National Capital FreeNet
c/o Carleton University
402 Dunton Tower,
1125 Colonel By Drive
Ottawa, Ontario K1S 5B6

# The National Capital FreeNet

# Opportunities, Challenges and a Sustainable Future

*The National Capital FreeNet's best opportunity to remain sustainable is to continue to help the people of our community to access technology which otherwise might be unavailable to them, and to continue to provide a service that remains relevant and useful*

Christopher L. Cope
NCF Executive Director
July 16, 2000

## Table Of Contents

*Opportunities, Challenges and a*
*Sustainable Future*

*The National Capital FreeNet's best*
*opportunity to remain sustainable is to*
*continue to help the people of our*
*community to access technology which*
*otherwise might be unavailable to them,*
*and to continue to provide a service that*
*remains relevant and useful*

## 1. Executive Summary

The principal conclusion of this report is that so long as the National Capital FreeNet relies on donations from its members to support the cost of day-to-day operations, it must set membership as its highest priority. The very nature of NCF is often to provide an introduction to the Internet and the natural attendant outflow of members must be offset by an equal or greater inflow. Methods of attracting new members is therefore of paramount importance.

The report highlights a significant change in demographics of the typical user and notes that whereas once NCF was the domain of the more technical affluent user, the trend is toward a more homogenous mix with a correlation to lower income families with no children emerging.

The arrival of World Wide Web technology has changed usage of the NCF system dramatically. Many early members have migrated to a PPP or graphical method of access and virtually all new members within the last two years have never experienced the text-based system.

A pattern of "user" not "member" is identified, yet there is strong continuing support by members who choose to sustain NCF through their donations rather than direct participation in the business of the organization.

A niche or target market is defined as " those who would otherwise be left out".  This market, estimated to be approximately 250,000 people

Each of NCF's current projects is seen to significantly enhance NCF's ability to attract new members. The Thin Client project represents delivery of a new service unavailable from any other service. WebMail provides a service already much in demand through community partners such as schools and libraries while SmartCapital positions NCF among many other community partners to deliver a suite of enabling technologies to Ottawa residents, All three projects provide opportunities for NCF to expand services, replace ageing hardware and attract new members.

## *Opportunities, Challenges and a Sustainable Future*

The following recommendations are made, prefaced with the following belief:

*"NCF's fundamental purpose is to help those people in our community who might otherwise be left out, to access current Information Technology."*

1.  Continue to provide reliable, low cost basic dial-up Internet service.

2.  Be up-to-date; be Web-centric.

3.  Phase out FreePort.

4.  Make membership easy.

5.  Focus on People Management and Community, not technology

6.  Re-establish a training and outreach team and develop a traveling road show.

7.  Organize help for new members including the development of a one-on-one mentoring system.

8.  Rekindle a sense of belonging by developing tools to facilitate networking among NCF members.

9.  Expand support for not-for-profits and other information providers.

10. Develop a comprehensive communications plan and embark on a focused publicity campaign.

11. Continue to pursue existing community projects and future initiatives which adhere to the following principals:

    i.   Support NCF's fundamental purpose "to help those people in our community who might otherwise be left out" access current Information Technology

    ii.  Focus on developing NCF membership

    iii. Provide a lasting legacy to the NCF in the form of infrastructure enhancements, added services, training materials etc.

12. Capitalize on community strengths and take advantage of existing reputation and good standing.

13. Focus on the people who need us most: "those people in our community who might otherwise be left out".

## 2.  Preamble

This is a special report by the Executive Director of the National Capital FreeNet, in his continuing dialogue with the NCF Board of Directors concerning planning issues. The NCF Board of Directors, like the boards of many community networks, is currently faced with significant challenge as the communications world changes and evolves. In order to prudently prepare for this change, the Board is now examining various strategies that provide a sustainable future for the Organization.

Through a variety of circumstances, the current directors of the National Capital FreeNet are faced with an additional and unusual challenge. The new Board finds itself in a position where considerable corporate memory has been lost and only two members of the present slate are veterans with two or more years in office. Two directors are brand new, and two have just a single year of Board service. At time of writing, three Board positions remain vacant.

This document is presented with a view to providing the Board, particularly its newest members with relevant background information, analysis of facts related to usage, demographics and industry trends, together with information concerning current projects and the opportunities that they represent in correctly positioning the Organization within the community.

It is hoped that the recommendations contained in this report will provide a foundation for the 2000/2001 planning process, by providing the Board with a framework for its visioning process, and that these ideas will facilitate strategy development resulting in an operations plan for the coming year.

## 3.  Background

The National Capital FreeNet / Libertel de la Capitale nationale is Ottawa's oldest Internet provider, having marked its 7th birthday in February 2000. Soon after incorporating in 1992, the NCF began to grow into an energetic and fast-growing community network, serving citizens throughout the National Capital region. Some 72,500 members have registered since inception and of these about 10,000 remain active, with about 7,000 logging in at least once per week.

The NCF began with a purely text-based interface, using FreePort software at a time when Commercial ISPs were non-existent and both individuals and other not-for-profits rushed to use this exciting new tool. FreeNet was the only game in town and the NCF soon blossomed into a community of its own, with vibrant online discussions, strong volunteer participation and rapid uptake, primarily through word-of-mouth. Hundreds of organizations hurried to "publish" their information on the "Information Highway" using NCF's text-based menu system. The value of email, networking and research via the Internet became progressively more and more important as people adopted this exciting new means of communication.

The introduction of the World Wide Web technology changed everything.  Dozens of commercial services sprang up. Most offered graphics-enabled PPP or SLIP connections and many offered navigation aids and content not yet available through FreeNet. Information providers looked for ways to publish their information in web page format with full graphics

and elaborate formatting. In 1996, the NCF began to offer PPP connections with graphical user interface enabled on 10 lines. Off-site mail and newsreaders could be used and web browsing became possible using graphical browsers on these lines via a proxy. At about the same time, the NCF began hosting webpages, but it was not until 1998 that typical tools such as FTP were offered. By 1997, the proxy was eliminated, PPP connections were enabled on all lines and NCF members finally had access to the entire World Wide Web. The damage was done however and by this time, many people perceived the Internet as something quite different and apart from FreeNet, which many thought was only available in text.

Meanwhile, the Internet is becoming the preferred method of information delivery and communications for both citizens and industry. Manufacturers have quickly adopted the Internet for business-to-business commerce and more recently; retailers have begun to adopt this vehicle for selling directly to consumers. "Dot com" and "E-business" are becoming household words now and all levels of government have announced plans to use the Internet as their preferred method of service delivery.

There is worrisome, as this wholesale migration of essential services to the Internet stands to create an inequity often referred to as "The Digital Divide". People who haven't the means or the knowledge to use this new tool to access basic services may be left out.  The Transition Team for the new City of Ottawa estimates that this marginalized component of our community may be as high as 30% of the population in our community.

In this rapidly changing communications environment, many of the tools and services needed to accomplish our objectives have changed and certainly new services pop up almost daily, but the NCF goal of *"preparing people for full participation in a rapidly changing communications environment"* continues. FreeNet has always been about people helping people gain access to new technology, but an increasingly important role is emerging, one in which NCF helps people who might otherwise be left out.

Compared to the situation in1992 when FreeNet was first incorporated, "full participation" means much more now. The fundamental concept of helping people to access technology remains a constant.

## 4.   Demographics Of NCF Membership

The Demographics of FreeNet membership and the things that FreeNet members do online, is changing in lock step with the changes in communication and technology evident throughout the World. In order to sense the future needs of members, it is useful to examine who they are now, and attempt to understand what services they need and value most.

During the early years of NCF's history, membership was strongly skewed towards young, affluent males. Andrew Patrick, Alex Black, and Thomas Whalen characterized a typical NCF user as "Rich, Young, Male, Dissatisfied Computer Geeks?" in their paper presented to the Telecommunities Canada International Community Networking Conference in 1995. The full text of this paper can be obtained at http://www.ncf.ca/ncf/pda/docs/geeks.zip.

Many of these technically savvy users were graduates of the BBS experience and, as early adopters of the Internet were easily able to master the intricacies of connecting and using tools such as archie and gopher.
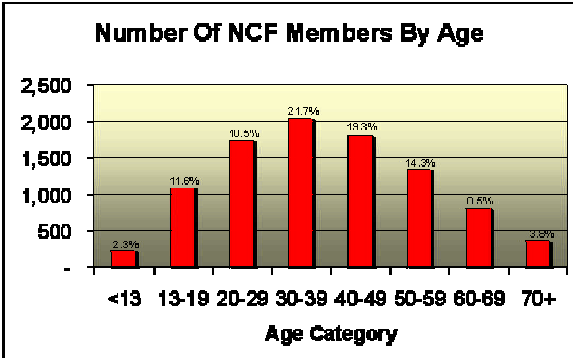
**Opportunities, Challenges and a Sustainable Future**

As the following tables illustrate, we find a much more homogenous mixture now, with both the youth skew and the male gender skew disappearing in favour of a mix more representative of the general population.

## Age Of NCF Members

| | | |
|---|---|---|
| Pre-teens | 213 | 2.3% |
| Teens | 1,083 | 11.5% |
| Twenty - twenty-nine | 1,738 | 18.5% |
| Thirty - thirty-nine | 2,034 | 21.7% |
| Forty - forty-nine | 1,866 | 19.9% |
| Fifty - fifty-nine | 1,340 | 14.3% |
| Sixty - sixty-nine | 797 | 8.5% |
| Seventy + | 309 | 3.3% |



## Number of NCF Members Sorted by Gender
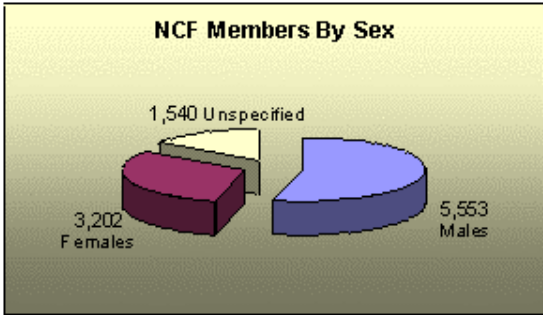


| | | |
|---|---|---|
| Males | 5,553 | 53.9% |
| Females | 3,202 | 31.1% |
| Unspecified | 1,540 | 15.0% |
| | 10,295 | 100% |

## Percentage of NCF Members Split Between Males And Females

| | | |
|---|---|---|
| Males | 5,553 | 63.4% |
| Females | 3,202 | 36.6% |
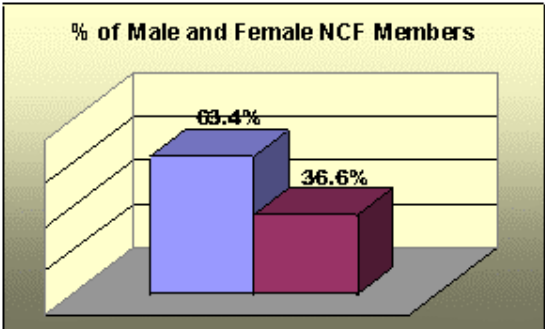
An additional and important trend revealed in these numbers, is the gradual aging of our membership. Currently, some 46% of our members are over 40 and the seniors component is a fast growing segment showing growth where other groups have declined in numbers.

What the preceding tables don't show is the gradual removal of the skew towards affluence and the increasing number of NCF members coming from underprivileged households. Jim Elder recently compared the postal codes of active NCF members to Statistics Canada census information and found that our highest concentration of members was found in neighbourhoods with lower family incomes.

Jim Elder's research also revealed that the number of NCF members in any given postal area can be correlated with the number of singles living there, and that a strong negative correlation exists in those areas containing many households with children.

## 5.  Members are Changing What And How They Do Things

### 5.1.    Migration To PPP

Midway through 1998 a clear trend was emerging as more and more members began using PPP services. The following graph was prepared at about that time. The strong uptake of PPP logins (bold red line) is mirrored by declines in usage of nearly all text-based services.

NCF - NUMBER OF USES PER WEEK
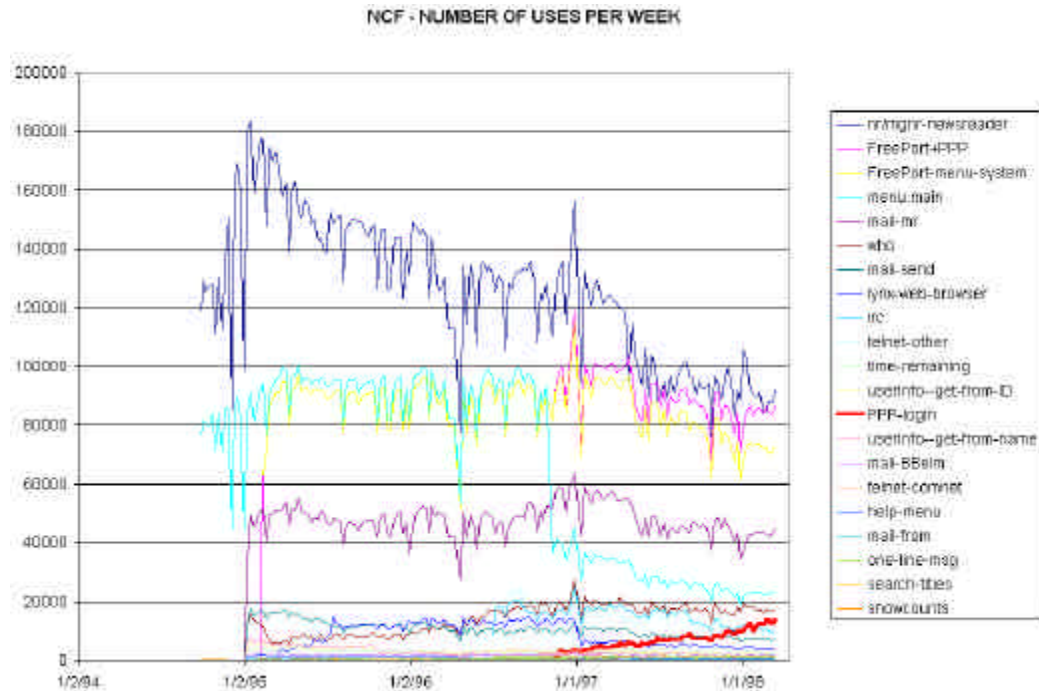
A more recent indication of the changing ways that FreeNet members use our system can be observed in the following charts which graph PPP vs. text usage over a thirteen month period ending in April of this year.

The chart on the right examines system usage on the basis of unique users who accessed the system in either PPP or text modes. The period studied begins with 3,605 users in March of 1999 and ends with 3,733 users in April 2000 and although the peaks and valleys on the graph are large, essentially, about the
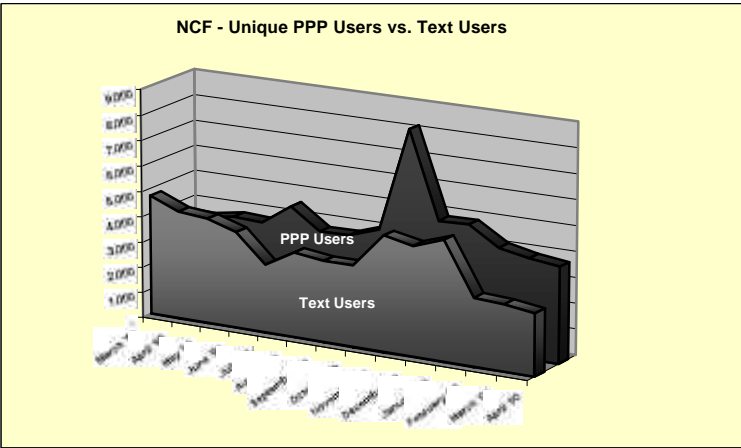


same number of people have been using the PPP system for about a year while the number of text users has declined steadily from 4,711 in March of 1999 to 2,417 in April. 1999.
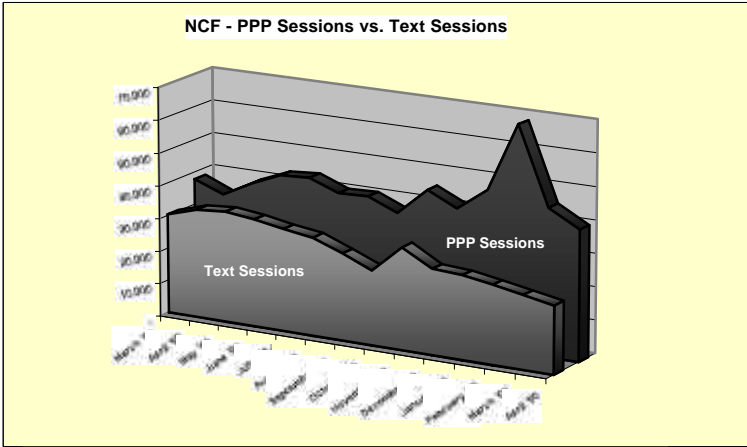


The chart on the left that analyzes the number of PPP vs. text sessions further illustrates this trend toward PPP. Despite a decline in overall membership, the number of PPP sessions has increased slightly from 37,769 a year ago to 39,623 now with peaks over 45,000.

## 5.2. Changes in Email Usage

Since the very beginning, email has been our most popular service and the service that all nearly all members consider important. Our email servers presently handle about 3,000 pieces of mail per hour or about 25 million per year. Email traffic on a typical day (July13, 2000) looks like this:
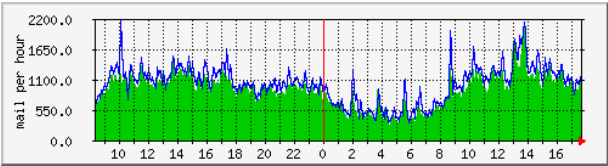
Even at 4:00 AM, NCF's servers were still handling about 1,200 messages (600 inbound [green] and about 600 outbound [blue]).

How members access their email is changing quickly. At one point, about 85% of the daily usage of the NCF system was purely for email, using our own text-based system mail readers. Now, that figure has dropped to 13 -15% while members migrate to the POP mail system in large numbers.

To further understand this trend, we examined how current NCF members have configured their email accounts, on the basis of the year in which their FreeNet account was created.

The chart at right illustrates the number of each type of arrangement displayed against the year that the account was created. "Fwd" represents members who have forwarded their email to another system. It is interesting to note that most text users joined in the early years, but since 1998, nearly all-new members have opted for the graphical system.

**NCF Mail System Usage By Number**
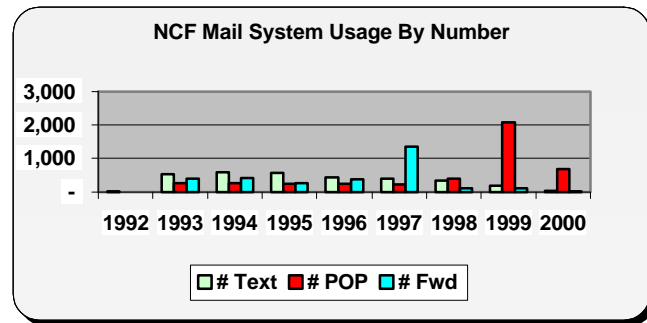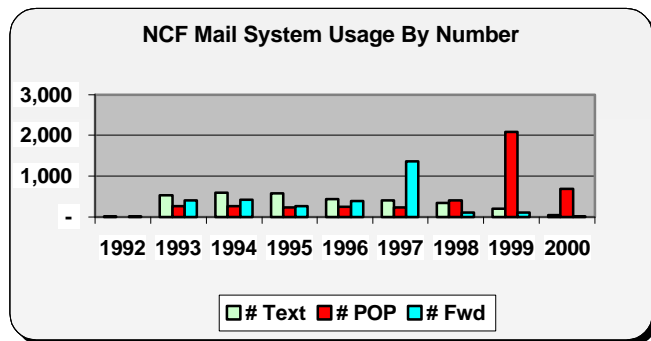
This chart examines the same data, but categorizes the various email arrangements on the basis of the percentage of members remaining active since joining in a given year. Less than 10% of those members remaining from 1992 are using the PPP system and text is still the method of choice for the majority of members who have joined right up until 1998 when the situation changed dramatically. By the year 2000, new text users are essentially a thing of the past.

**NCF Mail System Usage By Number**

In summary, we see that virtually all new members adopt the PPP system using POP mail. Members who have stayed with us for several years are likely to continue using the text system as long as we support it. This group numbers just over 3,000 users and their tenacious grip on the text interface suggests careful consideration as support plans are developed.

### 5.3. Features Liked Most

In February 2000, NCF conducted an online survey to learn more about the needs and wants of members. Some 324 people responded to the survey. The complete results of that survey are located at http://www.ncf.ca/ncf/survey/. The following table illustrating the ranking of things liked about NCF is taken from the survey synopsis:

1. Feature liked most: Low Cost Internet Access (49%)
2. Feature liked second most: Email (61%)
3. Feature liked third most: Sense of Community (16%)
4. Feature liked fourth most: Web Browsing (13%).

### 5.4. Wanted Improvements

This table illustrates the things that survey respondents ranked highest for improvements to NCF:
1. Most requested improvement: Faster modems (51%)
2. Second most requested improvement: More reliable service (29%).
3. Third most requested improvement: More community information online (13%)
4. Fourth most requested improvement: Easier to use (11%).

### 5.5. Why Do People Leave FreeNet

With a view to finding ways of retaining membership, we asked approximately 300 members who emailed the office with instructions to terminate their account why they were leaving. We were surprised to learn that frustration with modem speeds or technical difficulties were rarely included among the reasons for leaving. As the chart below reveals, the overwhelming single reason for leaving was stated as "no longer useful". Most of these respondents had been introduced to the Internet at NCF, but had graduated to a commercial provider. Alarmingly, most were unaware that NCF offered many of the services that they received from the ISP.



**Stated Reason For Leaving NCF**
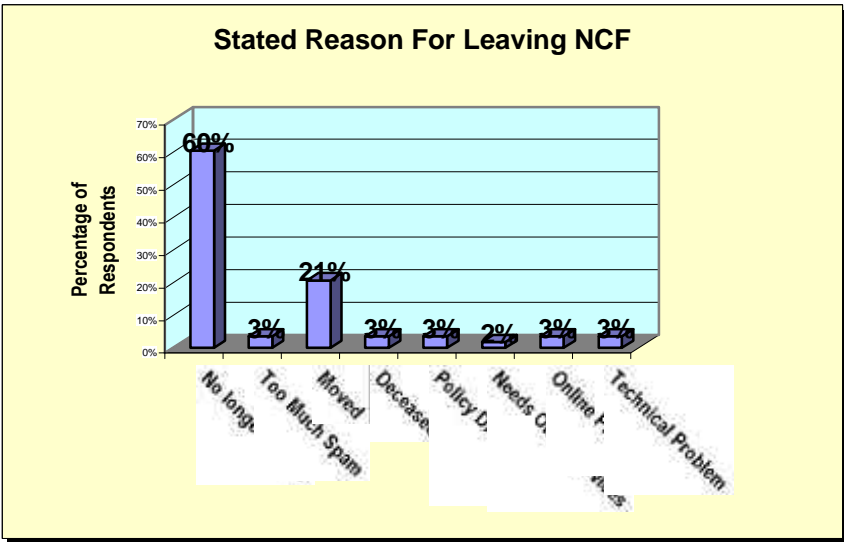
## 6.  Other Provider Options

It is important to understand that the NCF has always been something of an "incubator", and since the beginning, members have frequently lost interest, or moved on to commercial services as their needs and wants exceeded our capability, connection speed or capacity. Many people get their first taste of the Internet through our system. They are introduced to electronic communications such as email, SIGs newsgroups, chat etc. through FreeNet, but even when our membership was at its peak 30,000 we had registered some 50,000 and 20,000 had already moved on.

In the beginning, there was nowhere else to learn about this exciting new technology, but today that situation has changed dramatically. Many youngsters now get their first taste of computing and the Internet at school and most adults find that computers and the Information Highway, at least email, are part of their everyday routine on the job. Large ISPs like AOL, Sympatico etc. market their services aggressively, with disks and CDs arriving in mailboxes throughout the city almost daily; offering free hours, special deals on computers, ease of connection and more.

Now, as the Internet world learns to use and apply clickable advertising, many other free ISP services have sprung up, with companies like Excite (http://freelane.excite.com) freewwweb (http://www.freewwweb.com/), Funcow (http://www.funcow.com/) offering free dialup ISP services in Ottawa. These other free services rely on various advertising arrangements to sustain operations, unlike NCF's donation model.

The NCF is no longer the only game in town; we cannot expect the novelty alone of our service to bring in hordes of new users. The "cleanness" of our service, uncluttered by commercial messages, and the friendly help offered by volunteers will likely continue to represent significant and beneficial differences of membership in the NCF.

Despite the many options that now exist, some 40% of Ottawa's population is not yet connected and if the City's Transition Team's estimate is accurate, the bulk of these have neither the means to pay for commercial ISP services nor perhaps, the knowledge to take advantage of other free services. These differences represent important opportunities for NCF. FreeNet has long been a bastion for the modest computer-user and since day one, NCF has championed various mentoring and member-helping-member help schemes. No other service can duplicate this, nor would their financial model be able to compete with the power of volunteerism

## 7.  Community Considerations

The National Capital FreeNet Inc. is defined as a community owned and operated organization and is incorporated federally as a not-for-profit corporation. But just what does this mean? In the early years no other organization existed which provided citizens of Ottawa with access to the Internet and to use services such as email, browsing etc. Early members, with their newfound networking with others in Ottawa felt a strong sense of belonging and FreeNet itself developed into something of a community, comprised of an elite group of early adopters, unique in their use of cutting edge technology.

A direct result of this unique NCF community spirit was evident in the strong participation in ncf.* newsgroups, lively online discussion, and strong volunteer support. News of the service

spread quickly by word-of-mouth and the concept of mentoring blossomed, with most members not only telling their friends about NCF, but also helping them get connected and online.

As Jim Elder said in a letter to the NCF Board: "'Community Network' used to refer to a 'network island' serving a community (the public), similar to the way a 'campus network' served a university or a 'corporate network' served a business organization. The rapid development of Internet tools and the Internet has made such islands less relevant. People everywhere use web browsers to select from a vast array of services and content, local and remote, and use web sites to publish content, with little interference or need for assistance from anyone.

Internet access is not yet ubiquitous, but in the eight years or so since FreeNet began, usage has become commonplace in Ottawa and FreeNet members are no longer unique in their ability to connect. Nowadays, FreeNet members are more likely to think of themselves as 'users' rather than 'members' and tend to use the connectivity offered by FreeNet to participate in communities and content islands elsewhere (anywhere) on the Internet.

Striking examples of this change can be observed in member participation in various NCF official forums such as Annual General Meetings. At NCF's peak membership (about 30,000) in 1995 some 16, 000 or about ± 53% of our members voted in the election. By 1999, participation had dropped to 1,081 or ±7.5%, and in 2000; voter participation was at an all-time low of 256 or ±2.6%. Clearly, governance issues were becoming less and less important to the typical member. Meanwhile, at about the same time as this year's AGM, 324 members took the time to complete our online survey focused on service offerings and the percentage of members donating has steadily climbed during the same period from a low of about 25% to the present 85%. A note telling us to "keep up the good work" accompanies many (if not the majority) of renewal donations.

NCF members value the service we provide and are willing to support it through their donations, just as they might support public television, but the majority feels no particular connection to NCF as a unique community but rather is a user of our service and a participant in other communities of his/her choosing.

Yet we are an important service in the broader community of Ottawa. Other organizations such as federal and municipal governments, high-tech firms, sister agencies like the Ottawa Public Library, the Volunteer Centre etc. respect our work and value our participation in the technology introductory process and have supported us through partnerships and donations.

As the need for access grows, and public and private sector agencies alike rely on the Internet to deliver services, The connectivity services NCF provides, combined with our experience, our infrastructure and our networking savvy will be the vital enabling component, to allow many citizens of our community to participate fully in the so called "Wired World."

## 8.  Challenges

Community networks in general and NCF in particular are faced with an ongoing challenge to remain financially self-sustaining, while retaining relevance in the community. The division between traditional Internet Service Providers (ISPs) and community networks has blurred, while institutional funding sources typically see themselves in the role of providing "seed money" rather than offering ongoing sustaining funding.

Although the membership decline has slowed, and the percentage of members donating is strong, donations from the current number of members will soon be insufficient to support day-to-day operations. The reduction of revenue arising from the decline in membership is not mirrored by a similar reduction in expenses as most costs are fixed or are presently as lean as practical.

The NCF Board has recognized that expanding its membership is the key to ongoing sustainability and plans to capitalize on its existing strengths, and explore new ways to enhance member usage and participation.

The organization is further challenged by a perception, particularly among present and former members, that the service it offers is somehow different from the Internet and perhaps inferior. In order to regain earlier numbers, NCF must find ways of maintaining relevance and aggressively communicating its offering to the citizens of Ottawa.

## 9.  Opportunities

### 9.1.   Target Market

In the beginning, NCF offered the only Internet onramp in Ottawa. Today, scores of options exist, some are free and others are so inexpensive as to be seen as competitors to NCF. Yet a significant number of people will not be able to access these alternatives because they lack the sophisticated computer equipment to connect or they simply don't know how. This niche market can be estimated at about 30% of the population of the new City of Ottawa or about 250,000 prospective members. NCF can exploit this niche by recognizing its role as a community service provider and find ways to help these people get online. NCF is in a unique position to do so, as it already provides support for modest computing equipment and has the necessary savvy and volunteer strength to develop ways to instruct and mentor those who simply don't know how.

### 9.2.   Partnerships.

NCF's alliances with organizations like Volunteer Ottawa (VolNet partner), OCRI (Smart Communities), Schools and Libraries (Urban CAP) etc. position it strategically to capitalize on their ability to communicate our offerings to their constituents. Our past performance stands us in good stead with these agencies and in many ways they view the NCF as having considerable expertise and a valuable ally in community development.

### 9.3.   Unique Services

NCF is not unique in offering Internet connectivity, email, web space etc., but we are unique in that we offer these services at a very low price, without eliminating all-important help

functions. This is particularly important to those who have been marginalized because of means or who simply don't know how. By capitalizing on this opportunity through training programs and targeted marketing, we can provide a valuable service in our community while building membership.

The increasing presence of public access to the Internet presents another opportunity for NCF to provide a service unparalleled by other providers. By early 2001, some 225 new public access sites will be open in Ottawa through the CAP program, and none will provide services such as news, public web space, authenticated email etc. FreeNet is in a unique position to be the community supplier of these services and is well positioned to partner with other community agencies in introducing and teaching technology to citizens using these public access sites.

Our WebMail and Thin Client projects further strengthen our palette of services. The Thin Client project is well aimed at those citizens who might not have access to modern technology otherwise; the same people mentioned above. The WebMail project is envisioned particularly well to facilitate partnerships with CAP sites, schools and libraries.

## 10. Projects - What's Underway, How Will They Help?

### 10.1.    Thin Client Project

NCF's Thin Client project is designed to provide opportunities for informal learning and to stimulate job skills development. The project will provide members of the community with access to modern office automation and web-authoring software through NCF's modem pool and server infrastructure. The service will provide NCF members, including those members who have relatively modest computers, with access to some of the latest Windows-based applications. The software applications will be hosted on a specialized server, with the network connection between the member's client computer and the server transporting only the keystrokes, mouse clicks and screen refresh updates to the member's client computer.

The project is designed to be self-sustaining to NCF with funding provided by Human Resources Development Canada. The HRDC grant will match the value of products and services provided in-kind by the NCF and its partners for the establishment of a publicly accessible Thin Client Application Hosting Service.  Partners currently include Corel Corporation, Citrix Systems Inc., Microsoft Canada Ltd., Rebel.com, and Softquad Software

All NCF members will benefit from this service. Users with pre-Pentium computers will have access to more recent and powerful office automation software without having to upgrade their computers. Users with more powerful computers will have access to applications that they may wish to try prior to purchasing them. Users wishing to upgrade their job skills will have the opportunity to learn how to use office software, which is now a prerequisite for many employment opportunities.

The Thin Client project will permit the NCF to introduce a new and innovative service that will differentiate it from commercial Internet service providers. This is expected to strongly support the attraction of new members, particularly those of modest means. Moreover, the project provides a unique new service for existing members, thus supporting the membership retention.

### 10.2. WebMail Project

It has been consistently noted that the most popular Internet application used today is email. Whether needed for job applications, correspondence with schools, government offices, or simply communicating with friends, access to email has become a great equalizer. Increasingly, people wish to have access to their email from a variety of locations, including from schools, public access sites, community centers offices, etc. To achieve this email portability, web-based email or "WebMail" services have become more and more popular. Yet this use of the Internet, while convenient, is not without risk and can often be problematic.

Presently, people are able to send and receive email from most Internet-equipped computer workstation, using such commercial WebMail services as http://www.hotmail.com, http://mail.yahoo.com etc. These services are offered to the public for free, and are easily accessed in a portable manner from a standard web browser.

Such web-mail services typically obtain revenue from advertisements placed on the web-mail pages and content is primarily from American advertisers. Often the advertising is not suitable for children and in some cases; users may inadvertently "click on" links to pornographic sites and/or "come-on" marketing schemes.

These free email service providers do not generally authenticate the identity of their users and the fact that users can be anonymous, creates opportunities for the unscrupulous to engage in a variety of unsafe, in some cases illegal, and always unwanted activities such as:

- Predatory messaging
- Stalking
- Death threats
- Dissemination of hate, pornography
- Distribution of spam (large volumes of unsolicited email).

Because of such risks, and the associated liability and leadership issues, many schools, libraries and public access sites now block Internet terminals from accessing these services altogether and in so doing, these institutions effectively remove a basic communications tool from those who may need it most. Those public organizations not currently blocking such use are eager to find an answer.

The use of unauthenticated email services creates a significant opportunity for abuse. Further, it can be seen that many of the social sectors demonstrating the greatest need for this tool, rely on public access and "borrowed connectivity". When email is curtailed, these people are prevented from fully participating in an interactive and participatory Internet for basic needs such as job search, government services, education and lifelong learning, through their inability to communicate with the providers of these services and their peers. Clearly, a suitable alternative is needed.

The NCF has proposed to establish and operate a Web-Mail Service on behalf of its membership. While making the most popular Internet application; email, easier than ever to access, NCF and/or its partners will continue to authenticate all new members. This authentication process promotes the responsible use of email and discourages the sending of

unsolicited or offensive messages. Through partnerships with organizations providing similar careful screening such as libraries schools etc., NCF will be able to expand the number of people who are able to enjoy this benefit and thus expand membership in NCF.

The development and provision of a server-based web-mail service will provide an excellent compliment to existing programs such as Industry Canada's Community Access Program (CAP), which funds agencies such as libraries, governments, and non-government agencies to provide public Internet access sites.

By offering a useful service which responds directly to needs already expressed by other community organizations, the bottom line benefit to NCF will be an ability to directly involve the membership of our partner organizations such as schools, libraries and CAP and thus increase membership.

### 10.3. SmartCapital

Through collaboration with many contributing partners, Ottawa's SmartCapital Project (http://www.smartcapital.ca), lead by The Ottawa Centre for Research and Innovation (OCRI) will establish and integrate a suite of technologies that enable the development of advanced online applications. These technologies will accelerate the introduction of new online services that are being developed in all sectors of the community. These services will touch virtually every citizen in the community and transform the way they interact with one another, with public and private institutions, and with the world.

SmartCapital's community services platform will provide Ottawa residents with affordable access to the Internet, to basic software applications, and to library information. It will also enable community organizations to work together more effectively and to provide improved service to their clients. Smart Community Services will include:

- National Capital FreeNet Community Services
- SmartLibrary
- Ottawa.Com (Teletourism Service Site)
- Smart Community Centre

The National Capital FreeNet's portion consists of three initiatives that will enhance all aspects of the National Capital FreeNet (NCF) services offered to the community:

1. Extended Access II

   The NCF will replicate its highly successful Extended Access Project, whereby Mitel Corporation provides the use of 48 of its telephone lines as dial-up access lines for NCF members, outside of business hours. This arrangement substantially increases the access capacity of the NCF during the evening hours, when the demands on the modem pool are at their peak, without incurring additional operating costs. This enhanced access infrastructure will be needed to support the increasing demand for dial-up access, driven in part by the expected popularity of the Thin Client Service Expansion and the Web-Mail Service.

2.  Thin Client Service Expansion

    The NCF will expand its Thin Client (application hosting) Service to provide the greater capacity required to service the SmartCapital community. This expanded service will provide access to standard office automation and web page authoring applications, hosted on a specialized thin client server.

3.  WebMail

    The NCF will also expand its web-based interface for email service. The expanded service will be required to service the SmartCapital community enhance and its many partners and constituents.

NCF's participation in Smart Capital provides a unique opportunity to replace and enhance ageing networking equipment using project funding rather than relying strictly on member donations to provide needed upgrades.

Similarly, the project enables our development and delivery of exciting new services that will encourage new members to join and existing members to stay.

Finally, the opportunity to develop community programs in tandem with Smart Capital partner organizations provides NCF with a unique marketing opportunity to be position itself as "supplier of community-based Internet services.

## 11. Conclusion

It is clear that so long as the National Capital FreeNet relies on donations from its members to support the cost of day-to-day operations, it must set membership as its highest priority. By its very nature, the NCF has always been something of an "incubator", introducing people to the Internet with a strong expectation that many will move to another city, loose interest or graduate to a commercial service. This constant outflow of members must be offset by an equal or greater inflow, so it simply makes good sense to aggressively seek ways to attract new members.

In pursuance of this objective, the National Capital FreeNet must retain broad utility, offer up-to-date services and seek strong community support to endure, and indeed to thrive. The Organization must find its niche while preserving relevance as a needed community service.

In practical terms, the NCF needs to find ways of differentiating itself from commercial providers. It needs to find and focus on a target population, one that remains hungry for NCF's services.

In the beginning, NCF's market was the whole region; the Internet itself was something only available through the NCF. Now, the majority of Ottawa residents are already online, but there are still many people who do not know how easy and cheap it is, what to do, nor how valuable it could be to them. Others haven't got the means to obtain access whether for financial reasons or lack of technical know-how. These people therefore, are our market niche; people in our community who would otherwise would be left out. The most valuable thing NCF can do today for the community is to help these people get online

As both Government and the private sector rely increasingly on the Internet to deliver services, the need for FreeNet's service will build support within the community and guarantee healthy future membership.

## 12. Recommendations:

The following recommendations are prefaced with this principle:

*"NCF's fundamental purpose is to help those people in our community who might otherwise be left out, to access current Information Technology."*

### 12.1.    Provide Internet Access

NCF should continue to provide reliable, low cost, basic dial-up Internet service.

While there is no demonstrated need to compete directly with commercial providers by offering highest speed modems etc. the level of service must provide a reasonable level of access to all of the excellent services and information available via the Internet The donation model allows NCF members to obtain services un-compromised by commercialism or cluttered by banner ads.

People tend to credit their Internet access provider with all the benefits they get from being on the Internet. Internet Access is a strong and obviously key part of NCF's service to the community.

### 12.2.    Be Up-To-Date; Be "Web-centric"

To be relevant NCF must be up-to-date and offer connectivity and services in keeping with world trends.

All new services should be offered in a web-accessible format. Priority should be given to migrating existing core services to a Web format including as a minimum the following:

1. Help desk (ncf.admin)
2. Registration
3. Announcements (ncf.announce)
4. Password changes
5. Mail forwarding
6. File management
7. Webmail
8. Searchable email directory (LDAP?)

## 12.3.  Phase Out FreePort

Members using our text-based FreePort system cling tenaciously to a "1980s approach to networking". Freeport is limiting however, because the user is blocked from full participation in all the great developments of the Web. Maintaining two types of access systems prevents NCF from making clear un-compromised hardware and network infrastructure decisions and significantly compromises Sysadmin support.

NCF should help the few people left using FreePort to "see the light" and phase out FreePort.

## 12.4.  Make Membership Easy

NCF must remove barriers to newcomers.

1.  The existing registration system should be reviewed and simplified to provide a dead-simple system, available on the web, by telephone and paper-based.

2.  Help desk support and/or one-on-one mentoring will simplify hardware configuration for newbies.

3.  Provide authentication proxy arrangements to partners and other trusted organizations such as libraries, schools etc. to simplify authentication.

## 12.5.  Focus On People Management And Community, Not Technology

The NCF is a needed community service. It operates technology, but its strength lies in its grass-roots support from the community. Ideal project leaders and Board candidates ought to be selected for their management expertise and community capacity building skills rather than on the basis of technical orientation. Experienced managers, teachers, public relations types, community leaders all could add strength to the organization.

Team leaders and Board members must themselves remain up-to-date, familiar not only with current Internet trends, but also with the needs of the community.

## 12.6.  Training And Outreach

NCF's origins are tied closely to the strength of members helping members get online. Previous outreach programs have been highly successful at both attracting and helping new members get online. NCF should develop a team to resume its training and outreach programs. The steps involved might look something like this:

1.  Reestablish a training and outreach team including Board level participation

2.  Develop training materials, handouts and how-to manuals

3.  Scout possible training venues; develop partnerships with other agencies with available meeting rooms and/or classrooms

4. Obtain necessary equipment, which will include a laptop computer, an LCD projection device, flipchart stands, pointer etc.

5. Develop a "traveling Road Show" and as the Training Team's capacity allows, actively seek out organizations, associations, schools, clubs, churches etc. and take our message to our target market.

NCF can exploit the synergy created through its association with community partners and considerable help in identifying target groups and setting up classes will be found through umbrella organizations like Smart Capital and the Ottawa Urban CAP Consortium, Volunteer Ottawa, as well as through schools, and libraries etc. who are well versed with our expertise and who would welcome an opportunity to advance technology usage in our community.

## 12.7.    Organize Help For New Members

Develop a one-on-one mentoring or "buddy" system which connects any new user needing help with a mentor who will guide him or her through initial "how to get connected" hurdles and provides a basic level of instruction on using NCF's core services.

To further simplify the process, the NCF auto-install software should be refreshed and brought up to date to simplify connection hurdles further.

Ensure that the NCF office is prepared, staffed (volunteer) and equipped to provide a warm and helpful registration and help process.

## 12.8.    Rekindle A Sense Of Belonging

The migration from FreePort to PPP connections and Web-centric Internet use has eliminated many of the tools that text users could use to network with other FreeNet users. One-Line messages, the "Who" and "Friends" commands are unavailable to most new members. The popularity of one-on-one messaging systems such as ICQ and Instant Messenger are evidence that Internet users need and want ways to find and communicate with each other.

NCF should develop or purchase a messaging system, which provides a capacity for NCF members to replicate these tools so that they are able to find each other and communicate one-on-one in real time over a PPP connection. Client software should be included on auto-install software and freely available by download. This messaging system could also be used to provide polite system messages such as "time remaining" etc.

All NCF services should be exclusive to members and new services such as Thin Client, WebMail etc. should be password protected to ensure that only NCF members are able to enjoy them.

A customizable NCF start page or portal would go a long way to helping Internet newcomers to find things relevant to our community in the vast sea of the Internet. NCF should develop or obtain such a portal and tailor it to the sites and services in our region. By encouraging members to use a uniquely NCF start page, we greatly reinforce a sense of belonging, while providing much needed navigational assistance.

### 12.9. Support Not-For-Profits And Other Community Groups

Charitable organizations and other not-for-profits are clearly among those who would otherwise be left out, were it not for a service like NCF. We currently host just under 500 such organizations and if they average two accounts per organization, these groups currently represent about 10% of our membership. Most existing organizations are quite content with our level of service. In a recent email survey of existing NCF information providers, most indicated training, particularly in Web page development as their most pressing need.

As Internet use continues to mature and evolve, these organizations will need services that today may be just appearing on their radar. To remain relevant and useful, NCF will need to keep abreast of current trends and offer those services that become important.

In the near term, NCF should examine ways of providing the following additional services to these organizations:

1. Web page hit analysis
2. Email listserves
3. Virtual domain hosting
4. cgi and interactive database hosting
5. E-commerce, e-donation, shopping cart and real time financial transactions
6. Training, especially on web page development

### 12.10. Publicity

NCF can no longer rely on the sheer novelty of its offering to attract press coverage nor has word-of-mouth been effective in recent months. In order to attract new members, we must let them know that we exist. NCF should develop a comprehensive communications strategy, which as a minimum will include:

1. Focused on target group (those who would otherwise be left out)
2. Resolves mistaken perceptions about our service
3. Exploits projects and partnerships
4. Portrays NCF as a community-based service
5. Effectively matches media with target group
6. Promotes membership

### 12.11. Projects

A glance at the 1999 financial statement will provide a strong affirmation of the financial benefit to the NCF for continuation of our community project work. So long as our membership is low, such projects provide much needed revenue to offset the shortage in revenue from member donations. If we are to keep required donations at the present very affordable level, we must find alternate sources of funding during the membership building process.

Most members, if fully informed, would accept that NCF must do things to sustain itself, including trying to attract the attention of potential members. Among the many ways to get attention, working with partners on projects will result directly in identifying new markets and attracting new members.

A sustainable future for NCF ought not to rely on external funding, but rather should be supported by revenue from member contributions. Accordingly, all projects undertaken by NCF in addition to providing income, must also satisfy the following criteria:

1. Support NCF's fundamental purpose "to help those people in our community who might otherwise be left out, to access current Information Technology".

2. Focus on developing NCF membership

3. Provide a lasting legacy to the NCF in the form of infrastructure enhancements, added services, training materials etc.

Our Thin Client, WebMail and Smart Capital projects all are in keeping with this standard, and in aggregate represent some $1.3 million in project funding and donations over the next three years. This cash infusion together with the market penetration opportunity that these projects represent, to say nothing of the permanent infrastructure improvement, will provide a solid foundation on which we can rebuild solid membership.

## 12.12. Community Strengths

Ottawa is poised to become a single community as nine municipalities are amalgamated into one "megacity" comprising a population of about three quarters of a million people on January 1, 2001.Considerable pent-up community spirit is now just emerging as citizens in our community begin to participate and support the amalgamation process. A recent call for volunteers to help with the transition process for example, was met with a flood of responses; far more than the anticipated need.

The NCF enjoys a superior reputation among community groups and municipal officials, and has been invited to participate in a variety of discussions and projects centered on getting this new community online.

The City plans a "single window services portal" for Internet delivery of municipal and other government services. As plans for this and other projects unfold, NCF's lobby and input will be well respected and listened to. The new municipality needs to ensure that all citizens have equitable access to services and information and NCF stands to become an important element in the equation.

## 12.13. Focus On The People Who Need Us Most

A shotgun approach to marketing is no longer effective. We have identified a significant niche of prospective members who will not be well serviced by conventional commercial service providers. Moreover, we believe that many of these people need some form of training or assistance, a service that NCF is well equipped to provide.

Many of these people have limited incomes, and might not have an ability to donate, but by keeping donation requests low, we make contributions affordable by nearly everyone. Interestingly enough, past experience suggests that those who can least afford to donate cash are among the first to offer their services as volunteers

## Opportunities, Challenges And A Sustainable Future

Most people, especially if informed of costs and benefits, would accept that NCF must do things to be sustainable and most will be prepared to "do their bit" to help NCF to provide reliable basic Internet access and to help people get online.

By focusing our attention on those who would otherwise be left out, we differentiate ourselves from commercial service providers and capitalize on our strengths. By understanding our niche, and providing reliable basic Internet services to those who need it most, we make the planning process easy.