



THE CORPORATION OF THE COUNTY OF DUFFERIN

RFP FOR PROVISION OF PROJECT MANAGEMENT SERVICES

FOR RURAL CONNECTIONS BROADBAND PROGRAM

RFP IT-09-01

Closing date: Thursday, August 6th, 2009
Closing time: 2:00 pm



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SECTION I – INTRODUCTION

Background

The County of Dufferin is inviting proposals from qualified consultants for project management services to assist with the Rural Connections Broadband Program – Intake 3.

The County was successful in their application to the Ontario Ministry of Agriculture, Food and Rural Affairs for funding to assist in improving the local broadband infrastructure in Dufferin County. This second round of funding is to extend the existing high speed internet availability from the first “Rural Connections” program out to areas that were underserved in the first round. These include:

- Township of Mulmur including the villages of Mansfield, Rosemount, Honeywood, Terra Nova and Violet Hill
- Township of Melancthon namely the northern area including the hamlets of Hornings Mills and Corbetton
- Township of Amaranth increasing capacity for local residents
- Township of East Luther Grand Valley is currently serviced in the village of Grand Valley, but additional coverage is required in other areas, namely the hamlets include Colbeck, Monticello
- Township of East Garafraxa where the most western part of the municipality requires more robust services to deal with trees and terrain.

SECTION II - INSTRUCTIONS TO BIDDERS

Purpose

The County of Dufferin is seeking assistance in the management of the Rural Connections Broadband Program – Intake 3. *Connecting Dufferin 2*, as this project is known, will focus on filling in areas of geographical challenges and rounding out areas that could not be reached in the first rural connects program.

The successful proponent will act as a liaison between the County of Dufferin and the other partners involved with this project, including the Small Business Centre of Orangeville. The proponent will be responsible for ensuring that the work is carried out as planned and within the established timeframes. They will also be responsible for reviewing invoices and submitting claims to the Province.

Questions relating to this proposal are to be addressed to the County of Dufferin Treasury Department at 519-941-2816 ext 2803 or via email at treasury@dufferincounty.on.ca.



Oral clarifications DO NOT form part of the RFP document. Any modifications to the document will be in the form of addenda, which will be issued through the County of Dufferin Treasury Department to all proponents and distributed prior to the RFP closing date.

Only an authorized officer of the Respondent's Company shall sign this document.

Errors & Omissions

The County shall not be held liable for any errors or omissions in any part of this RFP. While the County has used considerable efforts to ensure an accurate representation of information in this RFP, the information contained in the RFP is supplied solely as a guideline for Respondents. The information is not guaranteed or warranted to be accurate by the County, nor is it necessarily comprehensive or exhaustive. Nothing in the RFP is intended to relieve the Respondents from forming their own opinions and conclusions with respect to the matters addressed in the RFP.

Schedule of Events

The following schedule of activities is provided for planning purposes only. The Corporation of the County of Dufferin reserves the right to cancel the activity or change the schedule at any time.

RFP Issued	July 20, 2009
Submission Date	August 6, 2009
Award of Assignment	August 14, 2009
RFP Issued for Technical Services	September 2009
Project Implementation	Fall 2009
Construction Commencement	Fall/Winter 2009
Awareness/Outreach Activities	Spring 2010
Project Completion	Summer 2010

Closing Date and Time

All proposals **must be received in the Treasury Department**, County of Dufferin, 51 Zina St., Orangeville, Ontario L9W 1E5 no later than 2:00 p.m. (local time) on August 6th, 2009.

NO ELECTRONIC OR FACSIMILE RESPONSES WILL BE ACCEPTED

The onus unequivocally remains with the Respondent to ensure that couriered bids are delivered to the Treasury Department, by closing time, in accordance with the submission process. Misdirected couriered bids, bids received after the closing date/time/place will not be accepted and will be returned unopened.

Submissions are to conform to the terms and conditions set out herein. Failure to do so



will cause the submission to be rejected. Requests for extensions of closing date or time will NOT be granted and adjustments to bids by telephone or fax will not be considered.

Proposals will be opened in public with representatives from the County present, within one hour of closing in the Hunter Room at 51 Zina St., Orangeville. Prices will NOT be read out. Only the names of the bidders and receipt of the documents will be acknowledged.

Late proposals will not be accepted and will be returned unopened.

Irrevocable

All proposals will be irrevocable for a period of sixty (60) days from the closing date of the RFP.

SECTION III – GENERAL CONDITIONS

Costs Incurred By Respondents

All expenses involved with the preparation and submission of proposals to the County, or any work performed in connection therewith shall be borne by the Respondent. No payment will be made for any proposals received, or for any other effort required of or made by the Respondent for the preparation time or submission of this proposal document.

Indemnification

The Successful Respondent shall indemnify and hold harmless the County, its officers, council members, partners, agents and employees from and against all actions, claims, demands, losses, costs, damages, suits or proceedings whatsoever which may be brought against or made upon the County and against all loss, liability, judgements, claims, suits, demands or expenses which the County may sustain, suffer or be put to resulting from or arising out of the Successful Respondents' failure to exercise reasonable care, skill or diligence or omissions in the performance or rendering of any work or service required hereunder to be performed or rendered by the Successful Respondent, its agents, officials and employees.

Insurance

Without restricting the generality of the section on Indemnification, the Successful Respondent shall obtain, maintain, pay for and provide evidence of insurance coverage, taken out with insurance companies licensed to transact business in the Province of Ontario.



Professional Liability Insurance

A Certificate of Insurance for Professional Liability Insurance coverage with a limit of not less than \$2 million (2,000,000) per occurrence, subject to an annual aggregate of \$2 million (2,000,000), for each member of the firm or partnership who will perform work on behalf of the County prior to commencement of work and at the beginning of each calendar year during the appointment period.

Commercial General Liability Insurance

Commercial General Liability insurance shall include as an Additional Insured, the County with limits of not less than \$2 million (\$2,000,000.00) inclusive per occurrence for bodily and personal injury, death and damage to property including loss of use hereof. Evidence of this insurance shall be provided on a "Certificate of Insurance". The form shall be maintained continuously from either the commencement of the services or the signing of this agreement, whichever is sooner. The policies shall be endorsed to provide the County with not less than 30 days written notice in advance of any cancellation, change or amendment restricting coverage.

Only the Successful Respondent(s) shall be required to provide a Certificate of Insurance listing the County as an additional insured - within 10 working days, after notification of award and prior to the issuance of a purchase order or signed agreement.

Health & Safety

All work performed under this contract must be carried out in accordance with the terms and conditions of the OCCUPATIONAL HEALTH & SAFETY ACT, R.S.O., 1990, C.01. as amended.

Laws and Regulations

The Successful Respondent shall comply with the relevant federal, provincial and municipal statutes, regulations and by-laws pertaining to the work and its performance. The Respondent/Firm shall be responsible for ensuring similar compliance by its suppliers and subcontractors. The contract shall be governed by and interpreted in accordance with the laws of the Province of Ontario.

Conflicts of Interest

The Successful Respondent will be required to indicate whether the Respondent's Firm or any member of the project team is currently employed or retained by a private or public sector client whose interests could be deemed to conflict with those of the County with respect to this project. Prior to accepting the assignment, all firms are required to disclose any potential conflict of interest to Council. If a conflict does exist as referred to above, Council may, at its discretion withhold the assignment from the firm until the



matter is resolved to the satisfaction of Council.

Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)

In accordance with the Municipal Freedom of Information and Protection of Privacy Act, this is to advise that the personal information Respondents provide is being collected under authority of the Municipal Act and will be used exclusively in the selection process. All proposals submitted become the property of the County. Because of MFIPPA, Respondents are reminded to identify in their proposal material any specific scientific, technical, commercial, proprietary, or similar confidential information, the disclosure of which could cause them injury. Complete proposals are not to be identified as confidential. The County of Dufferin reserves the right to discuss any and all proposals, to request additional information from proponents and to accept or reject any and all proposals.

SECTION IV – SCOPE & REQUIREMENTS

Scope of Consultant Work

The Consultant shall provide the necessary project management services to ensure the successful completion of *Connecting Dufferin 2* in a timely fashion. The project must be complete by no later than March 2011. It is the intention of the County to complete this project in 2010. Proponents must have a technical background in the Telco or Wireless industries to be considered for this project.

Please see the attached application made to OMAFRA for *Connecting Dufferin 2*. The application outlines the scope of work related to this project. It should be noted that this application was submitted on the basis of a particular organization doing the work. At this time this organization is unable to commit to the project and the County will thus be doing an RFP for the technical requirements of this application.

Project Requirements

The following tasks are required:

- Start-up meeting with County and partners to discuss issues and proposed work plan.
- Regular progress updates with County staff regarding progress and concerns. Possible presentation to Council if required.
- Assist in the establishment of milestones and timelines.
- Assist in development and evaluation of RFP for technical services required to fulfill application requirements.



- Work closely with successful proponent to ensure equipment installed is as per the technical plan.
- Ensure that milestones and timelines are met.
- Ensure proper permits are obtained where necessary.
- Ensure in-kind contributions are used appropriately.
- Coordinate with SBEC on outreach activities, ensuring all aspects of plan are completed.
- Act as liaison between technical partner, SBEC, residents, lower tier municipalities and County.
- In conjunction with County staff, approve all invoices for payments – confirm work has been completed.
- Assist in claims to OMAFRA.

Proposal Submission and Format

Qualifications

- a) Consultants must provide a one to two page summary of the Proposal, which must be included with the Proposal documents.
- b) Describe fully your company background. Proponents shall supply information that reflects a viable corporate presence in Ontario for at least 24 months prior to the RFP release date. Such a viable corporate presence would be established by the existence of a client base, a functioning sales and support organization, and financial stability.
- c) Describe the nature of your services (describe recent similar contracts of equal or greater magnitude with contact names for reference purposes). Describe the different types of industries for which you provide services. Ensure that you include any experience with previous work undertaken on behalf of Dufferin County.
- d) Ensure that the Reference Information sheet is completed in full. Note that all references may be checked and evaluated on all 'short listed' Proponents.

Description of Proposed Services

- a) Provide an outline detailing your understanding of the RFP and scope of the work to be undertaken and any specific issues deemed relevant to the scope of work.
- b) Provide details of the project team and curriculum vitae on each project team member, plus the proposed hours and disbursements required for each member of the team.



Compensation Arrangements

- a) Proponents shall ensure that the Price Proposal Form in Appendix I is completed in full and executed.
- b) Proponents shall ensure that they detail the estimated hours included in the overall cost and shall show an estimated per diem rate. Proponents shall ensure that travel time, fax, phone, meeting and presentation times are included in their fees. Prices shall be quoted exclusive of GST.

Management Team

Please provide complete biographies of your management team, highlighting years and range of experience relevant to the activities anticipated by this RFP. Proponents shall ensure that their primary contact (project manager) is clearly identified as the single point of contact for the County. The project manager will assist the County in any and all conflict resolutions.

Quantities

Please provide three (3) hard copies of your proposal for the evaluation team. At least one copy must be suitable for copying.

SECTION VI – EVALUATION AND SELECTION

Evaluation Criteria

Proposals will be evaluated on the basis of information provided by the Respondents at the time of submission.

In recognition of the importance of the procedure by which a Respondent may be selected, the following criteria outlines the primary considerations to be used in the evaluation and consequent awarding of this contract (not in any order):

Respondent:

- Technical experience of the firm in similar projects;
- Experience and qualifications of personnel assigned to the project;
- References;

Submission:

- Statement of understanding of the overall scope of the work;
- Quality of the proposal and its responsiveness to, and compliance with, the Corporation's requirements and expectations;



Financial:

- Fees;
- Any financial terms and/or conditions identified by the Respondent;

Other:

- Potential timing conflicts with other on-going or anticipated projects in the Respondent's firm.

Selection of a proposal will be based on all the above criteria and any other relevant information provided by the Respondent.

Selection

The County reserves the right to accept or reject any or all proposals, to negotiate with the selected Respondent(s) and to waive irregularities and omissions, if in so doing the best interests of the County will be served.



APPENDIX I PRICE PROPOSAL FORM

To provide **Project Management Services** for **Connecting Dufferin 2**, according to the requirements of the Request for Proposal.

Part 1 - Total Price Proposal (fixed fee)

I/We hereby offer to provide The County of Dufferin, all services, labour and materials required to complete the assignment described in the Request For Proposal dated, _____, 2009, **including the cost of all related disbursements as described in the RFP**, for the Fixed Fee of:

_____ Dollars

\$ _____ Canadian (excluding GST)

I/We understand that this Price is a fixed fee and is the competitive price to be scored in evaluation of proposals as described in the RFP under "Evaluation". The Fixed Fee is the sum of the prices identified below which included the cost of all related disbursements.

COMPANY NAME: _____

ADDRESS: _____

TELEPHONE: _____ FAX# _____ E-MAIL _____

NAME & POSITION OF PERSON SIGNING: _____

(Please Print)

SIGNATURE: _____

"I have the authority to bind the Corporation/company/partnership"



REFERENCE INFORMATION

Proponents are required to provide three (3) references listing contracts similar to the project described in this RFP and undertaken within the past three (3) years.

- 1) NAME (Company/Government Agency) _____
Contract Description _____
Contact Person _____
Phone Number () _____ Fax Number: _____
Email Address (if available): _____
- 2) NAME (Company/Government Agency) _____
Contract Description _____
Contact Person _____
Phone Number () _____ Fax Number: _____
Email Address (if available): _____
- 3) NAME (Company/Government Agency) _____
Contract Description _____
Contact Person _____
Phone Number () _____ Fax Number: _____
Email Address (if available): _____

The Municipality reserves the right to check additional references and sources to those supplied by the Proponent.

Company/Proponent

Authorized Signature

Date

**NOTE: THIS DOCUMENT MUST BE COMPLETED AND WILL FORM A PART
OF THE SELECTION PROCESS**

Connecting Dufferin 2

Continuing to Bring Broadband Internet Service to Dufferin's Rural Communities

Amaranth Township



Melancthon Township



The County of Dufferin Court House ~ Orangeville



East Luther Grand Valley Township



Mulmur Township



East Garafraxa Township



Town of Orangeville



Town of Shelburne

Rural Connections... The Ontario Municipal Rural Broadband Partnership

Rural Connections Broadband Program Application

General Information Form

*In completing the application submission, refer to the **Rural Connections Broadband Program Application Guideline/Instructions** document.*

Note: Text boxes will expand to accommodate additional narrative.

In addition to the General Information form, applicants must complete the following Schedules:

- Schedule 1 – Business Case***
- Schedule 2 – Gap Analysis***
- Schedule 3 – Technical Plan***
- Schedule 4 – Cost Summary***
- Schedule 5 – Outreach and Awareness Plan***

1. NAME OF LEAD MUNICIPALITY	2. LEAD MUNICIPALITY CONTACT INFORMATION
The County of Dufferin	Name: Aimee Raves Mailing Address: 51 Zina Street Telephone and Fax: p: 519-941-2816 ext.2802 f: 519-941-4565 E-mail address: araves@dufferincounty.on.ca
3. COLLABORATING MUNICIPALITIES	
- The Township of East Luther Grand Valley - The Township of Melancthon - The Township of Mulmur - The Township of Amaranth - The Township of East Garafraxa - The Town of Orangeville - The Town of Shelburne	
4. PROPOSAL TITLE	5. AMOUNT REQUESTED FROM RURAL CONNECTIONS (maximum \$1 million)
Connecting Dufferin 2	\$516,595.71

6. PROPOSAL SYNOPSIS

The County of Dufferin is a vibrant and growing community, which values its heritage, clean environment and embraces its wealth of rural communities. With the Niagara Escarpment running through the County of Dufferin, it has provided us with striking, undulating and forested terrain that makes the area such a wonderful place to live and work. This landscape has also created major challenges to implementing a wireless solution for broadband internet service to all areas within the County of Dufferin.

Connecting Dufferin 2 objectives will be to promote coverage to areas that received limited coverage in the initial phase, and enhance the existing infrastructure. The County of Dufferin, in partnership with Everus Communications, are proud to focus on being a green project with four of the proposed ten new towers being powered by wind and/or solar power.

The County of Dufferin is grateful for the funding from the initial Rural Connections project and is excited to be a partner with the Province once again. By providing more coverage, the economic opportunities will abound, and residents will sense a higher quality of life with access to limitless resources and information. The County of Dufferin is committed to bringing a wide range of broadband solutions to the various communities, and embraces the benefits of this project.

7. TOTAL PROJECT COSTS This chart should be filled in <u>after</u> completing Schedule 4 – Cost Summary.	Eligible Expense (\$)
1. Consulting Fees	
2. Design Engineering	
3. Infrastructure (existing and new) – vertical real estate, equipment, network management software	1,722,092.00
4. Project Management (max. 10% of eligible costs)	50,000.00
5. Outreach/Awareness and Public Sector Access (required to allocate 5% of eligible costs to this component)	50,000.00
6. Miscellaneous - surety costs, plaque expense	100.00
7. Other	
Total Estimated Eligible Costs (A)	1,822,192

8. SOURCES OF FUNDING AND PARTNERS

Insert value for anticipated contributions - cash and in-kind - to cover the Total Estimated Eligible Costs (A) identified in the chart above.

SOURCES OF PROPOSED FUNDING	CASH CONTRIBUTION	ESTIMATED VALUE OF IN-KIND CONTRIBUTIONS	TOTAL PROJECTED FUNDING CONTRIBUTION
LEAD APPLICANT MUNICIPALITY	\$ 0	\$ 429,000.00	\$ 429,000.00
PARTNERS Internet Service Provider(s)	\$ 789,000.58	\$ 87,595.71	\$ 876,596.29
OTHER PRIVATE SOURCES	\$	\$	\$
SUB-TOTALS	\$ 789,000.58	\$ 516,595.71	\$ 1,305,596.29
Funding Requested from Rural Connections (1/3 of project total to a maximum of \$1 million)			+ \$516,595.71
Total Eligible Project Costs (B) – must equal (A) from Chart 7 above			\$1,822,192

9. PREVIOUS BROADBAND FUNDING

The County of Dufferin was fortunate enough to have been selected in October 2007, for the first round of projects.

The project was called *Connecting Dufferin* and one of the main focuses of the project was to build the foundations for future expansion and growth for the residents of the area.

Dufferin in partnership with Bell Alliant and Everus Communications, along with all partner municipalities helped design and create a \$3.6 million improvement to wired and wireless solutions.

This new request is the natural extension of the original project, with the hopes of filling in areas of geographical challenges and rounding out areas that could not be reached in the first rural connects programs.

Included in this application are the two major applications and reports from the first Rural connects program.

Appendix 1 – Schedule H final report is also included as reference.

CONFIDENTIALITY, CONSENT AND CERTIFICATION

Confidentiality

Applications and supporting material submitted to the Ministry of Agriculture, Food and Rural Affairs will be subject to the *Freedom of Information and Protection of Privacy Act* (Ontario). Any information submitted in confidence should be clearly marked “CONFIDENTIAL” by the applicant. Inquiries about confidentiality should be directed to the Ministry of Agriculture, Food and Rural Affairs.

Consent

Successful partners/applicants consent to having their names, funding amounts and short summaries of their projects and results made available to the public.

Certification

I hereby certify to the Province of Ontario that the application and supporting documentation are true and complete in all respects.

Signature of Authorized Representative of Lead Municipality:

Name (print): _____

Title: _____

Signature: _____

Date: _____

Schedule 1 – Business Case

1.1 BUSINESS RATIONALE

Please see attached Schedule 1 for the complete business case.

1.2 ESTIMATED TIMELINES FOR PROJECT MILESTONES

Based on government fiscal year:

Q1	= April - June
Q2	= July - September
Q3	= October - December
Q4	= January - March

MILESTONE DESCRIPTION	08 Q1	08 Q2	08 Q3	08 Q4	09 Q1	09 Q2	09 Q3	09 Q4	10 Q1	10 Q2	10 Q3	10 Q4	11 Q1	11 Q2	11 Q3	11 Q4
Business Case, Technical Plans, RFP					X											
Engineering/Design					X											
Project Implementation					X	X										
Construction					X	X	X									
Awareness/Outreach Activities							X	X	X							
Project Completion									X							
Final Report									X							

SCHEDULE 2 – GAP ANALYSIS

2.1 INSTRUCTIONS

Download the appropriate MAP and Excel Data File for your project area(s) from: www.ontario.ca/rural

Attach one (1) copy of the completed spreadsheet to each of the three application copies to be submitted. Also, include an electronic Excel version (not pdf) with your electronic application.

2.2 SUMMARY DEMOGRAPHIC DESCRIPTION OF AREA

Number of hexes in project scope	Total population in hexes	Population served	Population un-served	Population TO BE SERVED by project
11.5	5598	2767	2831 residents	2831 residents
			160 Small and Medium Enterprises	140 + Small and Medium Enterprises
			Name and Location of Broader Public Sector Organizations • Dufferin County Museum & Archives • Township of Melancthon Town Hall and Operations Centre • Township of Mulmur Town Hall and Operations Centre • Melancthon Fire Department • Horning's Mills Community Centre • Mansfield Community Centre • Weather Station at Airport & Hwy. 89	# of Broader Public Sector Organizations (list) • Dufferin County Museum & Archives • Township of Melancthon Town Hall and Operations Centre • Township of Mulmur Town Hall and Operations Centre • Melancthon Fire Department • Horning's Mills Community Centre • Mansfield Community Centre • Weather Station at Airport & Hwy. 89

SCHEDULE 3 – TECHNICAL PLAN

3.1 DESCRIPTION OF PROPOSED NETWORK

The specific objectives of this project include:

- providing reliable, affordable broadband connectivity to residences, farms, businesses and public sector institutions that are located in currently un-served and underserved rural areas of The County, targeting completion by the end of 2009;
- providing seamless connectivity and a range of Internet and telecommunication services to households, institutions and businesses in rural areas of the County and the provision of backbone infrastructure connected to the national telecommunication network;
- providing infrastructure and services that are scalable in support of current and evolving applications;
- overcoming the major problem of providing broadband connectivity in our rural community by demonstrating that an innovative P3 (“Private Public Partnership”) approach can be used to extend broadband to areas where the low population density contributes to the high cost of building infrastructure to provide affordable and reliable services;
- open access for ISP providers through reselling of the service, space on towers, and other IP packet services;
- green theme, several “off grid” renewable energy power plants.

3.2 NETWORK CONFIGURATION

See attached Schedule 3 for a complete description

3.3 NETWORK CHARACTERISTICS

See attached Schedule 3 for a complete description

3.4 EQUIPMENT DETAILS

See attached Dufferin RC2 - Schedule 3.4 Equipment Details (Excel documents) for a complete description

3.5 CONSTRUCTION SCHEDULE

Below is a sample table to illustrate some of the activities.

Activity	Start Date	Completion Date
Site Selection	March 2009	July 2009
Equipment Ordering	April 2009	September 2009
Site Preparation	April 2009	October 2009
Pad Construction	April 2009	October 2009
Electronics Installation	April 2009	December 2009
Other		

3.6 RISK FACTORS

Identify any potential risks and mitigation paths associated with the construction and technical aspects of the project.

Risk Item	Possibility of occurring	Impact to project	Mitigation Path
Granting of Building Permits from NEC	Medium	Medium	Low profile exempt towers within 45ft in height. Address visual impact through tree planting and low impact locations
Consumer RF fears	Low	Low	Consumer education and information meetings.
Equipment availability delays	Low	Medium	Alternate suppliers available for proposed products
Unable to secure primary or secondary tower sites	Low	Medium	Move to backup sites. No mitigative measure if backup sites are not available. Would require communication with stakeholders affected.

SCHEDULE 4 – COST SUMMARY

4.1 COST SUMMARY

Download the appropriate Excel spreadsheet Cost Summary from: www.ontario.ca/rural

Complete the Cost Summary identifying the proposed project costs. Note the cells coloured red represent ineligible costs. These cells cannot be changed.

SUBMISSION INSTRUCTIONS

A printed copy of the spreadsheet must accompany the application. Additionally, attach an electronic copy in the original Excel format (not pdf) to the electronic application.

SCHEDULE 5 – OUTREACH/AWARENESS AND PUBLIC SECTOR ACCESS PLAN

5.1 SMALL AND MEDIUM ENTERPRISE OUTREACH AND AWARENESS PLAN

Introduction

A number of creative and varied approaches will be utilized to promote the benefits of broadband access to Dufferin area citizens and businesses. The goal of these activities will be to build on the strong foundation of awareness achieved in the initial Connecting Dufferin project. By providing affordable, accessible and efficient broadband access throughout this rural area, community involvement, business development and diversity, and employment growth are all stimulated.

The outreach plan, including the organization and delivery of events, the development of marketing tools, facility rentals required to support the outreach activities, and project summary reporting will be completed by June 2010. It is expected that the majority of activities related to the outreach portion of the project will occur in the latter part of the project as the impact of these exercises will be much greater if the marketing related functions are completed in the post-build phase. As a result, some outreach related activities will commence in the third quarter (October – December 2009) and activities will escalate in frequency through until late April 2010.

Outreach activities to stimulate interest in the benefits of broadband participation and increase subsequent uptake of access will be delivered by utilizing a variety of techniques geared to reaching a wide and diverse audience.

Outreach Management and Plan

Collaboration with the SBEC for the completion of the Outreach and Awareness Building component will be conducted through the Orangeville & Area SBEC and the key contact for this component will be Coordinator, Ruth Phillips.

The SBEC office will manage, organize, coordinate and ensure the delivery of the following outreach components:

- design, production and distribution of required marketing materials, including brochures, mail inserts and promotional kits,
- distribution of e-business resource materials and kits,
- completion of advertisements, press releases and articles in local newspapers to assist in keeping the project a focus of attention,
- coordination, planning, registration and delivery of broadband specific workshops and general information town hall meetings throughout the County of Dufferin by building on partnerships and collaborative approaches already established by the SBEC Office,
- ensure the inclusion of information on the broadband project in all SBEC-delivered workshops and special events throughout the County,
- organize materials, give-aways and manpower to launch/promote project at Chamber of Commerce Home and Lifestyle Show in October as well as Lions Home and Garden show in April,
- promote benefits of broadband usage, e-business tools and outreach for participation in the various workshops through database of existing SBEC contacts and small business owners,
- field general enquiries from public and provide information, appropriate referrals.

5.2 SMALL AND MEDIUM ENTERPRISE OUTREACH AND AWARENESS PLAN
DELIVERABLES, TIMELINES AND BUDGET

Activity	Deliverables	Start and Completion Dates	Estimated Cost
1. General Information Town Hall Sessions	3 sessions will be held (Orangeville, Shelburne, Grand Valley) –Includes meetings, bookings, preparation and delivery	October 2009 – February 2010	\$2,500
2 Sector/Topic Specific Workshops	Approximately 6-8 sessions will be held within Dufferin County that focus on such topics as web design, e-commerce, web 2.0 and/or address broadband utilization as it applies to specific sector (ex. agriculture, artisans, tourism, home-based businesses) – includes preparation, promotion, delivery & presenter, handouts, and facility requirements for 8 sessions	October 2009 – April 2010	\$8,000
3 Trade Show Participation	Participation in 2 local tradeshow (GDACC and Lions) with outreach to approx. 8-10,000 total visitors expected. Includes registration, related handouts, promotional materials and manpower for 6 days	October 2009 April 2010	\$8,000
4			\$
5			\$
		Total Estimated Budget	\$18,500
5.3 PUBLIC OUTREACH AND AWARENESS PLAN			

Outreach activities planned to support local awareness building and uptake by Small and Medium Enterprises include:

General Information Town Hall Sessions - General Information Sessions will be held in three towns within the County of Dufferin (Orangeville, Shelburne and Grand Valley) in an effort to reach as many members of the general public as possible and with the goal of introducing and generating interest in the project generally as well as stimulating ideas for business and personal implementation and usage of the broadband. These meetings will outline the features and benefits of broadband and provide an endorsement of utilization through the involvement of a locally elected official. The General Information Sessions will be conducted towards the end of the build-out phase and during the initial part of the outreach plan.

Sector and Topic Specific/Targeted Workshops and Demonstrations – Immediately following the completion of broadband infrastructure requirements, and during the post-build phase, considerable effort will be made to deliver sector and topic specific workshops that will serve to provide outreach, information and benefits to targeted populations and business sectors. These workshops, through presentation and demonstration, will feature solutions, resources and time saving strategies that can be achieved through implementation of broadband. Building on the successes achieved with these workshops in the initial project, sector-specific workshops will include sessions targeted to agriculture, arts, tourism, home-based service related businesses, and existing rural businesses in general. The targeted sessions will also feature specific workshops on such topics as introduction to web design, conducting business on the internet, and on utilizing Web 2.0 tools to effectively establish an online presence and market effectively. With the goal of stimulating new interest while also expanding existing utilization, these sessions will be designed to appeal to both new and existing broadband users, and especially small business owners.

Trade Show Participation – Outreach to a large number of community based businesses, residents and potential users will be completed through participation in relevant community- based trade shows. Two major relevant trade shows are held within the community each year and participation in both is anticipated.

Promotion through Existing Community Events and Services – Promotion of the Connecting Dufferin project and the benefits of broadband access will be completed by aggressively participating in various community based events and festivals. Outreach to communities at small, localized events was very well received during the first intake of the project, and the goal will be to build on this outreach method in the second intake. Partnering with local community organizations will create affordable opportunities to conduct outreach and general information will be distributed to an even wider and more varied audience. Activities would include brief promotional updates on the project at all SBEC business related workshops and functions, Chamber of Commerce events, numerous rural community-based events and festivals, etc.

5.4 PUBLIC OUTREACH AND AWARENESS PLAN DELIVERABLES, TIMELINES AND BUDGET			
Activity	Deliverables	Start and Completion Dates	Estimated Cost
1 Community Events & Services	Planning, preparation for and participation in approximately 10-12 business related, rural community based events and/or festivals including give-aways	June 2009 – April 2010	\$6,000
2. Media	Includes advertising costs - design, artwork and ad space (approx. 10) - for upcoming events and workshops to distribution population of min. 20,000 as well as press releases and articles on the project roll-out.	October 2009 – April 2010	\$4,600
3 Mailings/Flyers	Design, information preparation and printing required for flyers, postcard style mailings to rural based businesses and farms throughout Dufferin County advertising upcoming events/activities. Also includes printing costs associated with handouts/give-aways/kits (est. 25,000)	October 2009 – March 2010	\$8,900
4			\$
5			\$
		Total Estimated Budget	\$19,500

5.5 PUBLIC SECTOR ORGANIZATIONS

E Business Specialist - Outreach and Awareness Building activities, particularly workshops and events, will focus on embracing, implementing and utilizing e-business solutions that create increased business opportunities and prosperity through broadband implementation. Workshops and events will feature speakers who have expertise in a variety of e-business issues and provide attendees with access to expert information.

Email Outreach - SMEs will be targeted for participation in all awareness building activities through email outreach. The ever growing SBEC database of existing, developing and emerging small business owners will be utilized to help promote outreach activities and to share general information on the broadband project. Through partnership with local associations such as the Dufferin County Manufacturers Association, the Greater Dufferin Chamber of Commerce, the Hills of Headwaters Tourism Association, Business Improvement Areas, etc. an even greater email campaign will be launched to deliver outreach information in an affordable manner.

Surveying – Surveying of potential target groups and sectors will be completed to identify needs, barriers to uptake, readiness to embrace e-business solutions and will assist in developing targeted outreach materials as well as topic specific training opportunities in the post-launch phase. Surveying will also be completed, specifically towards the end of the post-launch phase, to obtain testimonials and provide evidence of the impact that broadband implementation can have in a rural community.

Media – A combination of paid advertising, press releases, and articles will be utilized to appeal to and generate interest and uptake from the general public of Dufferin. Four local community newspapers will be utilized in this media campaign. Media related information will focus on the provision of general information on the project as well as topic and sector-specific information on events related to the outreach component.

Mailings/Flyers - Flyers and post card style mailings will be created and distributed to businesses and farms throughout the County of Dufferin to promote the benefits of implementation and utilization of broadband. These mailings will highlight features and benefits of broadband, details on upcoming information sessions and workshops and will provide contact/registration information.

Resource Kits - Resource kits that provide information on accessing broadband and provide ideas and supports available to overcome barriers to adopting e-business solutions will be distributed throughout the community and targeted to small and medium sized enterprises by the Orangeville & Area SBEC. These kits will include information on how to contact relevant local broadband providers and also feature the "How You Can Profit from E-Business" book created by the Government of Ontario which provides an excellent introduction to e—business issues.

5.6 PUBLIC ACCESS POINT STRATEGY

Outreach activities will improve access to broadband connectivity and stimulate the use and expansion of e-business solutions among entrepreneurs and small and medium sized businesses. Specifically, the Outreach and Awareness Building activities will:

- Improve Dufferin area SMEs ability to compete for opportunities by adopting e-business solutions such as the development of a web-based presence, implementation of e-commerce and other strategies that make their businesses more comparable to larger competitors;
- Enable entrepreneurs and small and medium sized businesses to distribute information and business related updates to a wider audience and more quickly and affordably;
- Improve the ability of rural businesses to provide timely and accurate customer service by utilizing time and cost saving tools that will improve customer relations;
- Enable local SMEs to utilize the tools that they require to reach new, broader markets and build name recognition while also providing them with the tools to improve and expand their current marketing strategies, diversify business opportunities and increase sales;
- Provide SMEs with access to more information and resources about products, services and suppliers that could assist them to generate savings;
- Create easier, faster and better access to government related information, supports and services.

Partnerships established through new and existing business and community organization relationships will be key to the success of the outreach activities listed above. Partnerships already in place with the SBEC will be further developed to assist with the implementation and roll out of the Outreach Plan. These partnerships include, but are not limited to:

The Greater Dufferin Area Chamber of Commerce
 Hills of Headwaters Tourism Association
 Orangeville, Shelburne and Grand Valley Business Improvement Area (BIA) Associations
 Centre for Business and Economic Development – local Community Futures organization
 Dufferin Federation of Agriculture
 Municipal offices and Economic Development leads within relevant municipalities

As the post-build outreach and promotion is completed, there is an excellent opportunity to continue working with the SBEC office to deliver a number of e-business training services that will provide small and medium sized businesses with the information and training they require to develop the necessary internet skills to compete more successfully in their businesses. Preliminary ideas for workshop and training sessions include topics such as Internet Security, distributing Electronic Newsletters, Online Business Research, Web Site Planning and Evaluation, On-line Promotion, Selling on the Internet, etc.

5.7 PUBLIC SECTOR ACCESS DELIVERABLES, TIMELINES AND BUDGET			
Activity	Deliverables	Start and Completion Dates	Estimated Cost
1 Resource Kits	Distribution of kits at seminars and events to estimated 250 business owners	October 2009 – April 2010	\$included in SME
2 Email Outreach	Outreach for participation in events and workshops utilizing SBEC database and complimentary association databases (est. 3500 Dufferin residents and business owners). Includes email/newsletter design	October 2009 – April 2010	\$500
3 Surveying	Outreach via email and personal contact to secure testimonials and impact statements for Rural Connections project. Includes project summary report to SBEC	May – June 2010	\$1,500
4 Outreach Management	Project Management Services as detailed under Outreach Management and Plan	April 2009 – April 2010	\$10,000
5			\$
		Total Estimated Budget	\$12,000

5.8 PERFORMANCE MEASURES	Target #	Comments
Number of public outreach activities undertaken	32	
Number of participants engaged	2000+	
Number of business associations engaged	250+	Revisiting RC1 businesses
Number of Public Sector Organizations connected	15	
Number of Public Access Points	20	

Schedule 1 – Business Case

Since the late 1990's the County of Dufferin has understood the importance of having a great infrastructure that could grow with the needs of the residents of Dufferin and all the diverse small businesses spread out over this geographically disperse area.

Connecting Dufferin 2 is about extending the existing high speed internet availability from the first "Rural Connections" (*Connecting Dufferin*) program out to the rural areas for residents, small businesses and farms to use. As the urban areas of the County are already serviced, it is critical to extend that infrastructure to the rural areas.

A very important part of the project is to lead by example when it comes to promoting "green" initiatives. The county has always encouraged the residents to recycle and compost and be proactive whenever possible. The County itself has long been a big proponent of this, with this philosophy *Connecting Dufferin 2* is undertaken with these goals in-mind.

This project is to include four towers that are completely powered by solar and wind. These towers will be highly visible to the public highlighting the County's commitment to a greener society.

Dufferin County needs projects like "Rural Connects" to provide seed money to help vendors realize a return on investment. Without this kind of funding, many companies would not look at servicing some of the harder to reach areas of Dufferin. The social/economic costs of being left out of the information age in rural Dufferin could be adverse.

Strong partnerships are critical in delivering stable services to the residents of Dufferin. Everus Communications has grown to provide the services not only to Dufferin but to Grey County and Wellington. This ensures a strong regional presence with affordable access to connectivity.

Dufferin's first "Rural Connects" project helped build strong relationships with Bell Alliant 519 and Everus Communications Inc. The County is looking forward to building on these relationships moving forward.

Dufferin County's Readiness

With the County successfully completing the first round of the Rural Connects program, and the highly visible nature of the first project, Dufferin is ready to move forward with this round allowing residents that were not reached to have an opportunity to receive access that has not be available in these areas.

As stated in the technical plan *Schedule 3, Connecting Dufferin 2* project will leverage where *Connecting Dufferin* left off in December 2008. The project includes the following components:

- Leveraging the existing fibre from RC1 to help extend a strong foundation to allow a cost effective infrastructure that can grow today and tomorrow.
- Leveraging new fibre infrastructures to allow existing services to be upgraded from wireless to fiber-optic to increase performance and reliability.

- Upgrading an existing tower in Amaranth (Blacks tower) with fibre to provide greater bandwidth to customers throughout the County. This site will all also act as a backhaul location.
- 10 new tower deployments, 4 being backhaul and distribution and 6 being small points of presence that will service the hilly valley's of Mulmur Township.
- Increase headroom on the network for future services.

Dufferin's Commitment

Internet access has long been a desired commodity from a public sector standpoint; every economic development report has listed internet access as a top 3 requirement for improving Dufferin economy and lifestyle values.

Dufferin County's residents are very active in championing for these services either to help their small business requirements or to provide the tools that their children will require.

Dufferin County is acutely aware that connectivity can provide new ways for residents to work from home, thereby spending more time in the community which has huge economic benefits for local area merchants.

Financial Readiness

Dufferin's business and technical plan hinges on a strong financial solution. Dufferin County in partnership with Everus Communications Inc. have built a strong plan. Having utilized Everus as a partner in the first Rural Connects program, the County feels very comfortable with working with them again.

For the purposes of this application the County is requesting \$516,595.70, however , the value of the work to be completed will be over \$1.9 million. Dufferin and Everus believe this shows our readiness and financial commitment to the project, demonstrating the strong commitment and willingness from both parties to provide for future growth and demand.

The total value of this submission is \$1,822,192 with the County and Everus committing \$429,000 and \$87,595.71 respectively of in-kind contributions. Everus is also committing \$789,000.58 of cash in relation to this submission. However, it is their intention to assign an additional \$412,753.42 as they show their commitment to investing in the future needs of Dufferin County.

Provincial Funding breakdown

The provincial funding is broken out into three distinct areas; Infrastructure, Outreach and Consulting.

Infrastructure costs of \$416,595.70 are required to complete the described project. Please see Appendix 2 – Infrastructure Breakdown cost spreadsheet for a full explanation. It should also be noted that this spreadsheet will also act as the budget guideline for each part of the infrastructure roll out.

The successful Outreach program of the first Rural connects program would require \$50,000 to provide education/training and outreach activities. Please refer to Schedule 5 for a complete breakdown of the activities.

The remaining amount of money would be utilized to hire a consultant to provide Dufferin County and its partners with the support required to run a project of this magnitude. Having completed the first Rural connects project, the realization that the more support available the stronger the results.

Gap Areas to Be Covered:

The County of Dufferin consists of 8 municipalities; the urban centre's being Orangeville, Shelburne and Grand Valley. These areas are well serviced, but the rest of the County, primarily rural areas and small hamlets, are left with no access to high speed beyond dial-up or satellite coverage. These areas are:

- Township of Mulmur including the villages of Mansfield, Rosemount, Honeywood , Terra Nova and Violet Hill
- Township of Melancthon namely the northern area including the hamlets of Hornings Mills and Corbetton
- Township of Amaranth increasing capacity for local residents
- Township of East Luther Grand Valley is currently serviced in the village of Grand Valley, but additional coverage is required in other areas, namely the hamlets include Colbeck, Monticello
- Township of East Garafraxa where the most western part of the municipality requires more robust services to deal with trees and terrain.

Hexes overlapping other Municipalities

The County of Dufferin is aware of that some Hexes looking to be serviced by our Connecting Dufferin 2 project over lap into different municipalities. Depending on the project outcome different operations are available.

Wellington County overlap

Dufferin's current proposal is looking at servicing Hexes ON3031, ON2929, ON2928 and ON2927 which overlap into Wellington County. For a coverage map see Appendix 2. Wellington is also in the process of submitting an application for their share of these hexes. Our partner for this project, Everus, will also be working with Wellington if their application is successful. In order to ensure adequate coverage of the designated areas and avoid duplications upon approval of both applications Everus will pro-rate the costs for both projects, while still servicing these areas if one application were not to be successful.

Grey County Overlap

Overlapping hexes into Grey County; ON3876, ON3877, ON3767 and ON3659 represent a small area. Grey County has already been approved for RC2, Their vendor for the project is again Everus Communications Inc. If Dufferin County is successful, the appropriate cost scaling has already been built in to the project plan. For coverage map refer to Appendix 2.

Physical Assets and Resources available to this project:

These are assets not listed as in-kind, but tools that our partners have access to. Municipalities within the County of Dufferin have made these available to help the project come to fruition.

The County of Dufferin:

- Rights of way on County Roads
- Access to County buildings for infrastructure placement
- Access to existing fibre network within the town of Orangeville and Dufferin County

Orangeville:

- The Town and the County already own and manage a 16km fibre network with 44 strands available within town limits used as a WAN for Town and County municipal business. The 44 strands could be utilized for this project.
- The Town has 2 water towers available for access.
- Rights of way on Town roads.

Shelburne:

- Rights of way on Town roads
- Community Centre access for equipment

Township of Mulmur:

- Access to gravel pit – Violet Hill (known high point)
- Water tower and land available in Mansfield
- Rights of way on Township roads
- Town office and works yard in Terra Nova for equipment (known high point)
- Arena in Honeywood

Township of Melancthon:

- Rights of way on Township roads
- Town office and works yard on Hwy. 10

Township of East Luther Grand Valley:

- Water Tower in Grand Valley
- Rights of way on township roads

Township of East Garafraxa:

- Rights of way on Township roads

Township of Amaranth:

- Rights of way on Township roads

Other Available Resources:

- Deputy Treasurer, Aimee Raves and IT Support Supervisor, Kurtis Krepps are available from the County of Dufferin for Project Management, design, build and implementation as well as Project Coordination, liaison with contractors and vendors, etc
- Public Works trucks and crew from each municipality to assist in construction
- Office space at County building (51 Zina Street) to accommodate contractors involved in design/build
- The County of Dufferin administration staff to assist with admin support to project, creating and disseminating press releases about the project
- Orangeville Hydro will be able to offer linesmen and trucks for any fibre installations as required.

List additional hexes below:

Schedule 3 - Technical Plan

3.1 Description of Proposed Network

The specific objectives of this project include:

- providing reliable, affordable broadband connectivity to residences, farms, businesses and public sector institutions that are located in currently un-served and underserved rural areas of The County, targeting completion by the end of 2009;
- providing seamless connectivity and a range of Internet and telecommunication services to households, institutions and businesses in rural areas of the County and the provision of backbone infrastructure connected to the national telecommunication network;
- providing infrastructure and services that are scalable in support of current and evolving applications;
- overcoming the major problem of providing broadband connectivity in our rural community by demonstrating that an innovative P3 (“Private Public Partnership”) approach can be used to extend broadband to areas where the low population density contributes to the high cost of building infrastructure to provide affordable and reliable services;
- open access for ISP providers through reselling of the service, space on towers, and other IP packet services.
- Green theme, several “off grid” renewable energy power plants.

3.2 Network Configuration

The below chart summarizes the various last mile delivery systems, their throughput contention ratios:

Short name	Frequency	Manufact	Model	Mb/s	# SU/hsfx
900 AP	900MHz	Trango	M900S-AP	3	15
2.4 AP	2.4GHz	Trango	M2400S-AP	5	20
5.x AP	5.3 to 5.8GHz	Trango	M5830S-AP-60	10	40
WiMax AP	3.5GHz	Vcom	VistaMAX obr	22	60
PtP	5.3 to 5.8	Trango	T-link-45	45	1

PRODUCT	ADVANTAGES
Trango M5830S AP-60 and SUs	The Trango platform has been operating within the network for over five years. Their hardy performance with exclusive “Smart Polling” features, combined with low cost, has enabled our subscribers to enjoy affordable 3Mb/s accounts while the wireless industry standard is still at 400Kb/s. This platform has also enabled Everus to provide VoIP for the past four years. AP and SU Features Software antenna polarity switching, integrated and external antenna (great for rescuing a problematic link and keep a subscriber), Smart Polling, QoS, CIR, MIR, ARQ, channel tuning per MHz, SU management from AP, NOC systems compatible (snmp, mibs, traps for monitoring and provisioning), dual band 5.3GHz UNII and 5.8GHz ISM.
Trango M2400S AP and SUs	Interference Mitigation is one of the key factors when considering hardware deployment in the license-exempt bands. The Trango M2400S-AP is unique with its frequency plan. Because it uses only 10Mhz per channel, it provides 8 non-overlapping channels and offers channels closer to the edge of the band which are typically clear. It delivers 4 watts of power and has exceeded our expectations in both penetration of trees and ruggedness. It has proven very forgiving even in NLOS situations. AP and SU Features Software antenna polarity switching, integrated and external antenna (great for rescuing a problematic link and keep a subscriber), Smart Polling, QoS, CIR, MIR, ARQ, channel tuning per MHz, SU management from AP, NOC systems compatible (snmp, mibs, traps for monitoring and provisioning)
Trango M900S AP and SUs	This platform has been the first 900MHz system in our network that delivered what it promised. While products such as Tranzeo, Ubiquiti are 2.4 radios converted to 900, others lack throughput or penetration abilities. It is an efficient, rugged and reliable workhorse that delivers maximum bandwidth to each subscriber without sacrificing quality. AP and SU Features Software antenna polarity switching, integrated and external antenna (great for rescuing a problematic link and keep a subscriber), Smart Polling, QoS, CIR, MIR, ARQ, channel tuning per MHz, SU management from AP, NOC systems compatible (snmp, mibs, traps for monitoring and provisioning)

PRODUCT	ADVANTAGES
Trango GIGA 18 Link	This recently released PtP bridge operates in the Industry Canada licensed 18GHz spectrum. The system simultaneously broadcast on one frequency and receives on another – thus a true full duplex system (FDD) delivering 95Mb/s FD at the Ethernet port. An optional software key enables this throughput to be increased to 282Mb/s. Antenna options include a 2, 3, and 4ft Radio Waves dish. Latency is less than 150 micro seconds (0.15ms). In addition to data services, these bridges have 8 T1's built into the platform. A new APEX model provides auto modulation shifting and up to 375Mb/s FD (or 750Mb/s aggregate).
Trango P5055M-23 or EXT	This PtP bridge is a tri-band radio, and can utilize any of the three UNII and ISM 5GHz bands. It is the next generation of the Trango Atlas 5010 series and offers OFDM technology with 6, 12, 18, 24, 36, 48 and 54Mb/s modulation rates. Latency is less than 5ms. The radios are easy to deploy and have a range of up to 40 miles. We currently have 12 Trango P5055M-EXT in our network, and are thrilled at their ability to maintain a stable 54Mb/s (45Mb/s at Ethernet) rate, even over 25km. During periods of extreme fading or signal degradation, the link automatically modulates to the next scheme, thus maintaining an exceptional level of reliability. Features include auto power leveling and FEC, ARQ, and dual polarity antennas. Note: though the spec sheets are not yet released, the specs for the Atlas 5010 are very similar to the P5055M.
Redline RedCONNEX 80i	Redline is an industry leader and first to offer an OFDM platform through their proven and robust AN-50. The 80i is the next generation of the AN-50. It offers BPSK to 64QAM modulation rates with 10, 20 and 40MHz channel bandwidth options; thus delivering up to 95Mb/s at the Ethernet. It is a dual band offering, 5.4 and 5.8GHz UNII and ISM bands. It has the lowest latency in its class (<2ms), and is known for a robust reliable performance and strong ability to mitigate interference. A software key can transform the hardware from a PtP system to a PtMP system.
Vecima OBR3500	This is a Certified WiMAX platform will continue to evolve. Vecima has been a strong supporter of the WiMAX forum, and has been instrumental in the development. This is a 3.5GHz licensed solution. Over 50 systems have been deployed through Everus in Ontario, all of which are in operation.

The network is designed to enhance the existing infrastructure to deliver bandwidth to the target areas. Capacity has been increased through the addition of an Internet egress point at the existing Blacks Corners tower site. The proposed connection is delivered via fibre media from Blacks Corners to Shelburne, to Orangeville (CIK) and through Hydro One to 151 Front Street.

Backhaul capacity has been increased, specifically to the remaining service GAPS. Wireless Point to Point with OSPF switching, 24 hours of backup power are part of the “core”. The core

provides bandwidth to Micro cells, positioned to bring low cost coverage to the underserved and challenging areas.

Both the core sites and micro cells provide access through a variety of Access Points (see above chart) determined ideal for the specific target areas.

The “core” network is redundant through its wireless Point to Point connections into Wellington to the South, and to Grey to the North. The network and redundancy is designed to compliment Dufferin, Grey and Wellington projects.

3.3 Network Characteristics

QoS and VPN

Many customers use their connection for VPN connections. This allows a person to work from home while securely passing sensitive information back and forth from their office or place of employment. The 3Com routers, switches and IPS devices allow us to prioritize traffic based on ports, protocols and IP addresses. This means from one end of our network to the other all VPN traffic will be prioritized.

The network is designed with the future in mind. Mobile services, VoIP, online gaming, video on demand, IP TV are some of the common protocols gaining popularity on the Internet. VoIP is limited by networks, not the technology. The network is designed to incorporate these services through several levels of QoS. In order for QoS to be viable, it must be maintained throughout the network – not just at one location of the network. The new 3Com routing and switching platform offers QoS throughout the network. Enabling priority on our Access Point is standard with our VoIP solution.

In addition to QoS and low latency, there are several other levels of traffic management to ensure consistency and reliability. 3Com MSR series routers will provision through PPPoE, and assign an IP to the subscriber through our centrally located radius server. Toggles can enable or disable features such as FTP or Bit-torrent. Bandwidth provisioning is automated to the access routers through our NOC, including pre-selected packages. Traffic is also prioritized based on what it is. Protocols such as Bit-torrent, Peer to Peer (P2P) and FTP are given lower priority. Due to this if there happens to be some congestion created by bursting traffic, regular web browsing, email and voice traffic will continue without interruption. The lower priority traffic will be throttled instead. These are the principles of our FAP (Fair Access Policy).

Combined solution essential for success

The wireless network in the current service area is comprised of various technologies that use various spectrum ranges and frequencies. This diversity allows our wireless designs to leverage the strengths associated with each spectrum and hardware platform, enabling us to engineer wireless networks for specific geographic profiles. It is particularly critical in Dufferin County to apply the same approach.

We propose both the license-exempt bands and Industry Canada licensed bands. Spectrum-efficient hardware selection is an Everus policy. A combination of hardware capable of multiple and various spectrum ranges mitigates the risk of interference.

Fully equipped to provide licensed solutions

Two types of licenses are commonly designated for broadband fixed wireless. The first deals with bridging. The license is designated for a specific location with a fixed bearing. The Trango GIGA 18 link 18GHz is readily available through Industry Canada, and the license process typically can be completed within two months. An annual fee is associated with these links. Fees vary depending on bandwidth and geography. Typical fees are from \$600 to \$2400/yr.

The second license is for geographical areas. The most common frequency is the 3.5GHz fixed wireless band.

Typically licenses are expensive and difficult to obtain. 3.5GHz license for Dufferin is in place.

Software

Nagios, which uses ICMP, to the 3Com Enterprise Management Suite (EMS) to Microsoft Great Plains and CRM all of this software assists us to maximize network and business efficiency. The Network Management System (NMS) and Operations Support System (OSS) are being customized to achieve this same goal. With the support from 3Com engineers these systems continue to be integrated to allow smooth customer provisioning, service quality management and accurate invoicing and collections. This forms the heart of our FAB (Fulfillment, Assurance and Billing) and provides us with the tools for total customer support from initial contact, to installation to meeting their required needs.

Speeds exceed industry standards

The chart below shows the average upload and download speeds that customers in rural Dufferin can expect in everyday use.

Everus is one of the very few wireless internet service providers in Canada who deliver 5 Mb per second download speeds to our residential customers.

COST OF SERVICES						
RESIDENTIAL	MIR down	MIR up	CIR down	CIR up	VoIP	MONTHLY COST
Edge	5Mb/s	1Mb/s	n/a	n/a	option	84.99
Prime	1.5Mb/s	1Mb/s	n/a	n/a	option	59.99
Basic	1.5Mb/s	500Kb/s	n/a	n/a	option	49.99

BUSINESS	MIR down	MIR up	CIR down	CIR up	VoIP	MONTHLY COST
Edge	5Mb/s	1Mb/s	1.5Mb/s	756Kb/s	option	124.99
Prime	3Mb/s	1Mb/s	1Mb/s	256Kb/s	option	99.99
Basic	1.5Mb/s	500Kb/s	500Kb/s	256Kb/s	option	129.99

- MIR up = **maximum** information rate upload
- MIR down = **maximum** information rate download
- CIR down = **committed** information rate upload
- CIR up = **committed** information rate download

Potential points of congestion

The most common cause of congestion is a “denial of service attack” from a subscriber, usually without their knowledge. The most probable congestion point is the Access Point and it’s interaction with the subscribers. Congestion is mitigated through QoS at the Access Router and through the Access Point configurations. Smart Polling, MIR, CIR and prioritization settings at the access point ensure everyone receives an equal portion in relation to their account profile, in the event of such a phase. The Access Router will notify the NOC, and depending on the level of threat or attack, automatically block the problematic subscriber.

Another potential cause is peak demand for Peer to Peer, FTP or torrents. In this scenario, only those specific protocols will be throttled so the essential services such as email, web browsing and VoIP will not be impacted. This assures fair and consistent access for all the subscribers.

All core sites are designed to exceed 99.999% availability. Surge protection for each antenna/radio is standard. It is commonly assumed that lightning/surge damage is through a direct strike, however most damage is received through the power grid. A Polyphaser 110 v inline surge protection mitigates this risk. Grounding is also commonly overlooked. Without proper and disciplined grounding practices, no surge protector can do its job. A second level of power grid protection is provided through the UPS. Along with the 24 hours (12 hours for micro pops) of automated backup power capabilities, our NOC is automatically notified of any power outage.

A Gateway site is critical to significant portions of the network. Several days of backup power is therefore provided through a standby propane-powered Generac generator.

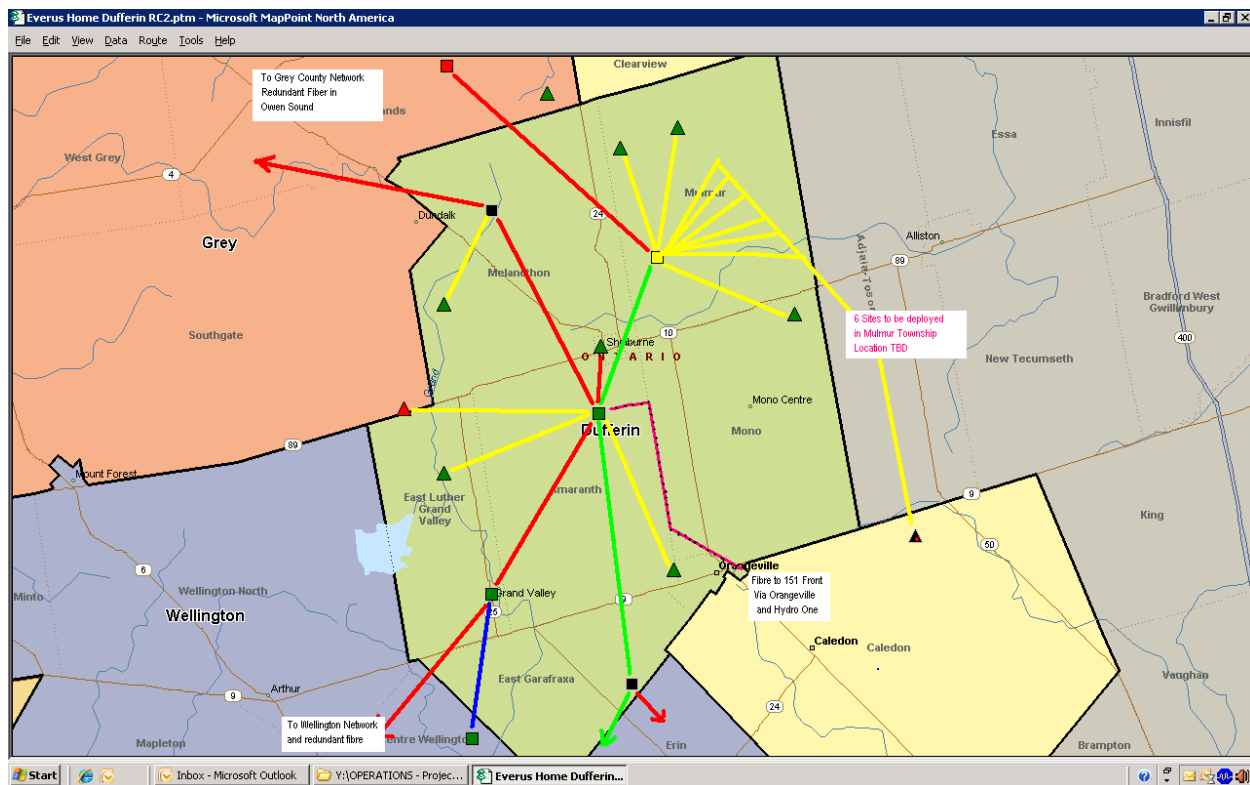
In the event of a catastrophic failure, you can be assured the network will be up and running quickly. Impact is minimized through OSPF routing and provisioning of alternate paths,

commitment to maintain replacement parts, mobile tower, and 24/7 on call technicians and riggers.

Solar and Wind Power

Four “off the grid” solar/wind powered communications sites. From 4 to 8 solar panels in combination with a 400watt wind turbine provide the system with independent power. A large battery bank provides several days of reserve capacity in the event of sunless and windless days. Remote IP monitoring provides peace of mind and will alert the NOC if action is required prior to a potential outage. Two systems have been installed in Grey, and proven successful.

Network Map



3.4 Equipment Details

See Attached: Dufferin RC2 – Schedule 3.4 Equipment Details

3.5 Construction Schedule

Below is a sample table to illustrate some of the activities.

Activity	Start Date	Completion Date
Site Selection	March 2009	July 2009
Equipment Ordering	April 2009	September 2009
Site Preparation	April 2009	October 2009
Pad Construction	April 2009	October 2009
Electronics Installation	April 2009	December 2009
Other		

3.6 Rick Factors

Identify any potential risks and mitigation paths associated with the construction and technical aspects of the project.

Risk Item	Possibility of occurring	Impact to project	Mitigation Path
Granting of Building Permits from NEC	Medium	Medium	Low profile exempt towers within 45ft in height. Address visual impact through tree planting and low impact locations
Consumer RF fears	Low	Low	Consumer education and information meetings.
Equipment availability delays	Low	Medium	Alternate suppliers available for proposed products
Unable to secure primary or secondary tower sites	Low	Medium	Move to backup sites. No mitigative measure if backup sites are not available. Would require communication with stakeholders affected.

Rural Connections Broadband Program

Schedule 4 - Addendum for Expenditure Forecast by Quarter



APPLICANT MUNICIPALITY County of Dufferin

Instructions: Allocate the Total Estimated Costs from the Summary Tab worksheet to the fiscal quarter in which these expenditures are expected to be incurred between April 1, 2008 and March 31, 2012.

FISCAL YEAR	April – June	July - Sept	Oct - Dec	Jan - Mar	ANNUAL TOTAL
2008-09	\$ 12,000	\$ 588,064	\$ 609,364	\$ 599,264	\$ 1,808,692
2009-10	\$ 13,500				\$ 13,500
2010-11					
2011-12					
Total: (Must Equal "Total Estimated Costs" from Summary Tab Total)					\$ 1,822,192

Schedule 5: Small and Medium Enterprise Outreach/Awareness

5.1 Small and Medium Enterprise Outreach and Awareness Plan

Introduction

A number of creative and varied approaches will be utilized to promote the benefits of broadband access to Dufferin area citizens and businesses. The goal of these activities will be to build on the strong foundation of awareness achieved in the initial Connecting Dufferin project. By providing affordable, accessible and efficient broadband access throughout this rural area, community involvement, business development and diversity, and employment growth are all stimulated.

The outreach plan, including the organization and delivery of events, the development of marketing tools, facility rentals required to support the outreach activities, and project summary reporting will be completed by June 2010. It is expected that the majority of activities related to the outreach portion of the project will occur in the latter part of the project as the impact of these exercises will be much greater if the marketing related functions are completed in the post-build phase. As a result, some outreach related activities will commence in the third quarter (October – December 2009) and activities will escalate in frequency through until late April 2010.

Outreach activities to stimulate interest in the benefits of broadband participation and increase subsequent uptake of access will be delivered by utilizing a variety of techniques geared to reaching a wide and diverse audience.

i) Outreach Activities

Outreach activities planned to support local awareness building and uptake by Small and Medium Enterprises include:

General Information Town Hall Sessions - General Information Sessions will be held in three towns within the County of Dufferin (Orangeville, Shelburne and Grand Valley) in an effort to reach as many members of the general public as possible and with the goal of introducing and generating interest in the project generally as well as stimulating ideas for business and personal implementation and usage of the broadband. These meetings will outline the features and benefits of broadband and provide an endorsement of utilization through the involvement of a locally elected official. The General Information Sessions will be conducted towards the end of the build-out phase and during the initial part of the outreach plan.

Sector and Topic Specific/Targeted Workshops and Demonstrations – Immediately following the completion of broadband infrastructure requirements, and during the post-build phase, considerable effort will be made to deliver sector and topic specific workshops that will serve to provide outreach, information and benefits to targeted populations and business sectors. These workshops, through presentation and demonstration, will feature solutions, resources and time saving strategies that can be achieved through implementation of broadband. Building on the successes achieved with these workshops in the initial project, sector-specific workshops will include sessions targeted to agriculture, arts, tourism, home-based service related businesses, and existing rural businesses in general. The targeted sessions will also feature specific workshops on such topics as introduction to web design, conducting business on the internet, and on utilizing Web 2.0 tools to effectively establish an online presence and market effectively. With the goal of stimulating new interest while also expanding existing utilization, these sessions will be designed to appeal to both new and existing broadband users, and especially small business owners.

Promotion through Existing Community Events and Services – Promotion of the Connecting Dufferin project and the benefits of broadband access will be completed by aggressively participating in various community based events and festivals. Outreach to communities at small, localized events was very well received during the first intake of the project, and the goal will be to build on this outreach method in the second intake. Partnering with local community organizations will create affordable opportunities to

conduct outreach and general information will be distributed to an even wider and more varied audience. Activities would include brief promotional updates on the project at all SBEC business related workshops and functions, Chamber of Commerce events, numerous rural community-based events and festivals, etc.

Trade Show Participation – Outreach to a large number of community based businesses, residents and potential users will be completed through participation in relevant community- based trade shows. Two major relevant trade shows are held within the community each year and participation in both is anticipated.

Media – A combination of paid advertising, press releases, and articles will be utilized to appeal to and generate interest and uptake from the general public of Dufferin. Four local community newspapers will be utilized in this media campaign. Media related information will focus on the provision of general information on the project as well as topic and sector-specific information on events related to the outreach component.

Mailings/Flyers - Flyers and post card style mailings will be created and distributed to businesses and farms throughout the County of Dufferin to promote the benefits of implementation and utilization of broadband. These mailings will highlight features and benefits of broadband, details on upcoming information sessions and workshops and will provide contact/registration information.

Resource Kits - Resource kits that provide information on accessing broadband and provide ideas and supports available to overcome barriers to adopting e-business solutions will be distributed throughout the community and targeted to small and medium sized enterprises by the Orangeville & Area SBEC. These kits will include information on how to contact relevant local broadband providers and also feature the “How You Can Profit from E-Business” book created by the Government of Ontario which provides an excellent introduction to e—business issues.

E Business Specialist - Outreach and Awareness Building activities, particularly workshops and events, will focus on embracing, implementing and utilizing e-business solutions that create increased business opportunities and prosperity through broadband implementation. Workshops and events will feature speakers who have expertise in a variety of e-business issues and provide attendees with access to expert information.

Email Outreach - SMEs will be targeted for participation in all awareness building activities through email outreach. The ever growing SBEC database of existing, developing and emerging small business owners will be utilized to help promote outreach activities and to share general information on the broadband project. Through partnership with local associations such as the Dufferin County Manufacturers Association, the Greater Dufferin Chamber of Commerce, the Hills of Headwaters Tourism Association, Business Improvement Areas, etc. an even greater email campaign will be launched to deliver outreach information in an affordable manner.

Surveying – Surveying of potential target groups and sectors will be completed to identify needs, barriers to uptake, readiness to embrace e-business solutions and will assist in developing targeted outreach materials as well as topic specific training opportunities in the post-launch phase. Surveying will also be completed, specifically towards the end of the post-launch phase, to obtain testimonials and provide evidence of the impact that broadband implementation can have in a rural community.

ii) Impact of Activities

Outreach activities will improve access to broadband connectivity and stimulate the use and expansion of e-business solutions among entrepreneurs and small and medium sized businesses. Specifically, the Outreach and Awareness Building activities will:

- Improve Dufferin area SMEs ability to compete for opportunities by adopting e-business solutions such as the development of a web-based presence, implementation of e-commerce and other strategies that make their businesses more comparable to larger competitors;

- Enable entrepreneurs and small and medium sized businesses to distribute information and business related updates to a wider audience and more quickly and affordably;
- Improve the ability of rural businesses to provide timely and accurate customer service by utilizing time and cost saving tools that will improve customer relations;
- Enable local SMEs to utilize the tools that they require to reach new, broader markets and build name recognition while also providing them with the tools to improve and expand their current marketing strategies, diversify business opportunities and increase sales;
- Provide SMEs with access to more information and resources about products, services and suppliers that could assist them to generate savings;
- Create easier, faster and better access to government related information, supports and services.

iii) Small Business Enterprise Centre

The **Orangeville & Area Small Business Enterprise Centre (SBEC)** will coordinate and manage the Outreach and Awareness Building component of the Connecting Dufferin project. The SBEC will, in turn, collaborate with a wide variety of relevant community partners and organizations to ensure that comprehensive and thorough outreach to rural based entrepreneurs and small and medium sized businesses throughout Dufferin County is completed.

iv) Outreach Management and Plan

Collaboration with the SBEC for the completion of the Outreach and Awareness Building component will be conducted through the Orangeville & Area SBEC and the key contact for this component will be Coordinator, Ruth Phillips.

The SBEC office will manage, organize, coordinate and ensure the delivery of the following outreach components:

- design, production and distribution of required marketing materials, including brochures, mail inserts and promotional kits,
- distribution of e-business resource materials and kits,
- completion of advertisements, press releases and articles in local newspapers to assist in keeping the project a focus of attention,
- coordination, planning, registration and delivery of broadband specific workshops and general information town hall meetings throughout the County of Dufferin by building on partnerships and collaborative approaches already established by the SBEC Office,
- ensure the inclusion of information on the broadband project in all SBEC-delivered workshops and special events throughout the County,
- organize materials, give-aways and manpower to launch/promote project at Chamber of Commerce Home and Lifestyle Show in October as well as Lions Home and Garden show in April,
- promote benefits of broadband usage, e-business tools and outreach for participation in the various workshops through database of existing SBEC contacts and small business owners,
- field general enquiries from public and provide information, appropriate referrals.

Partnerships established through new and existing business and community organization relationships will be key to the success of the outreach activities listed above. Partnerships already in place with the SBEC will be further developed to assist with the implementation and roll out of the Outreach Plan. These partnerships include, but are not limited to:

The Greater Dufferin Area Chamber of Commerce
Hills of Headwaters Tourism Association
Orangeville, Shelburne and Grand Valley Business Improvement Area (BIA) Associations
Centre for Business and Economic Development – local Community Futures organization
Dufferin Federation of Agriculture
Municipal offices and Economic Development leads within relevant municipalities

As the post-build outreach and promotion is completed, there is an excellent opportunity to continue working with the SBEC office to deliver a number of e-business training services that will provide small and medium sized businesses with the information and training they require to develop the necessary internet skills to compete more successfully in their businesses. Preliminary ideas for workshop and training sessions include topics such as Internet Security, distributing Electronic Newsletters, Online Business Research, Web Site Planning and Evaluation, On-line Promotion, Selling on the Internet, etc.

5.2 Small and Medium Enterprise Outreach and Awareness Plan – Deliverables, Timelines and Budget

Activity	Deliverables	Start & Completion Dates	Estimated Cost
General Information Town Hall Sessions	-3 sessions will be held (Orangeville, Shelburne, Grand Valley) –Includes meetings, bookings, preparation and delivery	October 2009 – February 2010	\$2,500
Sector/Topic Specific Workshops	-Approximately 6-8 sessions will be held within Dufferin County that focus on such topics as web design, e-commerce, web 2.0 and/or address broadband utilization as it applies to specific sector (ex. agriculture, artisans, tourism, home-based businesses) – includes preparation, promotion, delivery & presenter, handouts, and facility requirements for 8 sessions	October 2009 – April 2010	\$8,000
Community Events & Services	-Planning, preparation for and participation in approximately 10-12 business related, rural community based events and/or festivals including give-aways	June 2009 – April 2010	\$6,000
Trade Show Participation	-Participation in 2 local tradeshow (GDACC and Lions) with outreach to approx. 8-10,000 total visitors expected. Includes	October 2009 – April 2010	\$8,000

	registration, related handouts, promotional materials and manpower for 6 days		
Media	-Includes advertising costs - design, artwork and ad space (approx. 10) - for upcoming events and workshops to distribution population of min. 20,000 as well as press releases and articles on the project roll-out.	October 2009 – April 2010	\$4,600
Mailings/Flyers	-Design, information preparation and printing required for flyers, postcard style mailings to rural based businesses and farms throughout Dufferin County advertising upcoming events/activities. Also includes printing costs associated with handouts/give-aways/kits (est. 25,000)	October 2009 – March 2010	\$ 8,900
Resource Kits	-Distribution of kits at seminars and events to estimated 250 business owners	October 2009 – April 2010	(incl. above)
Email Outreach	-Outreach for participation in events and workshops utilizing SBEC database and complimentary association databases (est. 3500 Dufferin residents and business owners). Includes email/newsletter design	October 2009 – April 2010	\$500
Surveying	-Outreach via email and personal contact to secure testimonials and impact statements for Rural Connections project. Includes project summary report to SBEC	May – June 2010	\$1,500
Outreach Management	-Project Management Services as detailed under Outreach Management and Plan	April 2009 – April 2010	\$10,000

