner/printer/fax/copier	1	750	750	
Multimedia Pentium PC with 32 MB RAM		950	4 750	
Text-based terminal	3	125	375	
Server/dial-up router	5	900	4 500	
28.8 kb/s dial-up modems	2	150	300	
CD-ROM products	10	50	500	
16 port 100BaseT LAN hub	1	120	120	
LAN cable (10-m lengths)	8	8	64	
Ethernet card	5	25	125	

Digital still camera	1	600	600
Digital video camera	1	1 000	1 000
CD-Writer	1	250	250
Colour printer	1	300	300
Client application software	5	200	1 000
Leased line equipment	1	500	500
Audio & visual PC aids for the sight impaired and the blind	1	300	300
Large TV (29"), DSTV, antenna, etc.	1	350	350
WorldSpace/FM/AM/SW radio	1	200	200
Power-stabilizer/UPS equipment/inverter/generator	1	800	800
Installation	1	1 250	1 250

3 Total Capital Costs			26 304
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4 Fixed Recurrent Costs

Premises, annual rental (/month)	12	50	600	
Telephone rental	6	120.00	720	12 months @ \$10/month = \$120/year
Staff - managers (person months)	24	250	6 000	
Security	12	50	600	
On-site training	1	500	500	Initial on-site technical training in PC & telephone system
Dial-up Internet Access (months)	12	40	480	Monthly subscription
Telephone calls (minutes)	36 000	0.01	360	90 min/day on each line for 300 days/year @ av. of 1c/min
PC equipment maintenance/support	1	700	700	Annual contract
Photocopier/reprographic equipment maintenance	12	50	600	
Staff development & induction	12	50	600	
Marketing & events	1	300	300	
Insurance (monthly)	12	30	360	
Bank charges	12	10	120	
Capital depreciation			5 261	20%/year of total capital costs

5 Variable Recurrent Costs

Electricity	12	50	600	4 kW @ 8 h/day
Paper (reams)	100	6	600	
Stationary for Telecentre administration	12	25	300	
Stationary and related products (for sale)	2 000	1	2 000	Pens, exercise books, packaging, av. cost
Diskettes (boxes of 10)	50	8	400	
Toner for Fax/printer/copier	10	80	800	
Writeable CD disks	50	2	100	
Transport	24	5	120	Trips to the bank

6 Total Recurrent Costs **22 121**

7 Total First Year Costs **48 425**

8 Annual Income

Telephone services (mins of voice)	36 000	0.02	540	See above, 50% mark-up
Computer usage for commercial customers (mins)	135 000	0.05	6 750	4 PCs @ 90 mins each/day for 300 days
Local e-mail accounts	150	25	3 750	\$20/year
E-mail traffic charges (kb)	10 000	0.02	200	
Student drop-in access subsidy (students)	200	10	2 000	Dept of Education subsidy
Training courses (av. number of person-courses)	250	30	7 500	
Reproduction services (reams)	100	10.50	1 050	75% mark-up on paper costs
Business materials design & production	250	10	2 500	
Financial transactions & sales/delivery expediting	1000	2	2 000	
Information distribution services	1 000	1.00	1 000	Govt support for posting of notices
Sales of stationary and related products	2 000	2	4 000	50% mark-up on cost
Space rental	48	5	240	4 days/month
Equipment rental	96	5	480	
Personal Assistance Time (mins)	18 000	0.10	1 800	60 mins a day

Total Income	33 810
First Year Profit/Deficit	-14615

5.5 SUMMARY OF EQUIPMENT IN A FULL SERVICE TELECENTRE

- Three PCs with the following:
 - 733 MHz Pentium CPU
 - 64 MB RAM
 - 10 GB Hard drive
 - 1.44 Stiffy drive
 - 52 x CD-ROM
 - 16-bit Sound card
 - 2 MB Graphics card
 - 10 Base-T Ethernet card
 - Windows keyboard
 - 40 - 60 Watt Speakers
 - Mouse and mouse pad
 - 15" SVGA monitor
 - Microphone
 - Headphones
- One HP OfficeJet Pro 1150C printer
- One HP7200 Internal Re-writeable CD-writer.
- One Thermal Paper Group 3 fax machine.
- One 10BaseT hub with 8 ports CAT-5 cabling (at least sufficient length to link the 3 PCs to the hub).
- One 33.6 USR Sportster modem.
- One Sony Mavica FD91 digital camera.
- Box of 10 writeable CDs
- 10 reams paper
- Ink refills for scanner/printer
- One TV/VCR
- One AM/FM Radio/Tape/CD Player.
- One 8-cell variable size battery charger. Additional two sets of batteries for digital camera.
- One laminator + plastic supplies
- Two boxes of transparent iron-on sheets for the printer.

Each PC may require up to 3 power sockets (one for monitor, one for CPU and one for soundcard speakers)

Each other piece of equipment except the camera will require its own socket.

PC suppliers should, if possible, load Windows and provide a selection of CDs - Encarta, World Atlas, etc.

Commercial software per Telecentre:

- One site license (for 3 PCs) or donations of MS-Office (version without Access)
- Two modules Pastel Accounting Soho and Soho Point of Sale
- One copy each of suggested software: Reading Blaster, Math Blaster, Magix Music Maker, Jump-Start 4th grade

- + 6 Selected CDs - e.g. World Cup, Orchestra, Grolier Encyclopaedia, etc.
- Two Copies Typing Tutor.
- One Copy Dragon Naturally Speaking.
- One Copy Netscape Communicator 4.5
- One Copy Wingate (modem Sharing Software).

Additional Equipment for Larger Telecentres:

- RISO Copier
- Cell phone
- Long-range cordless phone
- Replace one PC's CD-ROM with a CD-writer.
- Additional PCs or NCs.

List of miscellaneous equipment and supplies likely to be needed by a Telecentre.

Furniture:

- Desks
- Chairs
- Tables
- Filing cabinet
- Safe
- Bench
- Dustbin
- Gas ring
- Toaster

Cleaning Equipment:

- Broom
- Bucket
- Soap
- Polish
- Bench

Miscellaneous:

- Toilet paper
- Tea
- Sugar
- Milk
- Post Office Box
- Petty Cash Box

Stationery:

- Receipt books
- Rubber stamps
- Stapler
- Tippex
- 2-hole punch

- Envelopes
- Notepads
- Pens
- Pencils
- Rubber
- Calculator
- Press-stick
- Folders
- Hanging folders

5.6 SOURCES FOR SUPPLIERS

NCs/Set-top box.

Oregan - nbourne@oregan.net +44-836-766-843 <http://www.oregan.net>

Network Computer model 100. IBM <http://www.ibm.com/nc> US\$560.00 per NC

Corel Computers. Netwinder - <http://www.corel.com>

Portable/movable air conditioners

Panasonic Portable, albamag@iafrica.com

Reprographic equipment <http://www.RISO.com>

Internet access management

Cyber-Time US\$430.00 <http://www.cybertimesoftware.com>

I-Card – US\$330/PC <http://www.icard.net>

5.7 PHONE CALLS OVER THE INTERNET

It possible to transmit live audio data in real time over the public Internet often called 'data streaming'. A standard dialup modem connection from a PC equipped with a sound card can deliver audio as clear as AM or close to FM radio, depending on the congestion to the remote site delivering the data.

Thousands of Internet 'Radio stations' have sprung up as a result of this, although for most users in Africa without a high speed Internet link, the quality and reliability can be often be unacceptable for sites not closely connected to the global backbone. Voice broadcasts and two-way conversations require less data transmission capacity than music, so the quality is usually acceptable. This has led to a proliferation of 'Internet Phone' or 'Voice over IP' (VOIP) services, which provide a variety of services more usually associated with the normal public telephone network.

The simplest of these are the free PC-to-PC 'telephony' services, which provide a freely downloadable client programme that usually looks like a telephone, and a directory service to locate other parties (who also have to be online and running the client software to receive a call). In fact this can be done without any third party service provider by using Microsoft's NetMeeting, another H.323 compatible product, or any other similar. As long as one of the two parties know the other's IP address, the software can be instructed to connect to the remote party or parties, and a broadcast or multi-way dialogue can take place.

Headphones and a separate microphone are often important to limit interference to and from the other occupants of the telecentre.

The cost of this method of communication is just the cost for the time spent connected to the local Internet service and independent of the distance the two parties are from each other. As a result many people with low cost Internet access are switching to this means of communication whenever long distance telephone calls are more expensive.

The reasons for the lower cost are complex but in essence boil down to the following:

The public switched telephone network is inherently not as efficient as a packet-switched network in maximizing available bandwidth -each voice circuit is fully occupied by the two parties, even if they are not saying anything to each other,

Traditional switched telecoms cannot benefit from the same economies of scale that are provided by the shared and decentralized administration of the global Internet infrastructure

The history of limited competition in the telecom sector, traditional telephony is not as competitively priced as Internet bandwidth.

These factors are slowly leading to the transformation of the public switched telecom network (PSTN) operators into a broadband carrier for IP packets, as data now exceeds voice traffic on the global

telecom network, and as telecom operators slowly move their architecture over to a packet switched network, -PSTN operators are switching from running data over their voice networks to running voice over their data networks.

Since most people in Africa only have access to a phone, let alone a PC with low cost internet connection, this would seem to be a long way off. But it is now also possible to use VOIP when one or even both parties do not have access to a PC with an Internet connection. Dozens of companies have set up gateways from the Internet to the PSTN so that a PC connected to the Internet can 'Hop Off' and make a call to anyone with a telephone line. With a network of gateways in place, the calls can be delivered over the Internet to the nearest gateway before making the hop-off to the high-cost public telecom network, thus minimizing the cost of the service. Calls to countries with a highly competitive telecom sector may be provided free or at trivial cost, often as a marketing ploy to encourage people to use their paid services to other countries - ironically, usually to those without a deregulated telecom sector.

These systems also allow people with no PC to call from a normal public or private phone using a calling card to 'hop-on' to the Internet to reach a PC, or to then hop-off to the public network to reach a telephone subscriber at some remote location. Aside from these real time voice services, many of the providers often also sell a mix of Fax-over-IP services and Voice-mail over IP which operate in the same way to cut costs. Call back companies are also using the Internet to allow users in countries without local services to request the call using the Internet and have it returned to a specified telephone number.

VOIP isn't simply about cutting the expense of those irregular calls and faxes to one's family, friends or colleagues overseas. More importantly it is resulting in completely new patterns of communication - long distance calls are more frequent, are of longer duration, and take place to a much wider network of people who would not otherwise be contacted. Because of these benefits, this usually means that the Internet caller is probably spending much more time on the 'phone' and unlikely be saving money. They are more likely to be spending similar amounts, if not more, but on the local ISPs and the local telecom infrastructure.

Egypt Telecom is the only operator in Africa to have begun providing VOIP service to the public; it is technically illegal in most other African countries as they have not yet adopted the moves toward open markets that have taken place in North America and Europe. Some telecom operators in Africa have attempted to block the more popular Internet phone sites, but this is virtually impossible to do effectively and telecenters and cyber cafes in urban centres are already seeing increased use of these systems on their PCs. Ultimately VOIP is the way all calls will work, so it is hoped that African telecom operators will be early adopters of the system, to cut their own costs and attract more customers, especially as the competitive environment spreads throughout the continent.

Some notable VOIP & FOIP services:

Net2phone www.net2phone.com
Hottelephone www.hottelephone.com
Iconnecthere www.icconnecthere.com
Dialpad www.dialpad.com
Efax www.efax.com
The Phone Company TPC www.tpc.int

Glossary of terms

286, 386, 486, 586	Series of microprocessors originally produced by the American company Intel. The 586 is also called the Pentium.
Analogue signal	The transmission of data by means of variations in an impulse - usually an electric signal.
ASCII	American Standard Code for Information Interchange, a standard method of representing an alphanumeric character with a computer codes.
Bandwidth	The size or capacity of a communications channel, usually measured in bits per second (bps).
Binary	A type of digital coding system, usually using combinations of two digits, 0s and 1s, to represent commands and characters in a computer. Most digital computers are binary, using a sequence of eight 0s and 1s to represent each ASCII character (8 bits make up a byte). A binary signal is usually expressed by the presence or absence of an electrical current or magnetic field. Morse code is another example of a binary coding system.
Bit	A binary digit, the smallest amount of information a computer can hold. A single bit usually signifies a single value of 0 or 1. Bits can be grouped to form larger values. See byte.
Bug	An error in a program. A recent prominent bug is the so-called Y2K bug , which relates to many computer systems' inability to differentiate between the year 1900 and 2000. It has the potential to create very serious disruptions to a number of businesses and organisations that are dependent on computers.
Byte	A sequence of 8 contiguous bits used to code a unit of computer information. One Byte store the equivalent of one character. Therefore a 650 Megabyte CD can store 650 million characters of text. One Gigabyte = billion bytes.
Cellular phone	A mobile telephone that uses a number of interlinked short-range radio stations to cover the area it serves, the signal being automatically switched from one station to another as the user travels between two points.
Clock speed	A measurement, in millions of cycles per second (megahertz or MHz), that indicates how fast a computer can process information. Clock speed is a function of the ease with which electricity passes through the processor. Current commercial processors operate up till 1 GHz range.
Communications system	Any combination of technology that allows the

Computer virus	transmission of audio, images, video and/or text. A self-replicating piece of software that can infect a computer system and sometimes destroy the data or cause other system faults.
Data transfer	The transmission of images, audio, video, text and even voice telephony between two points.
Digital	Using numbers. A type of computer that accepts and processes data that has been converted into binary numbers. The opposite of analogue.
Electronic commerce	Selling and buying of goods and services on the internet. The most commonly traded items currently are books, CDs, clothes, company stock and computer products.
Electronic mail, e-mail	A type of software that enables the user to easily and cheaply send and receive messages via computer.
Encryption	Methods to code information to make it more secure.
Fibre optic	A technology using glass fibre that replaces copper wires for both telephone and computer networks. Uses very rapid light signals (binary) for the transmission of data.
Gigabyte	One billion bytes.
Hardware	The physical parts of a computer.
IBM	International Business Machines, the largest American computer manufacturer.
Information	Data that have been processed or manipulated. Gross pay (calculated by multiplying hours worked by pay rate) is an example of information.
Information system	A system that consists of a database, application programs, manual and machine procedures, and the computer systems that do the processing.
Information technology	Technology that deals with the storage, processing and dissemination of information, especially using computers.
Internet	A large computer network of smaller computer networks. Osborn: The Internet is the name for a group of world-wide information resources. These resources are so vast as to be well beyond the comprehension of a single human being. Not only is there no-one who understands the entire Internet, there is no-one who even understands most of the Internet. The first experimental network using Internet-like technology involved four computers and was build in 1969, this was 13 years after the invention of the first IBM computer. The Internet is the first global library and the first global forum. The Internet has no rules, no laws, no leaders, no police, no one in charge and no single organisation pays its costs.
Internet telephony	The use of the Internet for telephone services.

	Main advantage is the low cost since all calls are made via a local ISP regardless of where the call is going.
ISP	Internet Service Provider - a generic term for organisations providing Internet services such as web site hosting and dial-up access.
IT	Information Technology – technology that deals with the storage, processing and dissemination of information especially using computers.
ITU	International Telecommunication Union - the UN body responsible for the telecommunication sector.
Kilobyte	One thousand bytes.
Kbps	Kilobytes per second - a measure of how fast data can be sent or received.
Mainframe computer	A large, fast computer system capable of supporting several hundred input and output devices such as keyboards and monitor screens.
Microprocessor	An integrated circuit that “understands” and executes machine language programs, i.e. software. The x86 series of microprocessors form the central processing units of most IBM compatible PCs.
Minicomputer	A type of computer that is smaller, cheaper and easier to maintain and install than a mainframe computer but larger than a PC.
Modem	MO(dulator)DEM(ulator): a device that can convert digital computer signals into analog telephone signals (audible sounds that can be sent over telephone lines) and that reverses the procedures at the other end of the line.
Multimedia	A means of displaying text, audio and graphics applications.
Network	A set of interconnected computers, peripherals and terminals which aims to enable each computer to be accessed from the other computers and terminals.
PBX	Public Exchange (telephone exchange system)
PC	Personal Computer – a type of computer that is well suited for use in a home, school or office.
Pentium,	Intel’s latest microprocessor type. Their working speeds (=clock speed) are indicated by a number.
Protocols	A set of rules governing the flow of information in a communications system.
PSDN	Packet Switched Data Network
PTO	Public Telecom Operator
Real-time voice-translation software	A software application that can immediately translate a voice message from one language to another.
Satellite imagery	Pictures taken from a satellite

Smart cards	Credit card-sized cards with a built-in microprocessor that are able to store data and execute simple commands when connected to a computer.
Software	Sets of instructions that computers use to manipulate and process data. Most common user applications are: e-mail, word processing, database and spreadsheet software.
TCP/IP	Transmission Control Protocol/Internet Protocol – an open set of communications protocols on which the Internet is based.
Tele-conferencing	Creating a meeting by transmitting voice and visual images back and forth between physically remote individuals.
The Web, WWW	The World Wide Web
UNIX	A multi-tasking, multi-user computer operating system.
VSAT	Very Small Aperture Terminal. A type ground station for satellite communication.
Virtual ...	Artificial, often a simulation of, reality represented by a computer application.
Voice-over IP operators	Telephone operators who use the Internet to transmit calls.
VSAT hub	A switching point for VSAT communication.