

**Pre-budget Consultation Submission**  
**Michael Cunningham**  
**August 5, 2016**

**Executive Summary**

Access to high speed Internet by individuals, businesses, and government is increasingly a requisite for a prosperous and socially healthy community. The remote communities of the Canadian Arctic, especially Indigenous communities with significant social inequities, lack the fibre optic telecommunication infrastructure required to provide high speed Internet. The federal government should facilitate the development of fibre optic telecommunications infrastructure to the indigenous communities of the Canadian Arctic.

Federal Actions and Measures

- Provide one-time capital grants to facilitate telecommunications infrastructure development to the Arctic
- Ensure modern fibre optics are the technology platform used to provide connectivity
- Extend reach and lower cost by partnering with qualified businesses to develop telecommunications infrastructure
- Require private investment from private business

In addition to the human and social benefits provided by broadband, many other benefits are enjoyed as a result access to the Internet in 2016. In the Canadian Arctic, many of these benefits are very material.

Benefits

- Improved delivery of healthcare services
- Distance education at all levels is enabled
- Lower costs of living by access to ecommerce purchasing
- Catalyst for economic and regional development
- Enhanced delivery of government services
- Lower cost to all levels of government of delivering government services

Outcome

By leading and facilitating the development of modern telecommunications infrastructure in the Canadian Arctic, the federal government would immediately improve the lives of Indigenous peoples, provide a catalyst for long-term social and economic development, and lower the cost and improve the delivery of government services.

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The Honourable Wayne Easter, P.C., M.P.  
Chair of the House of Commons Standing Committee on Finance  
House of Commons  
Ottawa, Ontario K1A 0A6

August 5, 2016

Dear Honourable Mr. Easter,

It is a pleasure and honour to provide this submission to the Committee as part of the pre-budget consultation process. While the views here are my own, I am grateful for the opportunity to apply my unique insight as the former CEO of Arctic Fibre and current board member of Quintillion Subsea Holdings LLC towards an approach to help bring broadband to the remote Indigenous communities in the Canadian Arctic.

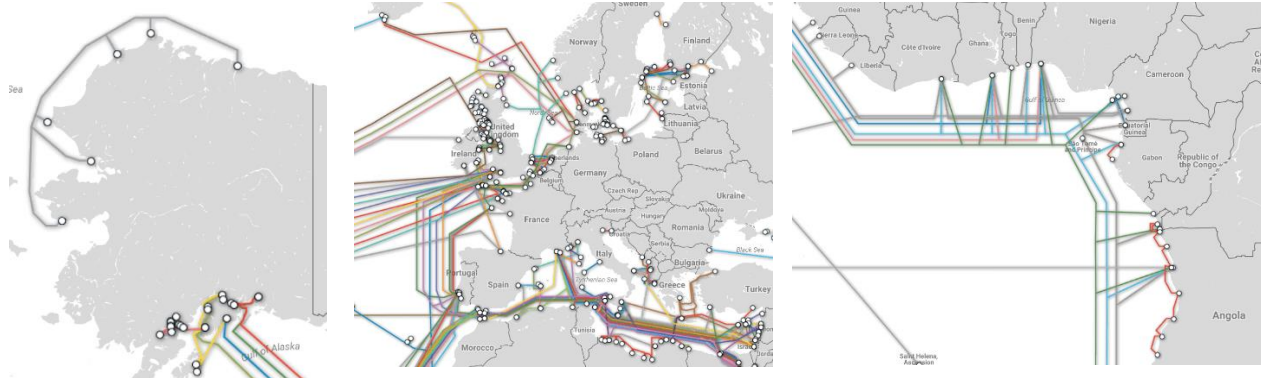
Broadband is increasingly being mentioned as akin to a human right; the opportunities that it brings are indisputable. In the remote communities of the Canadian Arctic however, the benefits to the people would be much more pronounced as it serves to lessen the remoteness to the rest of the world and improve the delivery of everyday government services.

Large distances, small markets, and unforgiving environments have precluded the development of modern broadband networks to the Canadian Arctic by private enterprise. All levels of government of all political stripes have, and continue to, throw vast amounts of money at the problem. The result thus far after having spent hundreds of millions on subsidies for satellite Internet is the continuing lack of broadband Internet.

A new approach is needed.

#### Federal Actions and Measures

In order to provide broadband to individuals, businesses, and governments, a broadband enabled network needs to be developed. This means fibre optics. Behind every home Internet connection, cellular tower, or hyperscale data centre, fibre optics is the technology that the Internet runs on. In the Canadian Arctic, where most communities are on the coast and where there are no roads, this means a subsea fibre optic cable. A subsea fibre optic cable is the only technology that can provide broadband to these remote communities. It is a tried and true technology that 99% of international Internet traffic runs on.



*Examples of subsea fibre optic cable systems in Alaska, Europe, and west Africa.*

Subsea cable projects are expensive, capital intensive projects. They are however, relatively inexpensive to operate and they have a long lifespan of 25-40 years. Even very small markets like the Canadian Arctic can sustain the cost of operating a large subsea cable system.

Unlike current operating subsidy programs, providing a one-time grant to facilitate the development of a subsea cable system would effect a meaningful change without any additional cost to government over the life of the asset. Moreover, the government would actually realize a monetary return on the investment through quantifiably reduced expenditures, such as millions in savings from reduced patient transport costs as an example.

By providing a grant to a business to develop a subsea system, and requiring the business to invest their own capital alongside the government, the government can reduce the grant size required to develop a system. Existing telecommunications regulation and a private business operator would ensure that a system is operated efficiently, and that the grant funding is utilized effectively. It also enables the government to lower the size of any grant, or alternatively use grant funds to provide solutions to more people.

A one-time investment for a permanent solution. This is the approach that I am suggesting. Provide a matching fund grant to a business that will invest its own capital alongside the government in a subsea system to provide broadband to the Indigenous communities of the Canadian Arctic.

This approach is now being used in both Canada and around the world to develop telecommunications infrastructure. It is much needed, overdue, and a real possibility.

I thank the Committee for the opportunity to provide this submission.

Yours sincerely,

  
Michael Cunningham