CRRBO

Report on

An 'open door' on financing community broadband

- The role of P3s illustrated with two case studies -

Calix	Graybar Canada
Amedeo Bernardi Cons…	I-valley
Crown Capital Partners…	Plenary Americas
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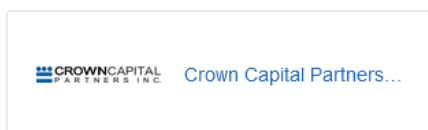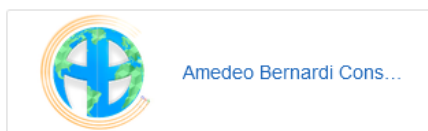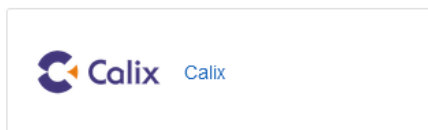
Virtual Forum

Broadband NOW

Tuesday, May 11th, 2021
11:00am - 2:00pm EST

Canadian Communities and the Broadband Gap

The Coronavirus has silenced any lingering doubts about the necessity of digital connectivity. Never before have broadband services been so obviously vital to our health and social cohesion.

Facing this need, Canada has been forced to acknowledge that a huge gap exists between digital "haves" and "have-nots". The cost of this infrastructure gap has been estimated to be $45-billion. While some federal and provincial funding has been promised, the gap is still $40-billion wide.

What is needed is not necessarily more Public Sector funding, **but a new structural approach** - one that takes advantage of the fact that there are other agencies available that could provide the funding.

By tapping the world's Public-Private Partnership (P3) organizations, Canadian communities could have Broadband NOW - along with a disciplined approach to the creation of broadband networks and, ultimately, Smart Communities of users.

This live event has been created to provide communities with an "on ramp" to introduce them to the P3 concept, and to illustrate for them   - through live examples - the benefits of taking the P3 approach.

It must be emphasized at the outset that the two main organizers of Broadband NOW, the CRRBC and i-VALLEY, are neutral organizations with no vested interests in P3 promotion. Their only concern is the development of broadband in Canada -- to which this event is dedicated.

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ATTENDEE QUOTES

"The speakers hit all the points…

It was a mental spa day!"

Executive Summary

- It starts with 'why are you considering this network?"; you need a digital transformation plan, not just a technology plan. How does this impact the lives of those who you will service?
- There are two competing challenges in Canada in providing infrastructure: there is a huge investment deficit in Canada, while at same time Canadians are eager for action and want more infrastructure built faster.
- P3s in Canada have come in on-time, on-budget, more often than projects done in other ways.
- The municipal approach can actually lower the capital cost: Open Access solutions are valuable in reducing the amount of capital needed by ISPs;
- Duplication of education and commercial networks, for example, can be avoided with a shared infrastructure. Why build a road four or five times?
- Chattanooga's community network is now recognized as having the world's fastest Internet.
- P3s have a set of guidelines for community broadband projects, and the exercise of working through those guidelines can provide clarity for community planners.
- It is important for a community to realize that they do not need to establish an Internet Service Provider (ISP), or to own the network. Both services can be obtained from independent partners.
- In terms of relationships, a key factor even for P3s is the Importance of citizens. They have to support a wholesome plan over the 20-30 years of its finance period.
- "Consumers should be aware of data sovereignty issues when subscribing to certain LEO providers.
- P3 financing can be usefully augmented by in-kind contributions from a community.
- Time horizons are expanding: communities need to ask themselves: "What is happening from Year 18 to Year 50?"
- Some communities have a *mandate* to invest*, and* they can get capital at lower rates.

- See "Steps Forward", page 24

ATTENDEE QUOTES

"A very informative session and time well spent … focus on outcomes, not the process … reflecting on the many participant's comments, we have to engage all the expertise to realize benefits to the community."

Speakers

Barry Baltessen
Kenora District Services Board

Amedeo Bernardi
President
Amedeo Bernardi Consulting Inc.

C

Devin Campbell
Assistant Vice President
Plenary Americas

Julia Crowder
Continuous Improvement Project Lead
District of Muskoka

D

Jon D'Alessandro
General Manager
Community Network Partners (Crown Capital LP)

Terry Dalton
President
i-VALLEY

Leanne Fetterley
Economic Development Coordinator
Township of Lake of Bays

L

Mathieu Lemay
Principal
Digital Ubiquity Capital

P

David Pickett
Principal
Pardal Ventures

Melanie Pilon
Community Network Partners

Mark Romoff
President & CEO
The Canadian Council for Public-Private
Partnerships

S

David Sandel
President
i-Neighborhoods, Chattanooga

W

Dennis Wallace
DoKURA

Barry Walton
Solution Architect
Corning

Event Agenda

11:00am

Introductions and Forum Overview
11:00am - 11:30am, May 11

📢 Moderator

Amedeo Bernardi
President, Amedeo Bernardi Consulting Inc.

📢 Panelist

Mark Romoff
President & CEO, The Canadian Council for Public-Private Partnerships

David Sandel
President, i-Neighborhoods, Chattanooga

Melanie Pilon
Community Relations Manager, Broadband Champion

11:30am

Community Case Study #1 - DoKURA
11:30am - 12:30pm, May 11

📢 Advisor

David Pickett
Principal, Pardal Ventures

Mathieu Lemay
Digital Ubiquity Capital

Devin Campbell
Assistant Vice President, Plenary Americas

Jon D'Alessandro
General Manager, Community Network Partners (Crown Capital LP)

📢 Moderator

Amedeo Bernardi
President, Amedeo Bernardi Consulting Inc.

📢 Presenter

Dennis Wallace
DoKURA

Barry Baltessen
Kenora District Services Board

2:00pm

Wrap Up Panel
2:00pm - 2:30pm, May 11

📢 Moderator

Amedeo Bernardi
President, Amedeo Bernardi Consulting Inc.

📢 Panelist

Barry Walton
Solution Architect, Corning

Terry Dalton
President, i-VALLEY

12:45pm

Community Case Study #2 - The District of Muskoka
12:45pm - 1:45pm, May 11

📢 Advisor

David Pickett
Principal, Pardal Ventures

Mathieu Lemay
Digital Ubiquity Capital

Devin Campbell
Assistant Vice President, Plenary Americas

Jon D'Alessandro
General Manager, Community Network Partners (Crown Capital LP)

📢 Moderator

Amedeo Bernardi
President, Amedeo Bernardi Consulting Inc.

📢 Presenter

Leanne Fetterley
Economic Development Coordinator, Township of Lake of Bays

Julia Crowder
Continuous Improvement Project Lead, District of Muskoka

ATTENDEE QUOTES

"I was impressed with the speaker lineup, and the care taken by the producers to put together a comprehensive and effective program…

I took five pages of notes!"

Introduction

For communities excited about the prospect of getting government funding for their broadband network, the sobering reality is that the odds are stacked ten-to-one against them. It is no secret that there will be insufficient government funding available to solve all of Canada's rural and remote broadband needs. However, there is no reason to abandon all hope, as there are other solutions available.

Broadband NOW was a conversation with the experts about financing and technology options that are achievable without the need to participate in a lottery or struggle for limited funds. This forum took a critical look at applying the well-established Public-Private Partnership (P3) model to tackle community broadband projects. Most are already familiar with P3s, a traditional option that is used to implement a wide array of projects from hospitals to highways.

Broadband NOW looked at how connectivity, as an essential service, can benefit from a new delivery methodology; in short:

- P3 financing is centred on community values,

- P3s can create advanced and sustainable broadband networks, and

- P3s can return revenues to the community.

On May 11th, the **Broadband NOW** panel of P3 and technology experts described how communities can use the P3 model to finance and operationalize their own networks efficiently and expeditiously. To ensure that the forum is relevant and targeted, the forum examined the broadband connectivity problem statements from two Canadian regions: **Kenora District's DoKURA area** and the **District Municipality of Muskoka**.

Public Private Partnerships and Community Growth

Context: The Public Private Partnership

Mark Romoff
President & CEO
The Canadian Council for Public-Private Partnerships

An overview was provided on the importance of broadband infrastructure was stressed: almost 90% of the public say it is important, and more than 50% say it is essential.

There are two competing challenges in Canada in providing infrastructure. There is a huge investment deficit in Canada, while at same time Canadians are eager for action and want more infrastructure built faster.

The Public Private Partnership (P3) is a cooperative arrangement between two or more public and private organizations, working to get infrastructure built. Canada is commonly regarded as a world leader in the field.

In a P3, the government looks to the private sector to design, build and often finance a project, usually by a consortium. P3s can tackle projects from hospitals to broadband networks.

The government agencies are protected, because the private sector commonly has to absorb costs of over-runs or delays.

Ultimately, a P3 is just a procurement method.

P3s in Canada have come in on-time, on-budget, more often than projects done in other ways. Some 300 projects have led to savings of more than $27-billion and have generated $14-billion in GDP and $5-billion in wages…plus $4-billion in tax revenues!

P3s have made a big difference in enhancing the quality of life for Canadians.

Communities and P3s

Melanie Pilon
Community Relations Manager
Broadband Champion

From an Economic Development viewpoint, until recently, P3s have not often been presented as an option. P3s themselves have not sought the broadband investment space, and communities have been relatively unaware of their potential for broadband financing.

This came to a head in a project with a group of municipalities and First Nations, where regional economic development was a key. Traditional methods of financing came with obstacles; the community leads needed a 'Plan B'. Their considerations were:

- o Infrastructure is crucial;
- o Timing of government funding is unsure; and
- o P3s gave certainty

In this case, the team still applied for government funding, but with the knowledge that even if they won, the funding would only be partial.

Their P3 partner supported with them with technical expertise as well as capital.

Community-friendly technology

David Sandel
President
i-Neighborhoods, Chattanooga

In working with the Chattanooga team from the early days of its broadband project, many lessons were outlined that could serve the needs of community networks everywhere. Chattanooga was described as one of America's foremost success stories:

In the city today, people are able to get Gigabit service for US$69/month.

One of the most important take-aways from Chattanooga, is that the project worked in a collaborative way: the city alongside the business community. The challenge was the need to overcome the industrial blight of abandoned buildings and zero growth - which the municipal broadband network overcame!

Chattanooga's community network is now recognized as having the world's fastest Internet. Its high-speed, community-wide fibre optic network has delivered economic and social benefits worth over US$2.69 billion in its first decade. The value realised exceeds the costs of the project by over US$2.20 billion, or a factor of 4.42. The network directly supported the creation and retention of more than 9,500 jobs, which is about 40 percent of all jobs created in the region.

In the process of its build, the big day arrived when officials announced that the city had turned around! Growth was positive, jobs were being created, and innovation was driving business. Interestingly, in an environment dominated by telcos, that news was not carried nationally.

Chattanooga has lately added a collaboration section to its program. For Covid, funds were raised to support 20,000 students!

Strong leadership and community championship proved to be the engine of transformation!

Roundtable Lessons

There were no downsides from working with P3s.

Even where it was not possible to get alignment from all the potentially affected communities, P3s were flexible enough to allow for bilateral arrangements to be negotiated which worked well. The objective did not change.

It was also noted that communities had different perspectives on how to do a project; personalities make changes necessary.

In cases where P3s are not simple to work out, the rewards can still be liberating. **P3's, for example, have a set of guidelines for community broadband projects, and the exercise of working through those guidelines can provide clarity for community planners** -- as well as guaranteeing a workable, sound network that provides community revenues and support for community values.

Case Studies

Kenora District DoKURA Area

Barry Baltessen
Kenora District Services Board

Dennis Wallace
DoKURA

Background

For those unfamiliar with DoKURA, it is a Non-Profit Corporation, incorporated under the laws of the Province of Ontario. DoKURA is short for District of Kenora Unincorporated Areas Ratepayers Association. It was formed 25 years ago (1996) to represent the interests of the over 25,000 permanent and seasonal residents who reside outside the organized municipalities and First Nations in the Unincorporated Territories in the southern portion of the Kenora District of Northwestern Ontario.

DoKURA's territory is nearly 20% of Ontario's geography. The territory has limited fibre optic service, line of sight internet using a cell phone-based connection, some towers that provide WISP service and satellite service.

Directors of DoKURA take the view that reliable, fairly priced and available internet is akin to rural

The District of Kenora Unincorporated Areas Ratepayers Association is a voice for 35,000 permanent and seasonal residents living outside of municipal areas and First Nations in 113,500 square kilometres of Ontario's Kenora District

electrification; it is a basic service and a right rather than a privilege. Following the logic of universal access, they would like every citizen in the DoKURA area to have access to internet service. In these rural locations, such as the Canadian Shield, the lack of internet infrastructure (especially fibre optic) and other limitations make a mix of satellite service, fixed wireless and expanded fibre optics, some of the choices needed.

In their opinion, network ownership is less the issue than transparency, commitment to keeping service levels at national standards, a reasonable connection cost and fair monthly rates. The presence of small to medium sized service providers would be helpful.

Kenora Recommendations

One of the challenges is that significant gaps in service exists but there are no indications from current service providers about their future plans.

Community leaders are very respectful of the successes of the First Nations; "we need to partner with them more effectively."

Xplornet seems overwhelmed by applications.

CapCom is a local ISP which may be a good choice to extend service.

Now investigating the SWIFT model, which has 1.5-million people; we need to find a model which could work for us.

We have a partner broadband application in place, but telcos reluctant.

Time is of the essence. Our people are facing health and safety issues.

<u>Solutions</u>

Devin Campbell
Assistant Vice President
Plenary Americas

A good start would be to focus on public assets, especially the technology and management side.

It is important for a community to realize that they do not need to establish an Internet Service Provider (ISP), or to own the network. Both services can be obtained from independent partners.

Some initial public cost could be charged to the project, allowing a company like Plenary to come in and do the financing. Even a small capital contribution is useful.

A middle ground can be obtained by acknowledging that the project is not sustainable on Day One, but there are ways to reduce initial costs and/or obtain public investment, with a view to a longer-term profit for the community. It is vital that the project is done as a collaborative development.

Jon D'Alessandro
General Manager
Community Network Partners (Crown Capital LP)

The economics in any project are important but other factors like technology options and relationship of the physical part of a network that is in between the backbone of the

network and the individual local networks with companies like Bell are also important. Community plans must deal with the logistics of telecom backhaul -- the part of a network that is in between the backbone of the network and the individual local networks -- that is potentially owned by a telco.

In terms of relationships, a key factor even for P3s is the importance of citizens. They have to support a wholesome plan over the 20-30 years of its finance period.

Another key component is an alliance of vendors or the community partners.

Mathieu Lemay
Principal
Digital Ubiquity Capital

Where do you start?

- Understand your objectives…does it matter that you have a third party?
- Bring all the key players together.
- Look on the P3 as a middle ground between fully public or private…think about it as a utility for the future.
- Financing for the community network might come from a Public Sector "transformation fund" and not a traditional "broadband" fund.
- Communities could also work with the value of data - *just like Starlink* – with the caveat that they must respect the limits of privacy.

David Pickett
Principal
Pardal Ventures

Communities are urged to develop a system to gather information and know what is happening across their region, so they can take advantage of electric new developments like construction of new power lines. A 360-degree analysis was recommended.

An advantage of a P3 is that it can put significant functions of the project into expert hand. The community should know what it is good at and only focus on that strength.

P3 financing can be usefully augmented by in-kind contributions from a community. It is extremely valuable to have assets like antenna sites and roadways where conduit could be placed - these add up to significant savings for the project

These community assets are valuable in themselves, but they also help save *time* – one of the most valuable commodities in a network project.

The engagement of local human resources is important. Google Fibre, for example, got civic staff to get involved in its projects.

Discussion

Communities were advised to think beyond "fibre" -- a project is about overall price and performance. Wireless is an option that can address the "sprawl".

A point that was stressed repeatedly was to have the key decision-makers at the table for alignment. Consolidate multiple small communities. Get the right people as well as the right communities. Hybrid solutions are a good fit.

The importance of governance and decision-making was highlighted. Coordinated leadership is vital for success.

Getting a consultant who has a total network view to help with the RFP or RFQ is critical, otherwise **communities are at risk of putting things into silos that are only concerned with finance or revenue.** This can distort the network's evolution.

Going forward: understand your current infrastructure, the market, and then bring the communities together.

There is a combination challenge in many regions. First, geography: the regions in Canada are so big. Second: multiple interests, with people in (e.g.) Kenora who are looking for a variety of solutions. This makes it essential not only to bring the geographic pieces together, but also unite the areas of interest. **One technology solution, like Low Earth Orbit satellites, may not be capable of reconciling the variety of geographic and sectoral interests.**

District Municipality of Muskoka

Julia Crowder
Continuous Improvement Project Lead
District of Muskoka

Leanne Fetterley
Economic Development Coordinator
Township of Lake of Bays

Background

The District Municipality of Muskoka (District), more generally referred to as the District of Muskoka or Muskoka, is a regional municipality in Central Ontario. Muskoka extends from Georgian Bay in the west, to the northern tip of Lake Couchiching in the south, to the western border of Algonquin Provincial Park in the east.

A two-hour drive north of Toronto, Muskoka spans over 4,765 square kilometres, has more than 650 lakes over 8 hectares in size, and 38 wetlands designated as Provincially Significant, making it a popular cottage destination, but also creates a difficult landscape for installation of broadband infrastructure.

The District of Muskoka includes six lower tier Municipalities (Town of Gravenhurst, Township of Georgian Bay, Township of Muskoka Lakes, Town of Bracebridge, Town of Huntsville and Township of Lake of Bays) and two First Nations (Moose Deer Point First Nation and the Wahta Mohawk First Nation).

The region is made up of almost 71,000 individual land parcels. It is home to over 60,000 year-round residents, and an estimated additional seasonal population of 60,000 to 80,000. Seasonal residents spend considerable time in the District every year but would spend more time if they had reliable and adequate broadband services.

The COVID-19 pandemic has demonstrated that access to broadband connectivity is a basic and essential service for all Canadians. Broadband is required by residents to access online education, health services, online purchasing, government information and services. Connectivity has also become a key factor in businesses competitiveness and many of our small businesses are experiencing significant

hardships as a result of inadequacies in the current network. Broadband enables local communities, regions and nations to develop, attract, retain and expand job creating businesses and institutions.

Broadband is currently provided in Muskoka through a mixture of national, regional and local service providers. Due to this, some areas have a choice of providers while others, in more rural areas generally, have poor to no available service. Furthermore, even in areas where coverage may be available, the cost can be a barrier to access.

 One major underlying issue is that broadband providers build in areas where they can receive the best return on investment and in Muskoka that is the urban communities. This means that underserved areas do not receive capital investments in broadband and those most in need are left behind.

THE DISTRICT **M** OF MUSKOKA
MUNICIPALITY

Located in Central Ontario. A two-hour drive north of Toronto.

Muskoka spans over 4,765 square kilometres, has more than 650 lakes over 8 hectares in size, and 38 wetlands designated as Provincially Significant.

The District of Muskoka is made up of six lower tier Municipalities and two First Nations.

Our region is made up of almost 71,000 individual land parcels. Is home to over 60,000 year-round residents, 60,000 to 80,000 seasonal residents and 4 million visitors annually.

Gaps and Needs

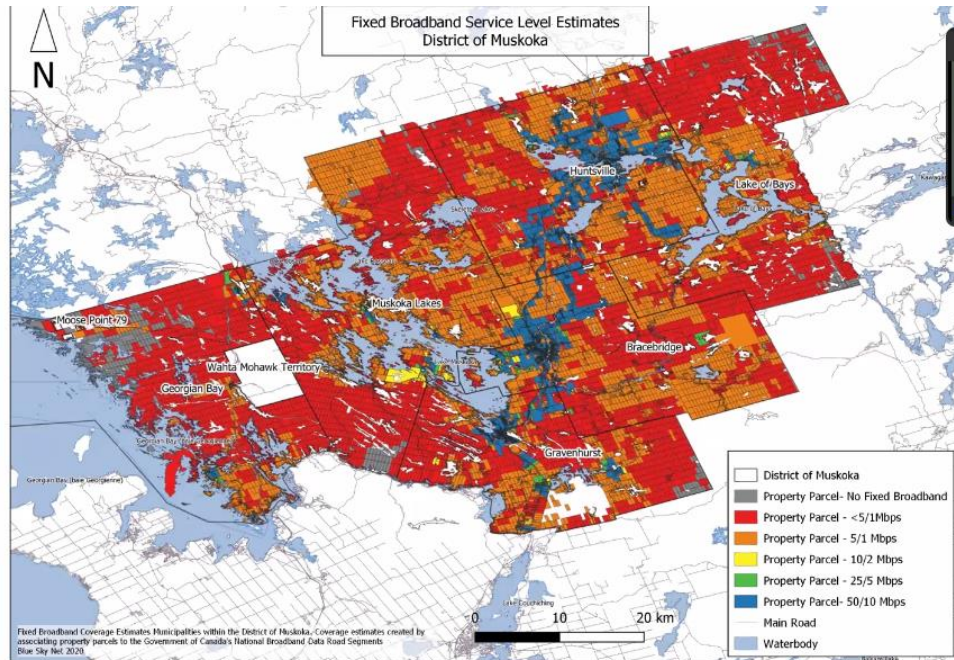- **Speeds**: Many who can access broadband are not receiving adequate bandwidth (50 Mbps/10 Mbps)
- **Reliability**: Signals and connections for many are unreliable and disruptive.
- **Connectivity**: Gaps in service availability means many in the region can not access internet services
- **Affordability**: Rates are often more expensive (higher than urban packages) and offer less service and stability.

Expansion Barriers
(Private Investment)

- Financial Viability (economic conditions in Muskoka including supply and demand).

- Project Feasibility (as it relates to current network infrastructure).

- Human Resources and Contractor Availability.

- Equipment/Material Availability and Cost.

- Landscape/Terrain.

- Project Timelines.

- Funding Available.

Fixed Broadband Service Level Estimates
District of Muskoka

Legend:
- District of Muskoka
- Property Parcel- No Fixed Broadband
- Property Parcel - <5/1Mbps
- Property Parcel - 5/1 Mbps
- Property Parcel - 10/2 Mbps
- Property Parcel - 25/5 Mbps
- Property Parcel- 50/10 Mbps
- Main Road
- Waterbody

Fixed Broadband Coverage Estimates Municipalities within the District of Muskoka. Coverage estimates created by associating property parcels to the Government of Canada's National Broadband Data Road Segments Blue Sky Net 2020.

Muskoka Broadband Initiatives

Progress and Next Steps

- Formed a Broadband Committee to champion expansion in the region.
- Worked with Blue Sky Net to complete a gap analysis and to facilitate speed testing
- Completed an RFI to obtain information and feedback from local ISPs.
- Looking to develop a Regional Broadband Strategic Plan to identify opportunities and achievable goals to meet current and future broadband demands.
- Interested in identifying different business models and unique solutions to improve broadband.

Muskoka Recommendations

Muskoka started by reaching out to local Internet Service Providers to find gaps and needs. At this point, everyone realizes that although a good start has been made, there is a long way to.

The point was highlighted that communities need to be clear about understanding their goals. After listening to the previous panel, Muskoka is better able to think about the 'utility' model of network provision.

BlueSkyNet was thanked by Muskoka for their consulting advice. Now the region is looking to build a strategy, with different business models for comparisons. In the process, it has been good to hear about the Public Sector getting involved.

Mathieu Lemay
Principal
Digital Ubiquity Capital

Where would you go first? Services and impact are the drivers. **It starts with 'why are you considering this"; of course there is pressure but you need a digital transformation plan. How does this impact the lives of those who you will service?**

When we work with the communities we want to know the end goals and the full value chain of impacts, so you can be as creative as possible. Holistically, there are more things you can do than just put in broadband. The fragmentation of technologies is difficult for people to grasp. The solution will be a mixture of technologies, and these technologies are moving targets…they will mature.

Jon D'Alessandro
General Manager
Community Network Partners (Crown Capital LP)

The community must really understand its objectives. In the long-term future – what does 'good' mean to you? Are there any gaps that are prominent?

The financial cost of a network might be about $300-million. How do we solve that? Develop a streamlined approach with all municipalities around one touch point. Coordination is also vital. In this way all of the assets across all of the communities will be revealed and used in the financial planning.

Devin Campbell
Assistant Vice President
Plenary Americas

The historical divide between public and private services is blurring. **Time horizons are expanding: communities need to ask themselves: "What is happening from Year 18 to Year 50?"** This is important for the community investment consideration. It brings in the possibility of ongoing revenue generation that would serve

future generations within the community. This urge is matched by P3s: **the financers want to put their capital away for longer periods!**

Finally, **if the public sector can add funds, the attraction for a P3 is powerful!**

David Pickett
Principal
Pardal Ventures

Communities have a longer time-line for financing than do traditional communications companies. **Some communities also have a mandate to invest**. Muskoka has a holding company that owns fibre. Lakeland Networks would be a natural to be an operator. Also, **communities can get capital at lower rates**, because of the lower risk of borrowing (they have taxpayers).

Discussion

The issue of whether a community-governed network would rouse the ire of Internet Service Providers was raised, with the question of whether in practice a community had ever funded a network itself and not aroused the ire of the ISPs.   The Municipality of Pictou County was mentioned as one such example, where a municipal network actually attracts the interest of ISPs, and in fact gives local ISPs a better chance at competitive positioning. In all cases, however, the municipalities have to work with the ISPs to be able to deliver a full communications offering.

YorkNet is another regional community network that offers a dark fibre facility that enables municipal service providers to interconnect. It also reduces the risk of over-building. **The municipal approach can actually lower the capital cost: Open Access solutions are valuable in reducing the amount of capital needed by ISPs.**

The question was raised of the split in capital provision: with a cost of $300-million for Muskoka, how much should come from higher v.s. local levels of government?

It was advised that at the outset, planners should stay away from specific metrics and percentages. Go for revenue potentials, leasing and value-add and growth sectors - many factors influence levels of debt. There is always a financial package that is perfectly suited to the project.

In this concept, the risk comes from partners like telcos that only have one focus. A publicly-owned network has a multitude of assets and capabilities that can be used for different values in the capital stack.

Duplication of education and commercial networks, for example, can be avoided with a shared infrastructure. Why build a road four or five times?

The Muskoka example spoke for many communities when its spokespeople said that they had not really defined their opportunities and approaches: "We need to understand our own potential. It was sobering to hear about Starlink and data."

Conclusion

Amedeo Bernardi
President
Amedeo Bernardi Consulting Inc.

Barry Walton
Solution Architect
Corning

Terry Dalton
President
i-VALLEY

"I learned a lot in a very short period of time."

The conversation was greatly appreciated, with a flow of information that was apt and focused.

The vision of a community network as the single road that takes all traffic was powerful: a neighbourhood service that allowed all connections.

Ultimately, it is about digital transformation through focused outcomes and total involvement - which means the community has to engage with a provider like a P3 instead of handing off the job to a traditional carrier.

There were a number of steps that emerged from all of the advisors:

- Start with Governance, in the form of a community champion or community leadership group;
- Assess the total value that the community can bring to the project, including assets like land and capabilities like expertise;
- Engage the community in the process, and get the involvement of specific sectors that will benefit;
- Establish a simple Vision, such as "Equitable coverage for all," and "Equitable treatment for local ISPs";
- Get a high-level network plan, including costing, that will enable the Vision;
- Make a Business Plan, in conjunction with a knowledgeable partner, that will fund the network and provide for the community's future;
- Get expert help putting out an RFP and RFQ to select partners;
- Market and connect with customers.

In this way, communities and P3s can work together to solve Canada's broadband deficit, quickly and efficiently, for the citizens' benefit.