Executive Summary of 500 words:

The Coalition of Internet Service Providers inc. (CISP) regroups several Internet Service Providers (ISPs) in Canada before the Government of Canada’s (GOC) various agencies, such as the CRTC, the Competition Bureau as well as Industry Canada.

In this submission, CISP wishes to emphasize the role that ISPs play in the market as the guardians of innovation on the Internet and the contributions being made towards building a world class digital infrastructure in Canada.

In the consultation paper at the top of page 18, the GOC emphasizes that under the key question of whether the right frameworks are currently in place to encourage competition, investment and the right pace of progress, that it has expanded a proceeding before the CRTC to examine amongst other things, how the current wholesale framework should apply on a forward-looking basis to new types of Internet access infrastructure.

CISP is concerned that the GOC may be drawing the wrong conclusions from the present conclusion as a result of the fact that current CRTC proceeding is only concerned with infrastructure involving copper wires of telephone and cable companies. The CRTC has yet to launch a proceeding to consider how the current wholesale framework should apply for investments in fibre-to-the-home.

The role of fibre-to-the-home in the digital economy is key as, along with Wi-Fi, WiMAX and 4G, it provides the much faster upload speeds required for Canadians to participate in the world digital economy.

The billion dollar investment of Bell Canada in Fibe, may enable Bell Canada to provide IPTV over wires rather than strictly satellite, but Fibe is not fibre-to-the-
home and remains much too asymmetrical. The large investments by cable carriers into upgrading their networks to DOCSIS 3.0, may enable faster download speeds by combining several television channels, but their networks similarly remains much too asymmetrical.

While Bell has committed to wire up one third of the Maritimes with FTTH, 2/3rds will be denied uncompromised access to the digital economy. In Quebec and Ontario, only Quebec City is set to have FTTH.

CISP members are taking advantage of the current wholesale framework to combine the infrastructure deployed for purpose of aggregation, with self-owned WiFi, WiMAX and FTTH networks, thus enabling Canadians to get much faster upload speeds.

The scale of such deployments by ISPs is small at this time, because the current wholesale framework is largely broken. Essential facilities of telephone and cable companies cannot be purchased separately from their aggregation facilities at this time. The resulting margin squeeze has been a campaign purposively orchestrated over the last 10 years to deny ISPs the business case to invest.

ISPs are the guardians of innovation on the Internet. Provided with a business case to invest, ISPs will also build, on a large scale, networks with the upload speeds necessary for Canadians to participate in the digital economy.

CISP requests that the GOC does not deny such outcome by further delaying access by ISPs to FTTN, FTTH and DOCSIS 3.0 facilities of the incumbent telephone and cable carriers.

**Company Website:** www.cfai-cisp.ca
Introduction

The Coalition of Internet Service Providers inc. (CISP) regroups the interests of the following Internet Service Providers (ISPs): AEI, B2B2C, Colba, Michaud, OnCall, Oricom, Uniserve, VIF & Xittel. CISP members were the first to bring the Internet to many Canadians and remain today, the guardians of innovation on the Internet.

Over the last several years, CISP has intervened numerous times before the CRTC, the Competition Bureau and Industry Canada. In each and every submission, CISP has always explained that the current wholesale framework, which is predicated on margin squeeze, denies the opportunity for ISPs do make greater investments over the hundreds of millions already invested by ISPs in Canada.

Over the last ten years, the investments by incumbent telephone and cable carriers have not been towards building the infrastructure with the capabilities necessary for enabling Canadians with the necessary upload speeds to participate in the digital economy.

Today, upload speeds of less than one megabit per second means hours, if not days, spent transmitting a few hours of high-definition content back to the Internet. While download speeds are increasing, upload speeds are stagnant largely because of the limitations of incumbent telephone and cable carrier copper networks.

The FCC in the USA, declared in 2002 that new investments in fibre-to-the-node (FTTN) and fibre-to-the-home (FTTH) would be forborne from wholesale obligations. After a few years of such regime being in place and five million homes\(^1\) connected with FTTH, further deployments of FTTH are today only being made conditionally to billions of public subsidy, largely as a result of the absence of competitors committed to FTTH (incumbent cable carriers are not committed to FTTH).

Five million homes in the USA are equivalent to \((5/115 = x/11.5) = 500,000\) homes in Canada. While it is a fact that the regime of forbearance related to FTTH investments in the USA has lead to millions of homes being connected, the same facts applied to Canada also mean that once Canadian incumbent telephone companies do away with competition from ISPs and connect half-a-million Canadian homes with FTTH, they will too also likely cease to invest in the absence of massive public subsidies.

---
\(^1\) [http://www.ftthcouncil.org/sites/default/files/RVAFTTH_Apr10.040712Final.pdf](http://www.ftthcouncil.org/sites/default/files/RVAFTTH_Apr10.040712Final.pdf)
The role of innovation on the Internet and the digital economy

CISP is of the view that there exists a fundamental correlation between the pace of innovation on the Internet, the health of the digital economy and consequently the number of jobs in Canada empowered by the digital economy.

In other words, any attempt to slow the pace of innovation on the Internet also means that the number of jobs empowered by an artificially constrained digital economy will be proportionately reduced.

It is not a surprise to consider that in order to maximize shareholder value, incumbent telephone and cable carriers, are motivated to slow down the pace of innovation on the Internet.

On the other hand, Internet Service Providers are embracing the following innovations on the Internet and many of them are today, to only list a few;

- Offering services featuring version 6 of the Internet protocol
- Providing managed email and web hosting services on a bundled or stand-alone basis, and allowing the portability of the service across multiple service providers
- Offering services featuring fixed IP addresses and allowing for home servers
- Offering symmetrical services to residential customers, featuring upload speeds that are as large as download speeds through WiFi, WiMAX and FTTH connectivity
- Offering voice-over-IP services to displace traditional primary exchange service revenues
- Offering voice-over-IP services without charging for long distance calls
- Offering voice-over-IP services without charging extra for optional services, such as call forwarding, voice-mail, caller ID, etc.
- Offering managed IP telephone services to the greater public as opposed to only large enterprises
- Offering home networking managed services and home servers providing content on the Internet with fixed Internet Protocol addresses
- Allowing Internet streaming of broadcasting content to displace traditional television watching revenues
- Allowing Internet download of movies to displace traditional pay per view revenues
- Offering home security services over the Internet
- Combining multiple forms of access such as WiFi, WiMAX along with DSL or Cable to provide multihomed redundant connectivity for small businesses allowing for greater levels of business connectivity
- Engaging in custom arrangements for small businesses combining multiple facilities from multiple providers to create unique solutions
Such innovations on the Internet are fundamentally at odds with the business motivations of the incumbent telephone and cable carriers and provide Canadians with much necessary choice.

A digital economy without many Internet Service Providers as competitors to discipline the market will increase the pace at which violations of net neutrality will take place.

**CRTC Notice of Consultation 2009-261**

In the consultation paper at the top of page 18, the GOC emphasizes that under the key question of *whether the right frameworks are currently in place to encourage competition, investment and the right pace of progress*, that it has expanded CRTC Telecom Notice of Consultation 2009-261\(^2\) to examine amongst other things, how the current wholesale framework should apply on a forward-looking basis to new types of Internet access infrastructure.

CISP is concerned that the GOC may be drawing the wrong conclusions from the present conclusion as a result of the fact that current CRTC proceeding is only concerned with infrastructure involving copper wires of telephone and cable companies. The CRTC has yet to launch a proceeding to consider how the current wholesale framework should apply for investments in fibre-to-the-home.

Rather than reproduce the final submission of CISP in that CRTC proceeding here, CISP is providing the following hyperlink to the CRTC web site for a copy of the CISP submission:


---

Since an illustration is worth a thousand words, this is an illustration of the network configuration requested by CISP in that proceeding:

Shown to one skilled in the art of telecommunications network design, this illustration will be understood to be technically feasible, standards-compliant, and common for both FTTN or FTTH network architectures, enabling the implementation of an unbundled service that is agnostic to the underlying technology, be it FTTN or FTTH.

As can be seen from this illustration, the elements in red are facilities, which Internet Service Providers will be responsible for and facilities in green are those, which are regulated by the CRTC. The architecture proposed by CISP works for both FTTN as well as FTTH.

However, CISP submits that the CRTC is not going to assess it for FTTH as currently not in the scope of TNC2009-261, contrary to the position expressed at top of page 18 of the Consultation document.
CISP submits that if the GOC is truly of the opinion that it has directed the CRTC to examine how the wholesale framework should apply to new types of Internet access infrastructures, then it beholds upon the GOC and the CRTC to work together and ensure that there is a follow-up activity to TNC 2009-261, wherein FTTH will be a matter of the scope of the consultation.

CISP is proposing that in the interim, which may last several months, that its proposed architecture be implemented as depicted, in order to make sure that the market is not unduly affected by the lack of access to FTTN or FTTH by ISPs until such time as the market power of the incumbent telephone companies in the FTTH markets are duly considered.

The role of fibre-to-the-home in the digital economy is key as, along with Wi-Fi, WiMAX and 4G, it provides the much faster upload speeds required for Canadians to participate in the world digital economy.

The billion dollar investment of Bell Canada in Fibe, may enable Bell Canada to provide IPTV over wires rather than strictly satellite, but Fibe is not fibre-to-the-home and remains much too asymmetrical. The large investments by cable carriers into upgrading their networks to DOCSIS 3.0, may enable faster download speeds by combining several television channels, but their networks similarly remains much too asymmetrical.

While Bell has committed to wire up one third of the Maritimes with FTTH, 2/3rds will be denied uncompromised access to the digital economy. In Quebec and Ontario, only Quebec City is set to have FTTH.

CISP members are taking advantage of the current wholesale framework to combine the infrastructure deployed for purpose of aggregation, with self-owned WiFi, WiMAX and FTTH networks, thus enabling Canadians to get much faster upload speeds.

The scale of such deployments by ISPs is small at this time, because the current wholesale framework is largely broken. Essential facilities of telephone and cable companies cannot be purchased separately from their aggregation facilities at this time. The resulting margin squeeze has been a campaign purposively orchestrated over the last 10 years to deny ISPs the business case to invest.
Access to spectrum and support structures and caps on foreign ownership

As of the time of this writing in July 2010, ISPs who have not participated in past auctions for spectrum have access to unlicensed spectrum, 50 megahertz in the 3.65 to 3.7 GHz band and are facing potential increases between 200% and 500% in support structures as a result of CRTC Notice of Consultation 2009-432.

To overcome these barriers, Canadian ISPs cannot rely on foreign investment as such foreign ownership of facilities-based ISPs is also currently capped at 25%.

CISP is of the view that the GOC and the CRTC have a fundamental role to play in ensuring that there exists a level playing field in access to support structures and spectrum.

In the near future, Industry Canada will be launching new auctions for spectrum in two fundamentally important bands, the ITU-T 4G worldwide band, as well as in the current television band, in anticipation of transition from analog to digital.

Currently, there are no indications from the GOC that there will be set-aside provisions in these bands, similar to such provisions made in the AWS band.

Unless set-aside provisions are made for the new auctions, incumbent carriers will end-up in control of BWA, AWS, BRS and 700 MHz assets and will more than likely have not deployed any of it. Such spectrum concentration is neither necessary, nor in the public interest.

ISPs require more than 50 megahertz in the 3.65 to 3.7 GHz band. A proposal was made\(^3\) that the 50 megahertz in the digital radio broadcasting 1.4 GHz band be repurposed for broadband access and commercialized in the same fashion as the 3.65 to 3.7 GHz band.

The current framework for access to support structure should be revisited to require owners of support structures to search for available routes and recover such costs from the rates of support structures, rather than send competitors on a hit-and-miss never ending game. Such is the case in countries like Portugal, which have mandated reference offers\(^4\) for conduits which have lead to significant FTTH competition.

---


\(^4\) [http://www.anacom.pt/render.jsp?categoryId=126599&themeMenu=1](http://www.anacom.pt/render.jsp?categoryId=126599&themeMenu=1)
Unbundling FTTH is an international concern

Internationally, in countries such as France, the regulator remains committed to require the ‘mutualisation des boucles locales FttH en dehors des zones très denses’ as expressed by the French regulator ARCEP in its submission\(^5\) to the Prime Minister of France, dated June 15, 2010:

Une décision complémentaire reste cependant nécessaire pour préciser les modalités de l’accès aux réseaux à très haut débit en fibre optique au-delà des zones très denses, et en particulier :
- afin de préciser les conditions de localisation du point de mutualisation en dehors des zones très denses et des modalités d’accès à ce point de mutualisation et aux ressources associées ;
- afin de favoriser le cointvestissement entre acteurs.

Much of Canada would qualify as being outside of densely populated areas as defined by the French regulator ARCEP.

In its submission to the CRTC in TNC 2009-261, CISP has provided expert economic evidence from Dr. Stephan Barnes, as to the duration of temporary monopolies that can be granted for investments in FTTH.

CISP wishes to emphasize that this economic evidence has been ignored by the CRTC as it was not required to consider it in either the context of PN 2006-14, nor in the context of TNC 2009-261, as neither of these proceedings had concern for the market power of incumbent telephone companies in Canada in the FTTH market.

It remains a significant concern of CISP that the GOC fully appreciates that neither the CRTC, nor Industry Canada, nor the Competition Bureau, have made any comprehensive effort to fully consider the market power of the incumbent telephone carriers in Canada in the FTTH market. There will be no competition other than between that of a cozy duopoly between Bell Aliant and the cable carrier in the Maritimes, unless the CRTC mandates FTTH unbundling.

CISP submits that the present consultation on the digital economy represents an ideal opportunity for the GOC to require the CRTC to consider the disastrous consequences to competition that would entail from ISPs being denied access to essential FTTN and FTTH facilities of the ILECs.

Conclusion

ISPs are the guardians of innovation on the Internet. Provided with a business case to invest, ISPs will also build, on a large scale, networks with the upload speeds necessary for Canadians to participate in the digital economy.

CISP requests that the GOC does not deny such outcome by further delaying access by ISPs to FTTN, FTTH and DOCSIS 3.0 facilities of the incumbent telephone and cable carriers.

The importance of telecommunications competition is paramount.

The following excerpt from the transcript of the fifth day of TNC 2009-261 says it all, between the Chairman of the CRTC and the counsel of Bell Canada:

8159  THE CHAIRPERSON: But Cabinet, much as it is concerned about the whole outcome of, you know, next-generation network, it is also concerned about the whole outcome of not leaving out small-town Canada, and that is why I am trying to find if there is some way, some middle ground, some win/win solutions, therefore, you are putting me in front of a very difficult choice.
8160  You say either you have a roll-out of next generations or, if you do mandate speed or mandate ADSLCO you are going to delay it, retard it or you are not going to have it.
8161  MR. BIBIC: And that's what Cabinet is concerned about, that's why they sent it back.
8162  If we don't build -- when I say -- and Dennis will -- Dennis would like to step in here, but if we -- I say in the end, if we don't build nobody will.

While it may be the belief of the incumbent telephone carriers that if they do not build FTTN, nobody else will build, such a pretentious claim is not obviously believable. In saying so, the incumbent telephone companies are thus endorsing claims of competitors that the current frameworks for access to support structures and the necessary spectrum are fundamentally deficient.

Furthermore, it could be argued that investments in FTTN by the incumbent telephone companies are not so much in the public interest of Canadians demanding a fair opportunity to participate in the digital economy as they are a competitive response to cable carriers, in order for telephone companies to provide IPTV and the faster download speeds to compete with cable carriers.

The GOC has an incredible value proposal to consider from the Internet service providers: ensure wholesale access to FTTN and FTTH is preserved, and ISPs will deploy the infrastructure, with the necessary upload speeds, required by Canadians to participate in the digital economy.

*** END OF DOCUMENT ***