HIGH-SPEED INTERNET

Understanding
The Real
Advantage

MAXIMIZING HIGH-SPEED TECHNOLOGY TO ENHANCE PRODUCTION AND ENCOURAGE GROWTH IN RURAL AREAS.

Document presented by **MJSCONNEXION** *on behalf of the*
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PART I

REPORT

SITUATION IN THE CHABOILLÉ REGION

March 2005

INTRODUCTION

In Manitoba, many rural and isolated communities have invested considerable amounts of energy and money to establish the infrastructure that would allow them to provide high-speed Internet to their citizens, businesses and institutions. This has been the case for the Incorporated Village of St-Pierre-Jolys and the Rural Municipality of De Salaberry situated approximately half an hour south of Winnipeg. In fact, this jurisdiction has made it a priority to connect its communities to high-speed Internet as part of a global development plan to ensure future growth in all sectors. To realize this project, it took several partners as well as exceptionally strong leadership from this rural municipality's Community Development Corporation commonly known as the Chaboillé CDC.

Two years ago, the Chaboillé CDC acquired the capability to offer high-speed wireless Internet in its district and already the area is benefiting from this venture. In December of 2004, Can Talk Canada opened a satellite call centre in the Village of St-Pierre-Jolys. This project has already created 20 jobs and has enormous growth potential considering Can Talk is international in scope, offering services in 100 different languages. This kind of development in a rural area could not have taken place without wireless broadband or high-speed capacity. There are many other examples of the advantages afforded by high-speed technology in rural communities. Nevertheless, there remains a very important question in relation to this subject. **Why are so many people not yet taking advantage of this technology in rural areas?**

Certainly it is important to understand that business dynamics in rural areas present different challenges then those in urban settings. The Chaboillé CDC understands that in their region many businesses and institutions are smaller and often deal with smaller volumes. On occasion there is the perception that high-speed technology may be too expensive for small businesses such as the average size agricultural producers. But at the same time it may very well be the technology that will allow efficiencies and growth within smaller or larger enterprises. It will often be the key in allowing companies to diversify and individuals to build very successful home businesses.

The Chaboillé CDC is determined to make people more aware of these high-speed technology advantages so that businesses and institutions may improve and grow. Better knowledge of this technology will also lead to the creation of more businesses and more employment. As this research document is being completed, a second call centre is preparing to establish itself in the community of St-Malo. To allow this trend to continue, the Chaboillé CDC intends on sharing throughout this document examples of high-speed applications that have proven profitable for several different kinds of businesses. Now that high-speed Internet is available in rural areas we must begin to understand and maximize its great potential.

EXECUTIVE SUMMARY

The power of high-speed technology should never be underrated. In this era of urbanization, it may very well represent the difference between a rural community's survival and demise. There exists an ideal example of this notion in a small town of two hundred people situated in Manitoba's Red River Valley. A major exporter of special crops would have had to leave this town because it became almost impossible to properly serve clients from all over the world without access to high-speed technology. However, this rural municipality's Community Development Corporation was able to forge a partnership that provided the proper infrastructure to connect the community. The ensuing results were fascinating. This international exporter that would have once been considered isolated can now deal effectively with clients anywhere in the world. Thirty jobs were saved and this very small town has now engaged in a series of community development projects that will most certainly ensure its future growth.

To form Smart Communities, it is important to provide them with the technology that allows them to communicate with the rest of the world. Even if a person lives in the smallest of towns and is able to create a good product, having access to a worldwide network to market this product is an outstanding advantage. All governments understand the importance of this concept and are working towards helping communities achieve broadband capacity. It is also this notion that encouraged the Chaboillé CDC and its municipal governments to bring high-speed wireless technology to its communities. These officials also recognized that their region benefits from a large bilingual workforce, that in itself, an invaluable resource. They also acknowledged the importance of linking this workforce with the rest of the world. By obtaining high-speed wireless capacity, the Chaboillé Region has now attracted two call centres and has also provided the opportunity for enormous growth in that industry. This is a prime case in point to demonstrate how wireless broadband capability can provide so many outstanding development prospects for rural communities.

As much as this technology is able to create opportunity, in the Chaboillé Region there remains a large number of potential clients that have not yet subscribed to high-speed service. The Chaboillé CDC has helped create the Rat River Communications Co-op, a local wireless broadband Internet provider that has been working to respond to consumer needs in the most cost-effective manner possible. At first, start-up costs were approximately one thousand dollars for subscribers and subsequently this Internet provider lowered these rates to three hundred dollars for most subscribers. The Chaboillé CDC and interested parties came to understand that affordability of this technology has been one of the hardest obstacles to overcome in order to achieve wide spread use of high-speed wireless Internet in this region. In fact, individuals and small businesses have been slow to connect to the high-speed system. Many of them are concerned that the size of businesses they manage could not justify the investment in this technology.

In order to find out more about the difficulties that are preventing additional subscribers to take advantage of this system, the Chaboillé CDC has engaged in this important research project. An extensive consultation with businesses and institutions allowed the CDC to examine what factors obstructed the use of high-speed technology in its region. This process also allowed for the analysis of high-speed applications that have proven to be most useful for businesses and institutions. Sharing these established applications is one of the principal objectives of the study and they will be made available within this research document. The Chaboillé Region understands the importance of connecting its people to high-speed wireless Internet, a technology that gives access to a vast information and communication network. It is now engaged in the process of demonstrating how this technology can provide outstanding advantages to all potential clients in the Village of St-Pierre-Jolys and the Rural Municipality of De Salaberry.

PURPOSE OF RESEACH

The main purpose of this research project is to determine what factors are obstructing high-speed Internet use in the rural district of St-Pierre-Jolys and the RM of De Salaberry.

Two additional objectives are related to this main purpose:

- Determine what are the needs and methods, which will expand high-speed utilization in this rural district.
- Demonstrate how high-speed Internet applications have benefited those who have already integrated this technology to their operations.

METHODOLOGY

Representatives of 26 businesses and organizations in 7 different sectors were interviewed in order to gather information related to high speed Internet utilization in the rural district of Chaboillé. A questionnaire has served as the principal instrument to collect data from contributors of this project who were all consulted in person by the investigator. It should be noted that follow up interviews were made over the phone with more then half of the partakers of this study. The investigation also provided an appropriate balance of interviews by consulting those who had already adopted high-speed technology and those who had not yet done so. In addition throughout this study the investigator has conducted interviews with representatives of the Chaboillé Community Development Corporation and a technical adviser from the Rat River Communications Co-op. The following are the principal questions that were posed to the 26 interviewees who collaborated in this study.

- Do you use the Internet to do business? (If yes why? If no why?)

- Describe which high speed Internet applications most benefited your business or organisation?
- Describe which high-speed Internet applications you feel would benefit your business or organization?
- What services do you offer exclusively on line and what services do you offer exclusively off line?
- What were the main advantages for your business or organization after the region benefited from high-speed technology?
- Is there anything you would like to do with high-speed technology that you have not yet been able to? If yes why have you not been able to?
- Can you identify areas where high-speed technology could provide further efficiencies for your company or organization?
- In your opinion why are there not more businesses and people in your area utilizing high-speed technology?
- In your opinion what are the best measures that could be taken to encourage the expansion of high-speed Internet in your rural district?

Interviews were carried out with representatives belonging to the following sectors:
- Agriculture & Farms
- Retail & Service
- Tourism
- Consultants and Professionals
- Food Service
- Manufacturing
- Non-Profit Organisations & Institutions
- Governments

The above sectors were chosen in conjunction with the Chaboillé Community Development Corporation on the premise that they are central to this rural areas economy.

HISTORY OF THE CHABOILLÉ COMMUNITY DEVELOPMENT CORPORATION

The Chaboillé Community Development Corporation (CDC) was created in 1996 as a result of two rural municipal governments pooling their resources to be more effective in the management and the coordination of their economic and community development endeavours. The Village of St-Pierre-Jolys and the Rural Municipality of De Salaberry, which includes the communities of St-Malo, Dufrost, and Otterburne, also belong to the Association of Manitoba's Bilingual Municipalities (AMBM), an alliance of 17 bilingual municipalities throughout the province that promotes community and economic development projects in both the official languages of Canada. The AMBM created a group called the Economic Development Council for Manitoba's Bilingual Municipalities or the CDEM. Their role is to offer bilingual municipalities the tools and the expertise to achieve their community and economic development initiatives. With this support structure, the Chaboillé CDC has been able to create a long-term community development plan for its designated region.

The development plan was created after extensive community consultations. While many priorities were established in areas such as agriculture, tourism and other relevant sectors, one principal objective that came out of this exercise was the importance of a good infrastructure, telecommunications being a vital one. The Chaboillé CDC made it a priority to connect its region to broadband technology and in the fall 2002 this came to fruition. However, this could only be done through the collaboration of the regional school division who agreed to put up the infrastructure and become a major user if the community found a way to access broadband. From this agreement, and with the assistance of Manitoba Hydro, local network technologists and the municipal governments, a new High Speed Wireless Internet Service Provider was formed and called the Rat River Communications Co-op de communications Rivière aux Rats.

The Chaboillé CDC was established to help businesses and encourage new economic development projects for both the R.M. of De Salaberry and the Village of St-Pierre-Jolys situated within the municipality's borders. The CDC works very hard to create and support any initiatives that can contribute to the region's growth and well being. Over the years many grain and livestock farmers as well as other related agricultural businesses have flourished in the area. In addition, with the presence of the St-Malo Provincial Park and many related recreational businesses, the area also benefits from a very strong tourism sector. The region also is a centre of excellence for bilingual services through the Centre Médico-Social De Salaberry District Health Centre, the Bilingual Services Centre Red River Region, the RCMP detachment and several provincial government departments. Surely, since its inception in 1996, it has been the Chaboillé CDC's intent to ensure the growth of these well-established sectors and to help other businesses and economic sectors reach their potential. With the Chaboillé CDC's mandate to support community and economic development, one very important tool had to be made available, and that was high-speed wireless Internet, commonly referred to as broadband.

Now that this very essential economic development tool is available, the Chaboillé CDC understands that it must provide methods so that all potential clients really come to recognize how broadband technology can help make them better and make them grow.

OBSTACLES TO HIGH SPEED USAGE IN THE CHABOILLÉ REGION

In 2002 when high-speed wireless Internet was made available in the Chaboillé Region, some larger institutions and businesses had already acquired alternate high-speed services. Providence College in Otterburne, which serves approximately 1,000 students, had decided to establish its own independent high-speed service through an agreement with Manitoba Telecom Services. The De Salaberry District Health Centre and provincial government offices were restricted to a provincial government internal high-speed service. The end result was that some of the most lucrative customers were not available for the new regional wireless Internet provider. This resulted in the existing client base being mostly made up of residential and small businesses. All indications are that these clients need more time to understand how the high-speed technology can help them. They also need to find out how their investment in this technology can translate into efficiencies.

A large percentage of partakers in this research project have expressed some concerns with regards to affordability of the system. One businessperson in the retail sector pointed out that he still uses dial up even though this Internet connection through a phone line is much slower then broadband. Yet, he claims that it still allows the business to carry out its main functions, which consist of regularly posting adds for his products in newspaper advertising sections by means of the Internet. Although it should be emphasized that this same businessperson also understood that as the company grows, high-speed Internet would provide him with an extraordinary marketing tool through a website and other advertising instruments. However this rural region must contend with the fact that many businesses are small and deal with smaller volumes of work. For that reason they remain reluctant to invest into information systems and high-speed technology.

If there exists this reluctance to invest in high-speed technology, it is also because many businesses do not fully understand how broadband can benefit their specific needs. For instance one partaker in this research project insists that many tourism businesses like campgrounds are quite small and do not yet appreciate the benefits that come with high-speed. This campground owner maintains that by simply adding a website and communicating with clients by e-mail they dramatically improved the dynamics of their tourism business. They are now able to attract more travellers from farther away, because they provided enough information through the Internet so that the clients feel very comfortable with the campground they will be visiting. In light of this development, this

campground owner finds it hard to understand why so many campgrounds have not yet taken advantage of this technology. This lack of understanding of what high-speed Internet can do for small business applies to many different sectors. Many participants in this study were quick to point out peoples' lack of knowledge of how broadband can improve small business. Almost everyone insisted that there needs to be more education to make sure a lot more people are made aware of the many advantages.

It is also interesting to note that a retailer in the Chaboillé Region, who is a part of a large franchise of stores, does not yet benefit from time saving applications such as on line ordering or automatic inventory control systems. That system allows stores to be connected by way of the Internet to a central system that monitors inventory in each store and automatically replenishes stocks. There are situations where large companies do not yet make those systems available to their stores. Consequently, we cannot take for granted that rural businesses associated to larger companies are using high-speed Internet to a greater degree.

Throughout this research project, trends have demonstrated that businesses serving clients of an older demography are slower with the development of high-speed Internet applications. This trend seems to be predominant in areas related to agriculture whether businesses are big or small. In fact representatives of a large company in the Chaboillé Region who sells products to farmers, maintain that their clients are from an older generation and that they insist on doing business in person or over the phone. The representative of this large company went on to say that surprisingly they use high-speed Internet exclusively for a few e-mails to communicate with head office. In agriculture and other sectors as well, the major impediment to high-speed usage seems to be whether or not the clients demand the service.

There is no doubt that high-speed technology is very new to the Chaboillé Region and in many other rural areas. There seems to exist this reluctance from businesses and institutions to offer or expand services for their customers over the Internet because they are not sure how many of them are ready and willing to adopt this new way of doing things. The major dilemma with this situation is that it becomes difficult to encourage more people to use the Internet if services through this technology are not yet available to them.

SOLUTIONS

Almost everyone involved in this study stated that high-speed wireless Internet should be made more affordable. Almost everyone interviewed also added that they should have access to more education to learn how this technology works and what advantages it can provide to users. Many partakers in this project suggested that measures should be taken to organise more workshops on high-speed technology. However contributors to this study also suggested that we have to go beyond workshops to make more people comfortable with this technology. Many of those interviewed proposed the idea of

providing one-on-one training to clients who wish to subscribe. Different levels of training should be designed and made available based on the subscriber's knowledge of high-speed technology.

Whether this is done through the CDC or through the Internet provider, the consensus is that subscribers should benefit from a training course and lasting technical support. One idea, which merits ample consideration, is that an information technology plan be made available to subscribers in the same way that we assist new businesses with a business plan. With the support of an information technologist, this idea would allow business and individuals to chart out a map of their technical needs and provide valuable information on the advantages of high-speed. Here are the measures that have been brought forward during this investigation.

- ➢ Although upfront costs for subscribers have been already lowered in the Chaboillé Region, providers should try to make them even more affordable.
- ➢ Provide more workshops to make individuals and business more aware of high-speed technology, its new applications, and its advantages.
- ➢ Provide one-on-one training sessions and different levels of courses in order to respond to the clients who possess different levels of knowledge in high-speed technology.
- ➢ Encourage larger businesses and institutions to provide services online in order to encourage more people to use Internet applications.
- ➢ Provide lasting technical support
- ➢ Promote in as many ways possible the advantages of high-speed technology in the Chaboillé Region.
- ➢ **Assist subscribers in producing an information technology plan in the same way Development Corporations assist businesses in producing a business plan.**

The idea of assisting potential clients in producing an information technology plan would bring to the process significant credibility. Recognizing that many individuals do not understand the effectiveness of high-speed technology, this method would make the advantages obvious for each individual situation. It is highly recommended that the Chaboillé CDC look into methods in which this information technology plan could be made available to potential clients of high-speed Internet. It should be noted that a promotional campaign on the advantages of the technology would at the very least encourage the population in the region to start thinking of the possibilities related to high-speed Internet.

DEMONSTRATED ADVANTAGES

The Chaboillé region now benefits from two local high-speed Internet providers, which are the Rat River communications Co-op and Conexe Systems, a private company based in Saint-Malo. These suppliers of high-speed technology are so very important to rural areas because their wireless broadband system allows them to reach all clients, even if they are located outside the district's main communities. This service is vital for operations such as farms and campgrounds as well as many other customers situated in remote parts of the municipality. These local providers also have the capacity to offer high-speed services in neighbouring municipalities. The Chaboillé CDC has realized that the role of local providers can also be extremely important in attracting new and larger customers, because they are willing to respond to their specific needs for the economic benefit of the community. The CDC states that the local provider's flexibility was a key factor in establishing call centres in Saint-Pierre as well as Saint-Malo. While consumers located in towns now have the option to subscribe to the phone companies DSL high-speed system, local high-speed providers are able to serve all costumers no matter where they may be located in the municipality.

As mentioned earlier in this document, the establishment of Call Centres in the Chaboillé region would not have been possible without the availability of broadband. Broadband is the link that is allowing this small rural location to really benefit from its bilingual workforce. It is important to note that this technology also facilitated the delivery of services by the Bilingual Services Centre in St-Pierre-Jolys. Without broadband, several internet-based services would have depended on dial-up and the use of videoconferencing equipment would have been non-existent. It is important to consider whether it would have been possible to attract government offices without high-speed technology? Would it be possible to attract agricultural businesses that specialize in export products without high-speed technology? The Chaboillé CDC maintains that Communities must begin to understand the competitive edge they gain from being connected to wireless broadband.

Businesses related to sectors like tourism that are trying to reach clients at a great distance are more likely to benefit from high-speed technology. They also seem to be more open to applying this instrument in the most innovative ways. The owner of a Bed and Breakfast in the Chaboillé Region maintains that access to high-speed Internet has become an extraordinary promotional tool. This person can now reach clients all over the world in a very effective manner. By means of a website, clients from anywhere can see pictures of the facilities and become very familiar with the accommodations. The results according to this owner have been incredible. The business has been able to expand its client base and is greeting a lot more travellers from Europe. Pamphlets and ads in travel magazines seem highly inadequate now that small tourist operations have access to broadband technology and all its promotional applications. This Bed and Breakfast owner also provided a good example of how this technology led to business efficiencies. Clients can now book rooms over the Internet, where as before they used to do it over the phone and call at all hours not taking into account different time zones. This businessperson no

longer has to manage the phone 24 hours a day and is quite satisfied that clients are well served through an Internet booking system. Consequently, the manager of this business has more free time to contribute to another family company.

In the Chaboillé Region, many businesses have not yet taken advantage of this opportunity to reach clients at a great distance through different Internet applications. It does not mean that all businesses should try to win over clients from other continents. However, it has been determined through this consultation that many small and medium sized businesses in the region do benefit from a strong regional client base that may extend over a 50 to 100-kilometre radius. For instance an accounting firm who took part in this research project now benefits from satellite offices that are connected via high-speed Internet and serve a large regional client base. A pharmacist taking part in this study says that with the introduction of high-speed applications, his business has been able reach more clients at a greater distance. For the Chaboillé CDC, high-speed technology is a great way to access a larger customer base and it would like to see more businesses in more sectors take advantage of this opportunity.

An Internet provider who contributed to this study says that rural communities with broadband technology also have the opportunity to create a large variety of really interesting home-based businesses. This allows more professionals to work from their homes and to contribute to the rural area's economy. For instance, since the Chaboillé region benefits from broadband technology, it has seen two high school students establish a very successful website production company from their home. A senior civil servant has retired and now runs a consultation firm from his home as well. A consultant on international agricultural affairs is now able to operate his business from his home and hobby farm. The Chaboillé CDC states that there are additional examples of home businesses, which have benefited the areas economy because of access to broadband technology. Being connected at home also means that you always have access to the workplace. The manager of a golf course in the Chaboillé Region said that he would like to install a surveillance system, so that he can monitor sprinklers from his computer at home located a few miles away. He would not have to drive out several times every evening to make sure everything was in order. He would then have the option to perform administrative duties either from home or at work while always being able to keep a close eye on what is happening on the golf course.

Electronic messaging or e-mails is the most common high-speed Internet application. It is widely used in the workplace to send electronic messages instantly. In the Chaboillé Region, very busy professionals like municipal administrators say that e-mail is a great tool to organize all municipal tasks. At all times it is possible for the administrator to get his message out to councillors and have them well briefed for meetings later on in the evening. It is possible for administrators to send work orders to municipal employees located at the municipal garage and save a lot of time trying to reach employees over the phone.

In this research project many contributors identified product research as a great advantage for any company or organisation that wishes to find out more about the products they use or purchase. Some contributors of this study understand that High speed Internet offers enormous research capacity whether it is for educational purposes or other motives. As it was mentioned earlier in this document, already some companies have demonstrated that websites are very effective ways for companies to market their products. It has proven to be an extraordinary tool especially for small tourism businesses in the Chaboillé Region that always had a lot of difficulty reaching clients who live at a great distance. Definitely the capacity to advertise products over the Internet led to some other interesting applications such as on-line shopping. Services such as on-line banking and paying bills on-line are all time saving applications that can help people and companies become more efficient but only a small number of participants have been able to take advantage of these applications. Voice over IP is another application that opens new avenues. Instead of using the phone lines, users can hold a conversation through their broadband connection and reduce phone expenditures considerably. But this application is hardly utilised in the Chaboillé district because many potential users have yet to be convinced that more common applications can provide them with economic advantages. The Chaboillé CDC maintains that all these applications can contribute to making businesses and institutions more productive as well as encourage economic growth in rural areas.

CONCLUSION

It is important to appreciate that high-speed technology has only been available to the public for about 10 years. The technology in most rural areas is fairly new. In the Chaboillé Region, broadband is about two years old and it has already contributed to maintaining and creating employment in the area. The region has seen an accounting firm grow its business because broadband enabled the firm to access a larger regional client base. The local governments were able to attract provincial government services and all its related jobs. Small tourism operations gain access to a powerful marketing tool through the establishment of a website. A consultant who deals in international marketing can run his business from his own home because he is connected to the world. These are significant advantages and it is of utmost importance that more people in this region recognize what the technology can do for them.

This investigation has demonstrated that the development of broadband applications would be slower in rural areas where populations are older and slower to adopt new technology. However, the study also established that there exists opportunities to assist new clients in learning this technology. Many contributors of this research initiative have said that if clients could be supported to develop an information technology plan, they would then be in a better position to identify the advantages. They would also be able to establish the relation between the costs and the benefits associated to high-speed technology. Issues relating to its affordability would then become less of a factor. The region would also benefit from promoting the advantage of this technology through the achievements of small business or home businesses.

Throughout this study, all indications are that it will take some time before people in many rural areas adapt to this new way of doing things. Advocates of this technology will have to invest more time in supporting clients and encouraging them to integrate high-speed technology within their functions. Local governments and institutions could also contribute to an increase in high-speed usage by setting the example and offering as many technology based customer services as possible. If customers have the opportunity to pay their property taxes and utility charges on-line, more of them will be able to justify the investment in the technology. More of them will recognize the many advantages associated to broadband. It's been demonstrated that Smart Communities become more productive and attract new businesses. That is why the Chaboillé CDC is convinced that the region must take full advantage of this powerful communications instrument.

PART II

UNDERSTANDING
THE TECHNOLOGY

March 2005

UNDERSTANDING THE TEHCNOLOGY

High Speed Internet is a Technology that has been available to the public for the last five to ten years. This remarkable technology gives people rapid access to a large network of information often referred to as the WEB. People gain access to this massive information system mainly through their computers. It is important to understand that not all communities benefit from this technology because many rural and remote areas remain without the infrastructure that allows them to be connected. Different technologies and infrastructures must be made available for those communities who are connected.

DSL or the (digital subscriber line) is one of the methods to gain access to high speed Internet through phone lines in areas where phone companies provide this service. It is also possible to access high-speed Internet through television Cable Company networks. Satellite and wireless systems allow more isolated areas to be connected. In fact, many rural areas must rely on a system of towers and relays with transmitters in order to benefit from high-speed technology. Fibre optics is the most effective and reliable technology that exists, although it is also the most expensive. It involves running a large wire underground with a great number of strands that quickly transmit information to allow high-speed connection.

To understand high-speed technology, it is important to be aware of the infrastructure that will enable communities to be connected. In essence, more then one Internet provider may serve a community. Some of those providers may be phone companies, cable companies or regional wireless Internet providers. Smaller regional Internet providers must be connected to larger providers to form this integrated transmission network. In the end communities must be connected to a national and international network of providers to have access to high speed Internet. This infrastructure gives individuals and companies access to unlimited quantities of information and a most extraordinary communication tool. It is important to note that this infrastructure or transmission system that allows communities to be connected to the web is referred to as broadband or high-speed technology. Before the arrival of high-speed technology, some communities like St-Pierre-Jolys could access the Internet via their phone lines through a technology called dial-up. It is imperative to point out that all contributors to this research project insisted that dial-up technology was too slow and unreliable.

MAIN APPLICATIONS

- **Electronic messaging or E-mail**
- **Product research or general research**
- **Website / advertising / costumer information**
- **On-line services like shopping on-line or banking on-line**
- **Voice Over IP (business to business)**
- **Videoconferencing**
- **Mobile Management systems /Security & Surveillance**

THE IMPACT OF BROADBAND TECHNOLOGY

What does broadband bring to your community?

Broadband can increase tourism opportunities by enabling on-line marketing resources to promote local and historical attractions.

High-speed Internet brings a large audience and buyers to rural area artisans and craftspeople, allowing them to promote and sell their work via the Internet.

Broadband can help to ensure that families, businesses and youth in rural areas are not forced to leave their community to find a better economic future elsewhere.

What does broadband bring to your municipal government?

Broadband can provide a technology-based customer service centre that allows a one-stop shop for municipal transactions such as licensing, billings, permits and utility payments.

What does broadband bring to businesses?

Broadband can increase productivity by enabling the transfer of large data files directly from regional satellite offices to regional centres and to head offices located out of province or even out of country.

Employees can access better training opportunities whether they need to train for new product offerings or to refresh their knowledge on current products or services.

Businesses can use high-speed Internet to monitor shipments and seek out other export markets, enabling them to compete successfully with markets outside the province.

Broadband allows businesses to conduct net-meetings or face-to-face meetings using videoconferencing to discuss urgent decisions, minimizing travel costs for companies who are regional, national, or international in scope.

What does broadband bring to agriculture?

Commercial farming operations can use broadband to network and connect barns, enabling the transfer of data between these operations using wireless communication.

Custom crop spraying operations for grain producers can use broadband to enable voice communication and data transfer to and from operating units and equipment in the field. Broadband can connect livestock farmers with workers in the fields, family at home and other operations using a wireless communication network.

Information about the farming industry, growing conditions and animal health is more easily accessed with high-capacity Internet.

Broadband provides access to larger markets and expanded marketing opportunities.

What does broadband bring to your school?

High-speed Internet allows teachers to take advantage of many on-line resources and integrate them into every day classroom activities.

Students in rural and remote communities can easily surf the web to access an unlimited research network and benefit from valuable educational experiences like virtual museums.

Broadband can connect students from schools in the Chaboillé Region to teachers offering extra curriculum in Winnipeg.

CASE STUDIES BY SECTOR

Agriculture & Farms

A large livestock farmer in the Chaboillé Region has really taken advantage of broadband technology. His farm is equipped with cameras and radio transmitters that enable him to monitor all aspects of his operation from his lap top computer whether he is in his tractor or on vacation half way around the world. This security and surveillance system allows him to monitor temperatures in barns or even check if his manure pump is working properly, from anywhere. It also means that he can check stock prices while working in his tractor. It is a mobile management system that allows one person to do many things at once while giving this person the piece of mind that nothing destructive can happen to his operation. This system can also be applied to grain or diversified operations so that farmers can always stay close to their business no matter how far they may be.

Even small farmers can benefit immensely from being connected to high-speed Internet because it enables them to access information on farm equipment. A farmer in this research project insisted that equipment breakdowns during key times like harvest can really set operations back. But product research through the Internet can provide the farmer with all the necessary information to guide him and to ensure a quick repair of an essential piece of equipment.

Companies large or small who sell agricultural products to farmers can really benefit from high-speed technology by using it for product research. A large feed company in the Chaboillé Region understands the importance of staying on top of changes and the science behind animal feed. High-speed Internet provides access to a great source of information to improve products especially when dealing in a competitive environment. The Internet can also become an essential communicating tool between Feed Mills who must coordinate volumes between one another.

Retail & Service

Without a doubt high-speed Internet can completely transform how retail businesses operate. A pharmacy in the Chaboillé Region does all of its purchasing on-line by sending orders to wholesalers via the Internet. This system is linked to a central inventory structure and is designed to automatically replenish stocks in associated stores. With this application the owners save numerous hours of work ordering products over the phone. Owners of this business can also provide clients with almost instant information on medication because they now have access to a drug and therapeutic research site through a special code. Previously, acquiring this kind of information could take days. This pharmacy can also offer its clients a website to provide them with valuable information on pharmaceutical products and for advertising purposes. High-speed Internet allows this retail business to communicate with other pharmacies and share information that enables them to better serve their customers. This business also uses on-line banking, which means it can always have access to its bank account. This application combined with e-mail helped make this retailer's administrative functions much more efficient.

High-speed Internet has provided a computer sales and repair company with the tools to become increasingly efficient. One of the most significant advantages is related to downloading drivers, which is one very important aspect of this computer service enterprise. It used to take this company three hours to transfer software and its related updates while now this is done in a matter of minutes. In the context that computer technology is changing rapidly and constantly, this business owner can take advantage of high-speed research capabilities to always be at the forefront of this industry. Research for new product concepts is important, but having the capacity to reach suppliers mostly located in eastern Canada is essential. Again e-mail is a practical and efficient tool to communicate needs to suppliers. The owners of this computer business also like the idea that through the e-mail you can keep a record of any electronic messaging so that there is never any confusion. This young company is now in the process of creating a web site that will give it unprecedented options over how it does advertising and how it serves its costumers. With high-speed Internet owners can also benefit from Internet courses to maintain their skill level. In this case a small computer company in a rural area can

provide services to a large region on the same level playing field as a similar business in an urban setting.

One furniture store in the Chaboillé Region claimed that his clients belong to an older demography and that they do not use the Internet a great deal. However, he has already taken advantage of high-speed technology for product research to help his clients find specific furniture, appliances and parts. To simplify administrative duties this businessperson uses an on-line invoice payment application. In view of the future, this owner intends on setting up a website and selling products online. For this retailer high-speed technology will certainly facilitate his transition from an older to a younger client base. This retailer also considers the Internet a great tool to sell specialized items nationwide and abroad.

Tourism

A Bed & Breakfast in the Chaboillé Region found that high-speed Internet became an outstanding marketing instrument. This technology allowed this extremely small tourism operation to reach customers all over the world for a very minimal cost. In this case the owners were able to set up a website with photos of their facilities to ensure that customers could really become familiar with the accommodations. Reassured clients, means more people booking ahead of time and more people from overseas visiting this tourism business. This website, which includes a map, also allows customers to familiarize themselves with the region. What's more, customers can book their rooms over the Internet 24 hours a day and the owner can be out doing something else. Eventually this owner would like to update his website and give the customers the opportunity to go through a virtual tour. There is no doubt for the owner of this Bed and Breakfast that high-speed technology has become an invaluable marketing tool.

In the Chaboillé Region, tourism is a large industry and it mainly revolves around the St-Malo Provincial Park. A campground owner in this area is convinced that High-speed Internet provides his business with the best promotional tool possible. A website became the manner by which the facilities are shown to a national client base and e-mail has proven to be very efficient in answering customer questions. This owner will even go further and say that e-mail has allowed them to establish a relationship with their customers even before they show up for their holidays. Customers appreciated quick replies and said that they already felt an attachment to the campground and its owners. The results have been an increase in customers from further away and more new customers from Manitoba. The next step for these owners is adding an on-line reservation system.

Just like other tourism operations, a golf course manger in the region expressed the importance of high-speed technology to be able to reach clients from all over. However, this operation's web site is a superb marketing tool for golfers because it allows you to map out the course and provide profiles for every golf hole. This is usually of great interest to avid golfers. In the context that this golf course will attract many corporate clients from Winnipeg, a good website and applications such as e-mail are essential to serve a technically oriented customer base. The management of this golf course understands the importance of high-speed technology and it intends to introduce applications such as on-line bookings, an interactive website and on-line weather updates. This information on weather conditions will be invaluable for business because often when it rains in Winnipeg it is not the case in the Chaboillé Region. Consequently clients from Winnipeg will always be able to find out whether it is possible to golf or not.

A small museum in the Chaboillé Region has created a web site to promote the museum's products and services. This non-profit organisation has a very small budget and always had difficulty promoting itself. The arrival of high-speed Internet is a very inexpensive way for this organization to reach clients anywhere. It also facilitates dialogue with other museums for the exchange of ideas and for common promotional purposes. This museum can now offer on-line bookings, which will allow it to work directly with touring companies and ensure an increased number of visitors. Directors of this organization say that high-speed technology has also helped promote the museum's hall and catering services for large gatherings.

Consultants and professionals

For an accounting firm in the Chaboillé Region, which serves a large regional client base, high-speed Internet has become essential to the company. Clients are able to send relevant accounting data by e-mail, which is much faster and eliminates disks or CD's. The firm can easily download accounting software programs and related updates. Before, this was not possible with dial up. The Internet becomes a quick and effective research tool for a business that deals with farm programs, tax treaties between countries and international tax laws. This firm wants to establish a web site and offer customers the latest information like tax tips and new regulations. Voice over IP is an application that allows people to talk over the phone however it is done through the broadband network which enables companies to significantly save on phone expenditures. Through high-speed this firm can communicate with other satellite offices in the region and in Winnipeg. The technology has meant that the head office of this firm can be located in a rural area and have access to clients in Winnipeg or province wide for that matter. It is much easier for this firm to find extra help towards tax time, if people can work for them

from their own home. Small rural accounting firms can grow significantly now that they are connected to an almost unlimited market.

An Autopac and general insurance broker in the Chaboillé Region must count on high-speed Internet for almost all the office's main functions. All automobile insurance transactions are sent via high-speed to a central Autopac management system. The arrangement enables instant vehicle insurance and eliminates a lot of paperwork. Clients can now choose to make time payments on-line. It is also easier to order Autopac supplies on-line. Communication between this agent and the large insurance companies it deals with are frequent and electronic messaging or e-mail is a very useful tool for that situation. In the case of insurance claims, high-speed technology is an ideal way to download photos and send them to relevant parties. This insurance company has benefited enormously from high-speed technology because it can sell insurance products on-line. Yet again it becomes a great way to reach and expand the company's client base. In the future the company hopes to be able to download banking information from its financial institution and expand on-line banking applications. One of the managers also would like to add a mobile management system so that she could work from either the home or the office. Voice Over IP is also a consideration to save on long distance phone calls.

High-speed Internet has made it possible for a consultant in agricultural marketing to live in the Chaboillé Region and to do business on the world stage. This expert can communicate with international clients. He can have access to unlimited quantities of information for market research. The e-mail became a practical communicating tool, which led to considerable long distance savings for this businessperson. Even if this consultant must often travel to foreign countries, he remains connected to his office at all times. In the future, he intends to use on-line banking to simplify administrative duties. High-speed Internet will even enable him to diversify his operations and grow specialized products on his farm to sell them on-line.

Food Service

The owner-operator of a restaurant and baked goods business has an important objective, which is to promote healthy eating. High-speed Internet is an essential tool for research and innovative ideas on food and recipes that can improve this businesses product. A website allows this specialized foodservice business to update and promote all new products and keep clients informed on healthy eating. The Internet also provides information on seminar opportunities and allows this small business to benefit from contacts with different associations in the industry. This businessperson pays most of her bills on-line. With high-speed technology this operator has access to a large client base

and can reach them far away by selling products on-line. In the end, high-speed technology allows this one person to run the kitchen and the business without a lot of help, which brings major efficiencies to a small business.

A restaurant owner in the Chaboillé Region will soon be taking advantage of high-speed Internet because the technology will allow him to research products and monitor product pricing. He would also like to begin ordering certain goods on-line because more suppliers are providing him with this opportunity. In addition he is interested in establishing a website for promotional purposes. This businessman understands the importance of high-speed Internet and wants to be part of a group of businesses in the region who want to co-promote events that will attract large numbers of people to the area. This restaurant also provides facilities to accommodate large groups, which is why management would like to provide clients with an on-line booking system.

Manufacturing

The owner of a food processing plant grants that he lacks the knowledge to really understand what high-speed technology can ultimately bring to his business. However he recognizes the advantages of the concept and when his son takes over the business, he will most certainly invest in the technology to make the plant more efficient. Product research and monitoring prices of suppliers would be a great asset for a food processing plant that deals in great volumes. This businessman understands that applications like ordering supplies on-line can save several hours on the phone while this task could be done anytime, even when suppliers are closed. The plant, which deals mostly with institutional buyers, could receive orders on-line and get a better measure on production needs. High speed Internet would allow great marketing options like web sites and information on healthy foods for this business that also deals in retail.

Most manufacturers in the Chaboillé Region are small businesses like cabinetmakers, or welders. Nevertheless, high-speed technology can certainly assist them in making their operations more efficient. Product research is an important application for those in manufacturing who want to acquire the latest information on new designs. They could also access information to increase their knowledge about new trends in the market. If welders are manufacturing parts for large bus companies, it is always a good idea to be at the forefront of their new developments in technology. It is important to determine if a small manufacturer can provide theses changing markets with the new products that large companies are looking for. High-speed Internet provides small manufacturers with drafting software that can also help them design and develop new products. In addition broadband is an outstanding tool to stay in touch with major buyers. It enables small manufacturers to gain better control over the marketing facet of their companies. A

business in the Chaboillé Region that produces electronic equipment for hospitals is not convinced that it could have stayed in this rural area without the arrival of high-speed Internet. They sell most of their equipment to hospitals in the United-States and they must be able to follow-up and provide information and help customers become more familiar with the product. This must be done by e-mail or they must provide related product information through a website. This manufacturer also relies to a great degree on high-speed research capacity because the products he builds are forever changing and he needs to be well informed on all new trends. Research and development is a major part of his business and high-speed technology gives this manufacturer access to enormous quantities of information.

Non-profit Organisations & Institutions

In the Chaboillé Region one institution provides university level courses to more than one thousand students. Such an important institution situated in an isolated area must be able to use high-speed technology to establish a comprehensive web site for promotional and marketing purposes. This institution that deals with a young technologically savvy generation must be able to offer services like on-line tuition payments. For administrative duties, on-line banking has been a very efficient tool for this establishment that remains at a considerable distance from services. However, the most essential high-speed tool for this institution is the capacity to perform academic research and benefit from an on-line library database.

A large retirement residence in the Chaboillé Region has found that high-speed Internet has simplified many coordinating and administrative tasks. Being located in a rural area, the e-mail has made it much easier to communicate with important government collaborators like Manitoba Housing. The e-mail brings the capacity to obtain answers and decisions so quickly and enables administrators to move faster on changes that will improve the institution's overall effectiveness. For instance, inquiries to accountants or other professionals are answered in a matter of minutes. Understanding that their clients are from an older demography, this institution also recognizes that their children support many of them. That is why a web site with information on this retirement residence is also a valuable advertising asset. In fact, improvements to the web site will eventually offer clients a virtual tour of the facilities. This residence uses on-line ordering for food and office supplies. It even ran an on-line survey to consult the community on a possible expansion of the facilities. It is important to note that this expansion would include access to high-speed Internet in each new room to serve future residents who will be younger and more familiar with the technology.

Governments

In rural areas high-speed technology has given invaluable support to very busy municipal administrators and staff. The e-mail application in itself has given local governments in the Chaboillé Region significant advantages in coordinating daily activities. Setting up council meetings has been simplified because administrators can now send information and brief councillors on issues they will be discussing at council meetings. Web sites provide ratepayers with enough information to free staff to perform other duties, which improve the overall effectiveness of the office. Municipal staff can book hotels and conferences on-line. They also have the opportunity to share information with other municipalities that have experienced similar administrative challenges. Product research is a remarkable advantage when councillors must decide to purchase large expensive items such as heavy equipment and machinery. On-line banking is also an important feature of high-speed technology because it allows administrators to constantly monitor financial circumstances.

Local governments in the Chaboillé Region recognize the importance of informing ratepayers on municipal affairs. Many of them like the idea of establishing a community calendar on their web site so that residents are constantly reminded of council decisions and community events. With high-speed Internet different community groups can gain access to this calendar and contribute to bringing information up to date. More and more municipalities are looking into establishing a technology-based service centre that allows a one-stop shop for municipal business transactions such as licensing, billings, permits and utility payments. Again these are measures that allow municipal staff to concentrate on other important tasks. With the arrival of high-speed Internet in the Chaboillé Region, local administrators have benefited from important time saving applications. These administrators insist that e-mail has made all tasks related to correspondence many times more effective. Links with other municipalities and the provincial Department of Intergovernmental Affairs are convenient because municipal staff get almost instant answers to inquiries, which enables them to provide a better service for ratepayers. With the benefits of high-speed technology, regular mail is no longer the dominant tool it once was in municipal management.