BROADCASTING AND TELECOMMUNICATIONS LEGISLATIVE REVIEW

SUBMISSION OF CANADIAN NETWORK OPERATORS CONSORTIUM INC. TO THE BROADCASTING AND TELECOMMUNICATIONS LEGISLATIVE REVIEW PANEL

11 JANUARY 2019

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EXECUTIVE SUMMARY[1]

ES-1. CNOC is hereby filing its submission with the Broadcasting and Telecommunications Review Panel, which has been tasked with reviewing Canada's broadcasting and telecommunications legislation. CNOC is proposing amendments to the *Telecommunications Act*, *Broadcasting Act*, *Radiocommunication Act*, and *CRTC Act*.

ES-2. CNOC represents the interests of service-based competitors who rely upon wholesale inputs from the Incumbents in order to compete effectively against these same Incumbents. This reliance upon wholesale inputs reflects the determinations of the Commission that the Incumbents control essential facilities, including access facilities to end-users, that are not capable of being duplicated by reasonably efficient competitors.

ES-3. Without the presence of service-based competitors in the marketplace, Canada's telecommunications market would be entirely dominated by the Incumbents.

ES-4. Unfortunately, service-based competitors have had immense difficulties over the last couple of decades in obtaining access to the wholesale inputs that they need on reasonable terms and conditions, and in a timely fashion. This has led to the Incumbents enjoying multi-year head starts in the provision of retail services to Canadians.

ES-5. For example, in relation to wholesale service provided over a certain access technology, known as FTTN, which is used to provide Internet access to end-users, it took service-based competitors over ten years before they were provided access on reasonable terms and conditions. However, to this day, the Commission has not finalized the terms and conditions applicable to FTTN despite its increasing obsolescence.

[1] Terms not defined in the Executive Summary are defined in the body of the submission.

ES-6. A much more serious problem has emerged with respect to the ongoing inability of service-based competitors to access the FTTP facilities of the Incumbents on reasonable terms and conditions. FTTP is technology that involves a pure fibre connection between the end-user's premises and the telecommunication service provider's network. Due to this pure fibre connection, the speeds that are obtainable over it are orders of magnitude greater than the speeds of the past and even present. In fact, FTTP is already allowing end-users to access unprecedented speeds.

ES-7. However, despite the Incumbents starting to deploy FTTP in their own networks as early as 2010, service-based competitors have been continually denied access to this technology due to having to spend years fighting the Incumbents before the Commission to prove that FTTP qualified as an essential facility. Even once it was established that FTTP was an essential facility, service-based competitors remain unable to access it due to completely unworkable terms and conditions that have been put forward by the Incumbents.

ES-8. To this day, CNOC and other service-based competitors continue to fight for effective access to FTTP, despite the fact that it has been nine years since the Incumbents started deploying it in their own networks and the Commission has already determined that FTTP is an essential facility.

ES-9. The lack of access to FTTP has become an existential crisis for service-based competitors as subscribers are migrating in droves towards FTTP connections, despite the fact that they must pay extremely inflated rates for this access due to the lack of competitive choice. Many CNOC members have reported subscriber losses of over 50% in the last few years .

ES-10. The years that it took service-based competitors to obtain effective access to FTTN, and the ongoing lack of access to FTTP, is one of the reasons why sustainable competition has not

developed in Canada's fixed broadband market and the overwhelming majority of the market remains concentrated in the hands of the Incumbents.

ES-11. However, even if effective FTTP access was granted today, there would still be significant barriers to effective competition in Canada's telecommunications market that would need to be overcome.

ES-12. The Incumbents do not share sufficient technical and commercial information with their wholesale customers to allow their wholesale customers to effectively carry on business.

ES-13. Moreover, there are insufficient data barriers between the wholesale and retail arms of the Incumbents. CNOC members have reported that this has led to the Incumbents engaging in anti-competitive conduct whereby they use information that they could have only obtained from their wholesale function to target service-based competitors' subscribers.

ES-14. Another problem is that even if a wholesale service is technically made available to service-based competitors, it is often provided with such pervasive quality of service issues that the ability of the service-based competitor to gain market share is completely handicapped. For example, Incumbents often takes days to effect installations or repairs, and do not provide service-based competitors with any reasonable indication as to when their technicians will attend at the end-user's premises, thus requiring the customers of service-based competitors to spend the entire day waiting for a technician that may or may not show up.

ES-15. A further barrier to competition is Incumbent gaming of wholesale rates whereby the Incumbents will propose wholesale rates that are not consistent with the Commission's established costing methodologies. This most notoriously occurred with respect to FTTN services whereby it was eventually determined, after years of litigation before the Commission, that the Incumbents

had willfully ignored the Commission's costing directives. The end-result was that the Commission ended up slashing wholesale rates charged by the Incumbents by up to 85% in some instances, but this took over ten years for service-based competitors to achieve.

ES-16. Another barrier to the development of effective competition in Canada's fixed broadband market is the lack of access to passive infrastructure and property needed for the deployment of telecommunications infrastructure. This occurs, for example, with provincially regulated electric companies that often refuse to grant access to their power poles on reasonable terms and conditions to telecommunications service providers. To the extent that there is any open constitutional issue as to the extent of the federal government's jurisdiction over provincially regulated passive infrastructure necessary for the deployment of telecommunications (such as hydro poles), CNOC recommends that a reference be directed to the Supreme Court of Canada on this matter.

ES-17. Finally, the lack of access to the mobile wireless infrastructure of the National MNOs such that service-based competitors can operate as MVNOs, which is a type of service-based competitor unique to mobile wireless markets, also inhibits the development of effective competition in the fixed broadband market as these two markets are complementary and end-users often wish to obtain all their services from one provider.

ES-18. CNOC notes that it has been repeatedly established by the Commission that mandated wholesale access to fixed broadband facilities does not negatively impact incentives to invest in broadband infrastructure. This has been borne out by the actions of the Incumbents themselves, who have continued to invest after every major decision requiring them to grant wholesale access to service-based competitors.

ES-19. Although competition in Canada's fixed broadband market is seriously threatened by the ongoing lack of access to FTTP as well as the other barriers to effective competition described above, at least service-based competitors have been able to enter the market and eke out very small

market shares for themselves. In contrast, sufficient competition has completely failed to develop in Canada's market for mobile wireless.

ES-20. Canada's mobile wireless market is amongst the most concentrated in the world, with Bell Canada, TELUS, and Rogers collectively controlling around 92% of the market. Over a decade of effort by the Commission and the federal government to introduce greater competition has not made any dent in these dominant positions. The result is predictable. According to a number of different sources, Canadians pay either the highest, or amongst the very highest, prices for mobile wireless services in the country.

ES-21. This lack of competition primarily stems from the Commission's decision not to mandate access to the mobile wireless infrastructure of the National MNOs such that service-based competitors can operate as MVNOs, a step that has been taken in countless other jurisdictions across the world, and which has had no negative impacts on investment in mobile wireless infrastructure.

ES-22. Indeed, when looking at international comparisons, Canadians pay amongst the highest rates in the world for both fixed broadband and mobile wireless services and Canada's wholesale regulations are comparatively weak compared to many other countries. In the case of the United Kingdom for example, which routinely ranks amongst the top jurisdictions for the affordability of telecommunications services, the incumbent telephone company was functionally separated.

ES-23. A variety of different sources, including the Commission's and ISED's own data, demonstrate that greater competition and a greater number of service providers, particularly the presence of service-based competitors, results in more affordable prices for telecommunications services.

ES-24. However, service-based competitors do not just contribute to improvements in affordability, but also make significant innovations in the provision of telecommunications services to Canadians. CNOC members in particular have often been at the forefront of introducing new innovations in telecommunications to Canadians, which the Incumbents have only adopted many years later.

ES-25. Competition also increases the uptake and consumption of telecommunications services and adopting a pro-competitive regulatory framework is actually a requirement of the recently negotiated USMCA.

ES-26. While CNOC and others are fighting for measures to enhance competition before the Commission, the Competition Bureau, and the courts, legislative reform offers the most durable means of obtaining sustainable competition. Therefore, CNOC's proposed legislative reforms are primarily focused upon laying the groundwork for sustainable competition in Canadian telecommunications and broadcasting.

ES-27. CNOC accomplishes this by proposing reforms to Canada's communications statues that recognize the legacy of monopolies in Canadian telecommunications and seek to restrain the ongoing market power that these former monopolies possess.

ES-28. Aside from laying the groundwork for sustainable competition, CNOC has also proposed numerous improvements to Canada's telecommunications legislation designed to modernize it, enhance procedural fairness, harmonize the different processes and procedures, remove outdated or unnecessary legislation, and simply the language. Changes aimed at the same objectives are also being proposed to Canada's other communications legislation as well.

ES-29. A summary of CNOC's specific proposed legislative changes may be found in Appendix 13 to this submission, which is incorporated by reference into this Executive Summary.

1.0 INTRODUCTION AND STRUCTURE OF SUBMISSION

1.1 Introduction

1. Canadian Network Operators Consortium Inc. ("CNOC") is hereby filing its submission with the Broadcasting and Telecommunications Legislative Review Panel ("Panel"), which has been tasked with reviewing Canada's broadcasting and telecommunications legislation. CNOC intends to participate in any further process that the Panel may decide to implement.

2. CNOC is a not-for-profit corporation, incorporated under the *Canada Not-for-profit Corporations Act*.[2] Its statement of purpose includes the following objects:

1. To represent the interests of those bodies corporate in Canada that own or operate communications networks, in whole or in part, and are involved in the competitive provision of communications services to the public over those networks;

2. To promote innovation and productivity in Canada, as well as Canada's international competitiveness through the removal of barriers to increased competition in the provision of communications services;

3. To influence the development of laws and regulations, regulatory and judicial determinations, as well as public policy affecting communications in Canada;

4. To be the recognized and visible authority on the Canadian provision of competitive communications services;

5. To ensure that high levels of knowledge, training and ethics are adopted by Canadian competitive communications service providers; and

6. To increase the level of competitive communications services business in the Canadian economy.[3]

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[2] S.C. 2009, c. 23.

[3] Articles of Continuance of Canadian Network Operators Consortium Inc. dated May 15, 2013.

7. It currently has 34 members representing independent[4] telecommunications service providers[5] ("TSPs") of all sizes, including the largest independent TSPs in Canada.[6] While all CNOC members are also Internet service providers ("ISPs") and many also provide voice over Internet Protocol ("VoIP") services, a number of them also provide traditional circuit switched telecommunications services. Various CNOC members focus on residential markets, others focus on business markets and a few focus on both. CNOC members CNOC's profile also includes members that have also entered the broadcasting distribution market via Internet Protocol television ("IPTV") platforms. In addition, to providing retail telecommunications and broadcasting services to consumers, some also serve as wholesalers to other TSPs. One member[7] has even established a mobile wireless network operator affiliate[8] to serve Canada's North[9] the most rugged, sparsely populated part of Canada, featuring the harshest climate in the country.

8. All CNOC members compete vigorously with the Incumbent Local Exchange Carrier ("ILEC") and Cable Carriers (collectively, "Incumbents")[10] and all of them are reliant on obtaining wholesale broadband services to provide retail services. At this time, CNOC members have not been able to obtain wholesale access to the mobile wireless platforms of the large national wireless carriers.[11]

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4 By independent we mean that they are not affiliated with any of the large incumbent telephone companies, namely Bell Canada ("Bell"), Northwestel Inc. ("Northwestel"), Saskatchewan Telecommunications ("SaskTel") and TELUS Communications Inc. "TELUS"), or with any of the large cable company incumbents, namely Bragg Communications Inc. o/a Eastlink "Eastlink"), Cogeco Communications Inc. ("Cogeco"), Rogers Communications Inc. ("Rogers"), Shaw Communications Inc. ("Shaw"), and Videotron Ltd. ("Videotron").

5 Telecommunications service providers and TSP are used interchangeably throughout this submission.

6 These are Distributel Communications Ltd., Primus Management ULC and TekSavvy Solutions Inc.

7 Iristel Inc. ("Iristel").

8 Ice Wireless Inc. ("Ice Wireless").

9 Specifically, Canada's three Territories.

10 For the purposes of this submission, "Incumbents" refers to both Incumbent Local Exchange Carriers "ILECs", which includes Bell Canada (including the operations that were previously operated by Bell Aliant Regional Communications, Limited Partnership and MTS Inc., collectively "Bell"), Northwestel Inc., TELUS Communication Inc. and Saskatchewan Telecommunications and the Cable Carriers including Bragg Communications Inc. c.o.b. Eastlink ("Eastlink"), Rogers Communications Canada Inc. ("Rogers"), Cogeco Communications Inc. ("Cogeco"), Quebecor Media Inc. on behalf of its affiliate Videotron Ltd. ("Videotron") and Shaw Cablesystems G.P. For simplicity, this submission strives to refer to Incumbents generally as much as possible.

11 Namely, Bell, Rogers, and Telus.

9. Although the presence of CNOC members in the marketplace has provided increased affordability, choice and service innovation to the marketplace,[12] the overall impact of competition in the communications sectors has yet to reach its full potential and so Canada is underperforming in wireline broadband and mobile wireless measures.[13] The reason for this underperformance is the weakness of the mandated wholesale frameworks in Canada. Despite many efforts made by the Canadian Radio-television and Telecommunications Commission ("Commission or "CRTC") to construct robust mandated wholesale wireline broadband regimes, the current legislative framework is not robust enough to support sufficient progress in this area given the Incumbents focus on thwarting better regulation aimed at increasing competition at every turn. The result, when it comes to wholesale regulation, has often been too little, too late,[14] and in some cases no competition at all.[15]

10. Accordingly, a primary focus of this submission is to put forward a legislative framework that will promote increased competition in the provision of telecommunications and broadcasting services in Canada in a more effective and timely manner. CNOC's submissions are comprehensive and include both the general principles that CNOC is promoting[16] and the detailed legislative amendments required to give effect to them.[17] In addition, CNOC has conducted a comprehensive review of applicable legislation[18] in order to achieve a number of other ancillary, yet very important objectives, including ensuring that:

- Its proposals will fit well within any comprehensively reformed legislation;
- The reformed legislation will be complete, cohesive and based on sound and stable principles, such that it will not require significant amendment for many years;

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12 See section 8.1 of this submission.

13 See parts 3.0, 5.0, and 7.0 of this submission, as well as Appendix 2, and the expert reports attached to Appendices 3 and 4.

14 See parts 2.0 and 4.0 which detail the difficulties that service-based competitors had have in achieving effective wholesale regulation providing access to various essential facilities controlled by the Incumbents.

15 See Part 5.0 that describes how service-based competitors still do not have any access to the mobile wireless infrastructure of any of Canada's Mobile Network Operators, which has resulted in the market for mobile wireless being almost entirely controlled by just three Incumbents: Bell Canada, TELUS, and Rogers.

16 See parts 2.0, 4.0 and 8.0 for general principles.

17 See parts 10.0 and 11.0 for specific legislative amendments, as well as Appendices 8 through 12.

18 *Telecommunications Act*, SC 1993, c 38 ["Telecommunications Act"], *Broadcasting Act*, SC 1991, c 11 ["Broadcasting Act"], *Radiocommunication Act*, RSC 1985, c R-2 ["Radiocommunication Act"], *Canadian Radio-television and Telecommunications Commission Act*, RSC 1985 c C-22 ["CRTC Act"].

- Statutory language among various statutes speaking to the same matters will be harmonized and other provisions clarified to the greatest extent possible to avoid pitfalls that could lead to expensive and unnecessary litigation that could thwart effective and efficient regulation of communications markets;

- Where it makes sense and does not violate the other objectives cited, our proposals are based on and incorporate the best elements of previous work in the area of legislative reform, such as the "2006 Telecommunications Policy Review Panel Final Report"[19] and "A Model Act to Implement the Regulatory Recommendations of the Telecommunications Policy Review Report"[20]; and

- Certain legislative reform that have been proposed therein or at various times and could be harmful to Canadian are not proposed for implementation.

11. Finally, given that the legislative reform process is still at an early stage and it will likely take some time for meaningful reform to be implemented, CNOC is also proposing, as an interim measure, either the repeal or amendment of the current Telecommunications Policy Direction[21] ("Policy Direction") pending further legislative reform in order to ensure that the Commission's hands are not tied in shoring up wholesale regulation as necessary to promote competition under the current legislative framework.

1.2 Structure of Submission

12. Part 2.0 of this submission provides some additional background information on CNOC and service-based competition. Part 2.0 also examines the challenges that service-based competitors have experienced by examining the regulatory history of mandated access to two essential fixed wireline facilities controlled by the Incumbents, Fibre-to-the-Node ("FTTN") and Fibre-to-the-Premises ("FTTP").

13. Part 3.0 of this submission examines the current state of competition in Canada's fixed broadband market and demonstrates that the market remains dominated by a handful of Incumbents.

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[19] Telecommunications Policy Review Panel Final Report, March 2006 ["2006 TPRP Report"].

[20] A Model Act to Implement the Regulatory Recommendations of the Telecommunications Policy Review Report ["2007 Model Act"].

[21] *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives* (SOR/2006-355) ["Policy Direction"].

14. Part 4.0 examines in detail some of the many barriers that are preventing the establishment of effective competition in Canada's fixed broadband market.

15. Part 5.0 examines the current state of competition in Canada's mobile wireless market.

16. Part 6.0 establishes that mobile wireless service is not a substitute for wireline broadband access.

17. Part 7.0 provides international comparisons both in terms of the price of telecommunications services as well as different regulatory regimes.

18. Part 8.0 discusses the importance of competition to Canadian telecommunications.

19. Part 9.0 sets out how legislative reform can enhance competition in Canadian telecommunications.

20. Part 10 discusses the reasons for CNOC's proposed changes to the *Telecommunications Act*. The specific language that CNOC is proposing to implement these changes is set out in Appendix 8.

21. Part 11 discusses the reasons for CNOC's proposed changes to the *Broadcasting Act*, *Radiocommunication Act*, and the *CRTC Act*. The specific language that CNOC is proposing to implement these changes is set out in Appendices 9, 10, and 11, respectively.

22. CNOC is proposing that the Governor in Council's power to issue policy directions to the Commission be rescinded. As an interim measure, the current Policy Direction should also be rescinded. In the alternative, as an interim measure to improve the state of competition, CNOC has proposed wording for a new policy direction in part 12.0 The specific language that CNOC is proposing for a possible new policy direction is set out in Appendix 12.

23. Part 13 sets out the reasons why CNOC believes that the Panel should institute further process as part of its review of Canada's telecommunications and broadcasting legislation and provides recommendations for that further process, more specifically, a reply stage.

24. Part 14 is the conclusion to this submission.

25. CNOC's submission also includes the following appendices in support of the submissions made herein:

a. Appendix 1: a report by Dr. Martyn Roetter examining the current state of competition in fixed wireline and mobile wireless services in Canada as well as in other industrialized countries, as well as regulatory approaches in various jurisdictions ("Roetter Report");

b. Appendix 2: a report by Dr. Roger Ware on competition issues in facilities based versus service-based competition, and disaggregated wholesale HAS and transport ("Ware Report");

c. Appendix 3: the response of CNOC to Bell Canada's petition to the Governor in Council to vary Telecom Regulatory Policy 2015-326 ("TRP 2015-326"), including a report by Analysis Group conducting an economic review of Bell Canada's (report referred to as "Analysis Group FTTP Report");

d. Appendix 4: the supplemental intervention of Ice Wireless Inc. to the proceeding initiated by Telecom Notice of Consultation 2017-259 ("TNC 2017-259"), including a report by Analysis Group conducting an economic analysis of the impact of mandated wholesale access to mobile wireless facilities ("Analysis Group MVNO Report");

e. Appendix 5: CNOC's submission to the Competition Bureau's Broadband Market Study;

f. Appendix 6: CNOC's Part 1 Application Review and Vary Telecom Regulatory Policy 2015-326 and Telecom Decision 2016-379 ("TD 2016-379") (application referred to as "CNOC's Part 1 Application");

g. Appendix 7: CNOC's intervention to the proceeding initiated by FairPlay Canada's Part 1;

Appendix 8: CNOC's proposed amendments to the *Telecommunications Act*[22];

h. Appendix 9: CNOC's proposed amendments to the *Broadcasting Act*[23];

i. Appendix 10: CNOC's proposed amendments to the *Radiocommunication Act*[24];

j. Appendix 11: CNOC's proposed amendments to the *Canadian Radio-television and Telecommunications Commission Act*[25] ("*CRTC Act*")]

k. Appendix 12: CNOC's proposed amendments to the Policy Direction[26]; and

l. Appendix 13: A summary of CNOC's answers to the specific questions posed in the Terms of Reference to the present review of Canada's telecommunications legislation.

26. CNOC recently retained Dr. Martyn Roetter to prepare the Roetter Report, which is attached as Appendix 1. Out of all the appendices, the Roetter Report is the most current, although CNOC continues to rely on the evidence in all of the appendices. The Roetter Report examines the current state of competition in fixed wireline and mobile wireless services in Canada as well as in other industrialized countries and finds that Canada is lagging behind on a number of metrics. The Roetter Report examines the regulatory practices for telecommunications in "best-in-class" jurisdictions and provides recommendations as to how Canada can enhance the level of competition in the two broadband markets in Canada, thereby achieving better outcomes for end-users. Dr. Roetter's curriculum vitae is included with the Roetter Report.

27. The Roetter Report makes a compelling case for improving the state of competition in telecommunications in Canada.

2.0 BACKGROUND INFORMATION

28. The purpose of this section 2.0 is to provide additional background information to the Panel such that it better understands the nature of the contributions that CNOC members make to

[22] SC 1993, c 38.
[23] SC 1991, c 11.
[24] RSC 1985, c R-2.
[25] RSC 1985, c C-22.
[26] SOR/2006-355.

Canadian society, as well as CNOC's reasoning regarding the still deficient state of competition in Canada and the legislative reforms that CNOC is proposing to correct those deficiencies.

29. Firstly, CNOC provides a more detailed overview of how CNOC members compete. Secondly, CNOC provides an overview of the most important wholesale input to its members, which is wholesale high-speed access ("HSA") services. Thirdly, CNOC describes the regulatory history of two different essential facilities controlled by the Incumbents that service-based competitors must access in order to be able to provide services to end-users: FTTN and FTTP.

2.1 CNOC and service-based competitors

30. As noted above, CNOC is an incorporated industry association that represents the interests of its membership, which currently consists of thirty-four telecommunications service providers that operate from coast to coast to coast.[27]

31. CNOC members are diverse both in terms of their size and the services that they offer. While all of CNOC's members offer retail Internet access services, many also offer voice services, broadcasting services, and three offer mobile wireless services.[28] In order to deliver these services, the majority of CNOC's members rely upon certain wholesale inputs provided by the Incumbents. However, some of CNOC's members rely primarily upon their own facilities to deliver telecommunications services and many rely upon a mix of their own facilities and wholesale inputs.

32. All of CNOC's members, and hundreds of other independent TSPs that compete throughout Canada, rely on at least some wholesale inputs that can only be provided by the Incumbents and thus, as set out more fully below, ensuring access to these wholesale inputs on

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[27] An up to date list of CNOC's members can be found at https://www.cnoc.ca/.

[28] In addition to Ice, Execulink Telecom Inc. ("Execulink") is a mobile network operator in a small territory in Southwestern Ontario in which it also operates as a small incumbent local exchange carrier and small incumbent cable company. Execulink competes with other TSPs both inside and outside of its small incumbent operating territory. For its part, Primus Management ULC provides mobile wireless services under a mobile virtual network operator ("MVNO") agreement reached with a mobile network operator some years ago. No other CNOC member has been able to negotiate an MVNO agreement.

reasonable terms and conditions is vital to the effectiveness of competition in the provision of communications services in Canada.

33. Due to the overwhelming importance of wholesale inputs to the business models of most of its members, CNOC will be referring to competitors such as its members that rely significantly upon wholesale inputs as "service-based competitors" throughout this submission, unless otherwise indicated. However, CNOC wishes to reiterate that, while it is using the term "service-based competitors" to refer to its members and the many other TSPs that rely upon wholesale inputs for their business models, its members and other competitive TSPs have deployed and own or operate other telecommunications facilities, and some also deployed significant telecommunications transmission and access facilities as well.

34. For service-based competitors that operate as ISPs, the most important wholesale input is wholesale HSA service. Wholesale HSA service allows service-based competitors to connect the last mile access facilities (i.e., the wire, whether it be coaxial cable, copper twisted pair or fibre, that connects the customer premises with the Incumbent's telecommunications network) to the networks of the service-based competitors so that they can provide broadband Internet access and other broadband services such as VoIP and IPTV to end-users.

35. The common denominator amongst all of CNOC's members is that they are competitors to Canada's telecommunications Incumbents. As explained further below, service-based competitors such as CNOC members play a vital role in Canadian telecommunications and absent their presence the Incumbents would have free reign to abuse their dominant positions, resulting in less choice and higher prices for telecommunications services for Canadians.

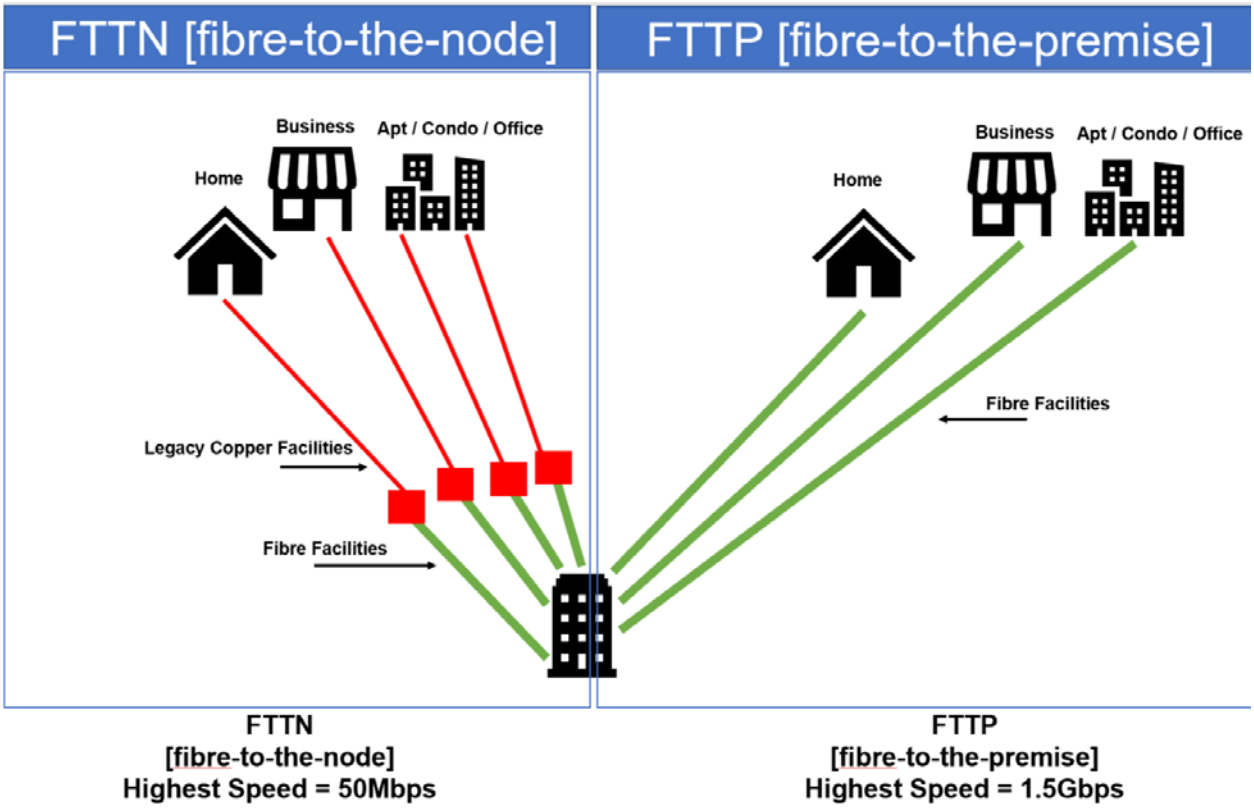
36. Canada's current telecommunications legislation enabled the Commission to create a regulatory framework that allowed competitors to enter markets for various telecommunications services, starting with long distance services, then local telephony and more recently, Internet access services. Unfortunately, the state of competition in telecommunications in Canada is now at a turning point, and absent significant changes to the regulatory framework, it is unlikely that service-based competitors will survive the next few years. The removal of service-based

competitors from the market would result in a significant lessening and prevention of competition in Canada's markets for both telecommunications and broadcasting services.

37. The fundamental problem is that the playing field is still entirely slanted towards Canada's Incumbents. The Incumbents continue to enjoy multi-year head starts on new technologies before they are required to provide wholesale access to competitors. Once access is finally granted from a legal perspective, it is often on initial terms and conditions that are so unworkable that service-based competitors are, practically speaking, unable to make reasonable use of that access. Even in situations where the terms and conditions are workable, the Incumbents will often provide wholesale access that suffers from such pervasive quality of service issues that service-based competitors are unable to provide a sufficiently high quality of service, through no fault of their own, to end-users such that they are able to gain market share.

38. While this uneven playing field has existed since the introduction of competition in Canada's telecommunications market, it has become particularly acute with the introduction of FTTP technology, which is a wireline technology that provides unprecedented broadband speeds, and consumers' increasing demands for constant access to mobile wireless networks.

39. Immediately below, CNOC has inserted a diagram that explains the differences between FTTP, and FTTN, which is an older technology that is increasingly being replaced by the Incumbents with FTTP:



40. As the diagram above demonstrates, with FTTN fibre only reaches part way to the customer premises, to a "node", and legacy copper facilities reach from the node to the customer premises. The highest speeds available over Bell's FTTN are 50 Mbps download, and approximately 10 Mbps upload. However, in the case of FTTP, the connection between the telecommunications service provider's network and the customer premises is exclusively fibre, which enables unprecedented speeds, as well as equal upload and download speeds. CNOC notes that while the diagram above indicates that the highest speed obtainable over FTTP is 1.5 Gbps download and upload, that is just the capability present in the market today. In future years, as the technology develops, FTTP will be capable of supporting much greater speeds.

41. As explained further below, despite the fact that the Commission has acknowledged at least since 2015 that reasonably efficient competitors, whether they be facilities-based or service-based, are unable to be likely to reproduce the FTTP or mobile wireless networks of the incumbents, service-based competitors still do not have effective wholesale access to either of these technologies.

42. Currently, most CNOC members must rely upon wholesale access to increasingly outdated ILEC FTTN technology in order to provide service to their end-users, and often with pervasive quality of service issues that undermine their effectiveness in the marketplace. To the extent that coaxial cable technology is able to keep up with FTTN or FTTP technology, current regulatory barriers seek to threaten the vital access required by CNOC members to these facilities at the increasing speeds demanded by consumers, as well. It should also be noted that for service-based competitors the switching costs of moving an entire customer base from a cable carrier platform that relies on the availability of coaxial cable to an ILEC FTTN or FTTP platform or vice versa is excessive, making such switching impractical. Moreover, there are still many areas of the country, especially rural and remote ones, where cable is not available. In those cases, only Incumbent telephone company twisted copper pair, FTTN or FTTP technologies are available, depending on what that Incumbent has deployed.

43. As explained more fully below, the lack of access to FTTP is crippling service-based competitors. The Commission's 2018 Communications Monitoring Report ("2018 CMR") indicates that fully 39% of Canadians are now subscribing to Internet services with speeds above 50 Mbps.[29] Many service-based competitors are no longer able to compete for these customers due to their inability to access Incumbent FTTP technology.

44. Despite these difficulties, service-based competitors continue to bring value by providing innovative and unique telecommunications services to end-users at affordable rates. Unfortunately, the very survival of many service-based competitors is threatened by the ongoing lack of access for service-based competitors to Incumbent FTTP facilities on workable terms and conditions.

45. CNOC has recently been fighting to address the pervasive issues described above that undermine the effectiveness of competition in Canada's telecommunications markets through submissions to both the Commission and the Competition Bureau, which it has attached as

[29] Canadian Radio-television and Telecommunications Commission, "Communications Monitoring Report 2018", Figure 5.4, https://crtc.gc.ca/eng/publications/reports/policymonitoring/2018/cmr3c.htm#f504, ["2018 CMR"].

Appendices "5" and "6" respectively. Now, CNOC is pleased to make its case for reform to the underlying legislative framework to the Panel.

2.2 The constituent elements of wholesale HSA services

46. As noted above, the most important input for service-based competitors is wholesale HSA service.

47. There are two different models of wholesale HSA services: (i) the aggregated HSA model; and (ii) the disaggregated HSA model.

48. Currently, competitors rely almost exclusively on the aggregated HSA model. Aggregated HSA services include the following three main components: access, aggregated transport and an interface component. Each component warrants further discussion.

49. First, the access component allows competitors to reach end-users via the last-mile facilities (e.g., copper (or joint fibre-copper) or coaxial cable[30]) that connect the wholesale HSA provider's network, always i.e., an Incumbent, directly to end-users' premises. Second, aggregated transport provides the competitor with packet-based transport throughout the wholesale HSA's provider's network from the point-of-interconnection[31] ("POI") interface at which the service-based competitor connects to the access components of the wholesale HSA provider's network. This transport component is aggregated or bundled in that it includes as many transport paths as are necessary to reach the last-mile access facilities. Notably, the aggregated transport component is highly usage sensitive and drives the capacity-based costs of aggregated wholesale HSA services. Finally, the interface component consists of the actual physical interconnection port at the wholesale HSA service provider's (i.e., Incumbent's) POI.

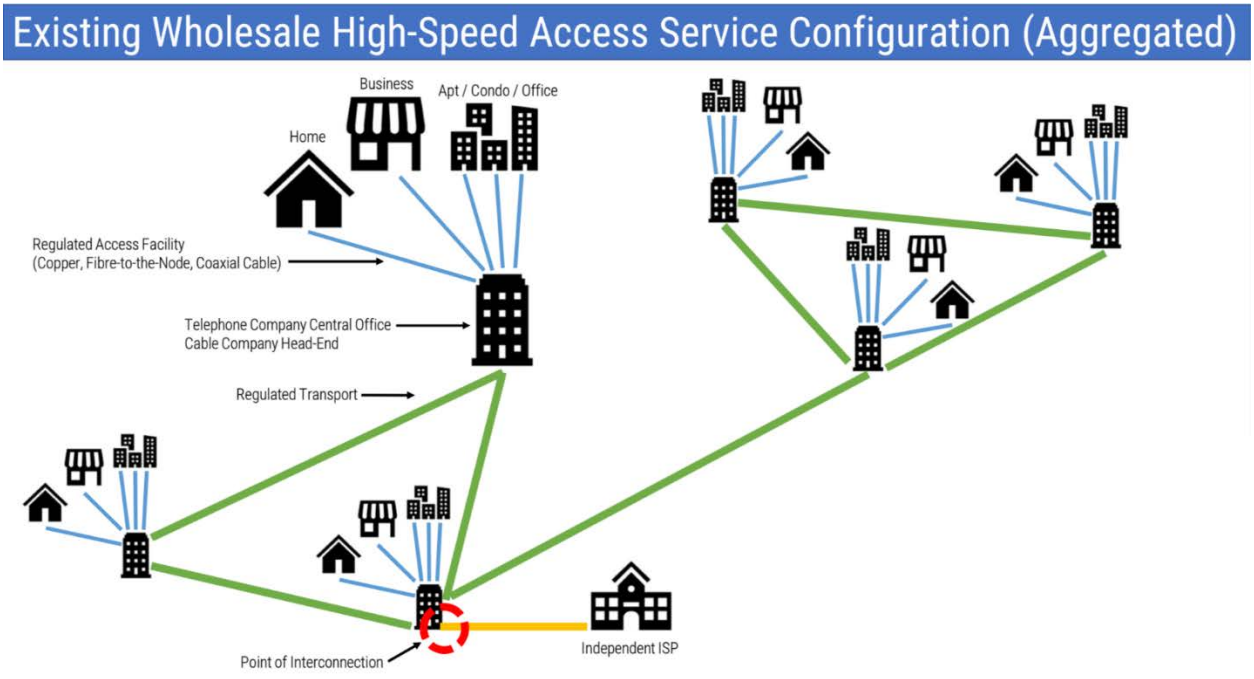
50. In contrast, a fully disaggregated HSA model includes only access and interface components. The main distinguishing feature of full disaggregation is that it does not include any form of transport component, aggregated or otherwise. This has two practical implications for wholesale HSA customers: (1) wholesale HSA customers must supply their own transport

[30] There are also FTTP last-mile access facilities, however the Commission has determined that competitors may only provide services over such facilities via the disaggregated HSA model.

[31] Note that there are two different kinds of POIs: Bell POIs are called Central Offices ("COs") while the Cable Carrier's POIs are called "head-ends".

throughout their coverage area; and (2) given that transport is not aggregated or bundled, wholesale HSA customers must establish a presence at many Incumbent POIs to duplicate existing coverage areas served via the aggregated model.

51. Below, CNOC has provided a diagram explaining how aggregated wholesale HSA service functions:



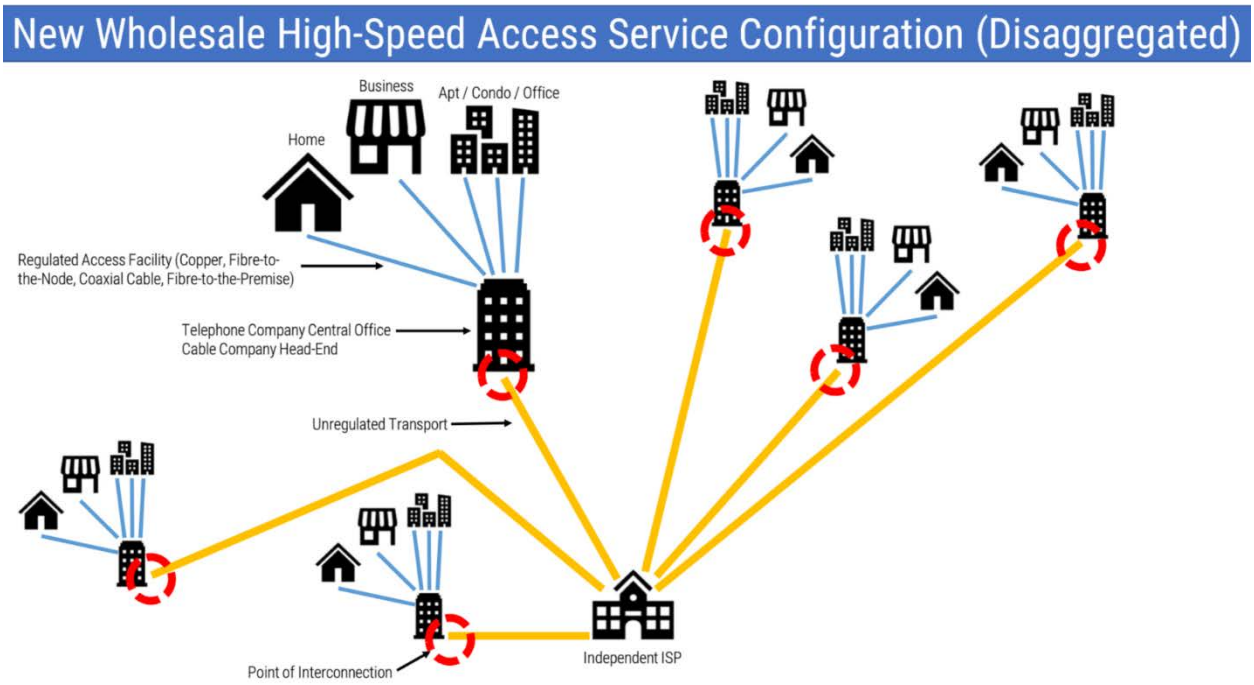
a. Aggregated wholesale HSA has the following service features:

i. Includes regulated access and transport components;

ii. Allows use of copper, FTTN, and coaxial cable access facilities as an input to provide retail broadband services; and

iii. Single point of interconnection required to service incumbent's footprint (e.g., Bell Canada's 891+ network locations in Ontario and Quebec, or 36 for Rogers in Ontario, 53 for Videotron in Quebec and 60 for Cogeco in Ontario and Quebec.)

52. Below, CNOC has provided a diagram explaining how disaggregated wholesale HSA service functions:



a. Disaggregated wholesale HSA has the following service features:

   i. Includes regulated access component;

   ii. Allows use of copper, FTTN, coaxial cable, and FTTP access facilities as an input to provide retail broadband services; and

   iii. Point of interconnection required to <u>each location separately</u> to service incumbent's footprint (e.g., Bell Canada's 891+ network locations in Ontario and Quebec, or 36 for Rogers in Ontario, 53 for Videotron in Quebec and 60 for Cogeco in Ontario and Quebec.)

53. At the moment, the Commission has only required the roll-out of disaggregated HSA services in Ontario and Quebec, although it is in the process of doing the same for other provinces. Service-based competitors are currently only able to access the Incumbent's FTTP facilities via disaggregated HSA, although, as explained further below, this is not a workable wholesale model and thus no service-based competitors are actually able to access these FTTP facilities at this point in time.

54. For technical reasons, it turns out that not all Cable Carrier head-ends can accommodate POIs and there are also fewer of them in total than in the case of Bell, and thus, the disaggregated HSA services of the three major Cable Carriers operating in Ontario and Quebec (namely, Cogeco,

Rogers and Videotron) must, by necessity, include some degree of transport aggregation. This means that the Cable Carriers provide complete coverage of their territories in Ontario and Quebec with a total of 149 major head-ends.[32] By contrast Bell's wholesale HSA service is technically capable of much higher level of disaggregation, Accordingly, full coverage of its operating territory throughout Ontario and Quebec via its disaggregated HSA requires interconnection with almost each one of it its 1016 COs[33] in those provinces.[34]

2.3 The regulatory history of FTTN

55. In the immediately preceding sections, CNOC described its membership and the types of competitors that it primarily represents. CNOC also explained the technical basis for the most important wholesale input for most service-based competitors, wholesale HSA services. The regulatory history of wholesale HSA service delivered over two different technologies, FTTN and FTTP, is illustrative of the significant problems and timelines service-based competitors must deal with in obtaining access to Incumbent facilities and underpin CNOC's positions throughout this submission.

56. Regulatory and competitive lessons can be learned from the history of FTTN facilities regulation. This section summarizes the major milestones in FTTN regulation. More importantly, this section highlights the avoidable competitive harms that resulted from flawed regulation that did not proactively eliminate the potential for Incumbent head-starts in the retail market.

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[32] These cable head-ends are listed in: Rogers Access Services Tariff, CRTC 21530, Part G, Item 704; Cogeco TPIA Tariff CRTC 26400, Item 104; and in a spreadsheet included in Videotron Tariff Notice 53.

[33] Note: This number of Bell COs is cited in a Bell response to a Commission request for information labeled Bell Canada(CRTC)22Jul15-1 Telecom Regulatory Policy CRTC 2015-326, CRTC File No. 8663-C12-201313601, available at https://services.crtc.gc.ca/pub/DocWebBroker/OpenDocument.aspx?Key=108884&Type=Notice.

[34] A further note on CO numbers: Bell's above referenced response to the Commission's request for information noted that 1016 was the total number of Bell COs as at 2015 while 891 of those COs were capable of broadband using DSL and / or FTTP. However, Bell's disaggregated HSA configuration features a full level of disaggregation, it should therefore be assumed that disaggregated HSA deployment at nearly all 1016 COs would be required to reach customers throughout Bell's serving area. Nevertheless, even if the number of required interconnecting CO turned out to be 891 instead of 1016, the analysis set out in this submission concerning Bell's disaggregated HSA services would not be materially different from the analysis provided assuming 1016 COs.

57. FTTN facilities have succinctly been defined in Telecom Notice of Consultation 2013-551[35] ("TNC 2013-551") as follows: "FTTN technology upgrades the telephone company's access network by extending fibre-based facilities closer to the customer's premises (but not directly to the premises as with FTTP) in order to provide increasingly high-speed access services."[36]

58. The history of FTTN deployment and regulation can be summarized as follows:

- Bell was offering FTTN services to its own end-users as early as 2004.[37]
- In Telecom Order CRTC 2007-22[38] ("TO 2007-22"), Bell was ordered to make its aggregated ADSL access services "available to competitors at speeds that match the speeds they offer to their retail Internet service customers (the speed-matching requirement.)"[39]
- However, this victory for competitors was short-lived as later in 2007 the Commission rescinded the speed-matching requirement as it applied to Bell and other ILECs[40] due to "the uncertainty regarding the regulatory framework for wholesale services arising from a proceeding, then underway, to review the regulation of wholesale services."[41]
- Following the rescinding of the speed-matching requirement, Bell then proceeded to limit the wholesale service speeds available to competitors to speeds below Bell's own retail offerings.[42]

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35 Telecom Notice of Consultation 2013-551, *Review of wholesale services and associated policies*, 15 October 2013 ["TNC 2013-551"]

36 *Id.* at Footnote 20.

37 BCE Inc., *2004 Annual Report*, at pg 6.

38 Telecom Order CRTC 2007-22, *Bell Canada and Bell Aliant Regional Communications, Limited Partnership for services provided in Ontario and Quebec*, 25 January 2007 ["TO 2007-22"].

39 Telecom Regulatory Policy CRTC 2010-632, *Wholesale high-speed access services proceeding*, 30 August 2010 ["TRP 2010-632"], at para 10.

40 Specifically, Bell Aliant, Saskatchewan Telecommunications, and TELUS Communications Company. See TRP 2010-632 at para 11.

41 *Id.* at para 11.

42 *Id.* at para 12.

- In June 2008, Cybersurf Corp ("Cybersurf"), a competitor and wholesale customer, filed an application to the Commission requesting that it reinstate the speed-matching requirement for all ILECs.[43]
- As a result of Cybersurf's application, in December 2008 the Commission restored the speed-matching requirement on the ILECs via Telecom Decision CRTC 2008-117 ("TD 2008-117").[44]
- However, Bell was of the view that TD 2008-117 did not require it to provide wholesale customers with access to speeds that Bell offered its own retail customers over its FTTN facilities and that the speed-matching requirement was limited to speeds available over its end-to-end copper facilities.[45]
- The Commission disagreed with Bell's interpretation and in March 2009, following another application by Cybersurf, the Commission clarified in Telecom Order CRTC 2009-111 ("TO 2009-111")[46] that the speed-matching requirement also applied to wholesale services delivered over FTTN facilities.[47]
- However, competitors' rights to access FTTN facilities still were not secure as a few days after the release of TO 2009-111, Bell, along with TELUS Communications Company petitioned the Governor-in-Council to reverse the speed-matching decisions.[48] The Commission did not seek to enforce its determination requiring wholesale access to FTTN facilities pending the resolution of this petition.
- In December 2009, the Governor-in-Council directed the Commission to reconsider its speed-matching decisions, and, in particular to reconsider whether speed-matching should apply to FTTN facilities.[49] The Governor-in-Council specifically directed the Commission to consider whether the speed-matching requirement would "unduly

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43 *Id.* at para 13.

44 Telecom Decision CRTC 2008-117, *Cybersurf Corp.'s application related to matching service speed requirements for wholesale Internet services*, 11 December 2008 at para 25 ["TD 2008-117"].

45 Telecom Order CRTC 2009-111, *Cybersurf's application related to the implementation of Telecom Decision 2008-117 regarding the matching speed requirement*, 3 March 2009 at para 4 ["TO 2009-111"].

46 TO 2009-111.

47 *Id.* at paras 12-15.

48 TRP 2010-632 at para 15.

49 *Id.* at para 16.

diminish the incentives to invest in new network infrastructure in general and, in particular, in markets of different sizes."[50]

- Finally, with Telecom Regulatory Policy 2010-632 ("TRP 2010-632")[51], issued in August 2010, the Commission affirmed that the speed-matching requirement should apply to FTTN facilities.[52] The Commission did not find that incentives to invest would be unduly impaired.[53] However, the Commission did not extend the speed-matching requirement to "fully fibre-based network solutions" such as FTTP, which had started being deployed more extensively by ILECs by then.[54]
- Importantly, the issuance of TRP 2010-632 did not actually provide competitors with meaningful access to Incumbent FTTN facilities as the Commission still needed to determine the terms and conditions, including wholesale rates, under which competitors would be able to access these facilities.
- The Commission did not grant interim approval to the tariffs filed by the Incumbents as a result of TRP 2010-632 until June 2011, when it issued Telecom Order CRTC 2011-377[55] ("TO 2011-377"). To the best of CNOC's knowledge, service-based competitors took little or no advantage of this interim regime which did not feature cost-based rates, given lingering uncertainty over what the final rates would be and whether any potentially harmful retroactive adjustment of interim rates to the final rates would occur in respect of the period when interim rates were in effect.
- The Commission did not grant final approval to the tariffs filed by the Incumbents as a result of TRP 2010-632, as well as confirm the acceptable billing models for wholesale services provided by the Incumbents until Telecom Regulatory Policy 2011-703 ("TRP

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50 *Id.* at para 17.
51 TRP 2010-632.
52 *Id.* at para 78.
53 *Id.* at paras 41-47.
54 TRP 2015-326 at Footnote 1. See also BCE Inc., *2010 Annual Report*, at pg 15.
55 Telecom Order CRTC 2011-377, *Interim rates for wholesale residential and business high-speed access services*, 15 June 2011 ["TO 2011-377"].

2011-703")[56] and Telecom Regulatory Policy 2011-704 ("TRP 2011-704")[57], which were issued in November 2011.

- As part of its determinations in TRP 2011-703, the Commission rejected a Usage Based Billing ("UBB") model whereby competitors would be charged for usage above a pre-determined cap.[58] Previously, from August 2009 to February 2011, when the Commission ordered Bell to suspend the implementation of UBB until it had determined appropriate wholesale billing models, Bell had been imposing UBB on competitors, despite significant resistance from both competitors and consumers.[59] A significant problem with the UBB model was that by imposing UBB on competitors, the Incumbents were in effect forcing the competitors to impose UBB on their own retail customers in order to recover the costs, which would eliminate the ability of competitors to differentiate themselves and to innovate unique service offerings for end-users.[60]
- Instead, in TRP 2011-703 the Commission determined that only Capacity Based Billing[61] ("CBB") or flat rate models were acceptable methods for Incumbents to bill competitors for wholesale access.[62]

- There then followed a series of regulatory battles between competitors and Incumbents lasting over two years as the Incumbents sought to delay the implementation of the Commission's determinations in TRP 2010-632, TRP 2011-703, and TRP 2011-704 and competitors sought to expedite their implementation as well as to correct various issues with the Commission's plan and related rates that were approved that made it

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56 Telecom Regulatory Policy CRTC 2011-703, *Billing practices for wholesale residential high-speed access services*, 15 November 2011 ["TRP 2011-703"] at paras 180, 190, and 192, as amended by Telecom Regulatory Policy CRTC 2011-703-1, 22 December 2011.

57 Telecom Regulatory Policy CRTC 2011-704, *Billing practices for wholesale business high-speed access services*, 15 November 2011 ["TRP 2011-704"].

58 TRP 2011-703 at paras 8-13, see also Footnote 6.

59 *Id.* at paras 8-14.

60 *Id.* at para 15.

61 Capacity-based billing has been defined by the Commission in Telecom Decision CRTC 2013-659, *Review of outstanding wholesale high-speed access service issues related to interface rates, optional upstream speed rates, and modem certification requirements*, 6 December 2013 at Footnote 1 as a billing model "wherein independent service providers pay a monthly access rate per end-user (excluding usage) and a rate for the capacity that they require to support the usage demand of their end-users."

62 TRP 2011-703 at para 62.

practically unworkable for competitors. For example, in January 2012, CNOC filed an application with the Commission seeking to modify certain determinations that, amongst other problems, hindered the ability of competitors to effectively make use of wholesale services provided over FTTN.[63] Similarly, in March 2012 Bell Canada filed an application with the Commission to increase certain elements of its wholesale rates.[64] Other Incumbents and independent service providers made their own applications.[65] It was not until February 2013, with Telecom Regulatory Policy 2013-70[66], that the Commission disposed of these various applications to review and vary the Commission's determinations.

- After all of this, the CBB rates of the Incumbent operators were still far too high for competitors to effectively compete using the Incumbent's FTTN facilities. The Commission belatedly recognized this, following an application from CNOC in which CNOC argued that "certain usage-sensitive rates for the aggregated wholesale HSA services were no longer just and reasonable"[67], and, in October 2016, with Telecom Order CRTC 2016-396[68] ("TO 2016-396") slashed the CBB rates for the Incumbents' aggregated wholesale HSA services. The specific case of the CBB rates of the Incumbent cable operator Eastlink was similarly addressed in Telecom Order CRTC 2016-448[69] ("TO 2016-448").

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63 Telecom Regulatory Policy CRTC 2013-70, *Disposition of review and vary applications with respect to wholesale high-speed access services: Introductory statement*, 21 February 2013 at para 11 ["TRP 2013-70"].

64 Telecom Decision CRTC 2013-71, *Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Application to review and vary Telecom Regulatory Policy 2011-703*, 21 February 2013, at para 1.

65 Applications were made by Bell Canada, Bell Aliant Regional Communications Limited Partnership, CNOC, MTS Inc. and Allstream Inc., Quebecor Media Inc. and Videotron G.P., Rogers Communications Partnership, Shaw Cablesystems G.P., and Telesave Communications Ltd.

66 TRP 2013-70. See also the following decisions dealing with specific applications which were all released on February 21, 2013: Telecom Decision CRTC 2013-71, Telecom Decision CRTC 2013-72, Telecom Decision CRTC 2013-73, Telecom Decision CRTC 2013-74, Telecom Decision CRTC 2013-75, Telecom Decision CRTC 2013-76, Telecom Decision CRTC 2013-77, Telecom Decision CRTC 2013-78, as well as two notices of consultation, Telecom Notice of Consultation CRTC 2013-79 and Telecom Notice of Consultation 2013-80 that were issued examining issues with the implementation of the Commission's wholesale services framework.

67 Telecom Order CRTC 2016-396, *Tariff notice applications concerning aggregated wholesale high-speed access services – Revised interim rate*, 6 October 2016, at paras 2 ["TO 2016-396"]. See also CNOC Application to make usage sensitive rates interim, 30 April 2015, CRTC File No. 8661-C182-201503946 available at https://services.crtc.gc.ca/pub/TransferToWeb/2015/8661-C182-201503946.zip.

68 TO 2016-396 at paras 27-28.

69 Note that Eastlink required additional time to file a tariff application and cost study as it had previously not been subject to requirements to file cost studies and needed to retain costing experts and the Commission granted an extension to Eastlink via a procedural letter dated 28 July 2016 (CRTC File No. 8661-C12-201504829) available

- Nonetheless, the rates established by the Commission in TO 2016-396 and TO 2016-448 are still only interim at the present time![70]

59. In sum, it took competitors over twelve years, until the issuance of TO 2016-396 and TO 2016-448, from the time that Bell Canada started offering service over FTTN facilities to its end-users in 2004 for competitors to have access to those same facilities on usable terms and conditions thus be in a position to economically match the speeds offered by Bell Canada and other Incumbents over FTTN facilities. However, to this day, there remains uncertainty over the final rates, which have yet to be established by the Commission. Ironically, FTTN facilities are increasingly becoming obsolete and being replaced by FTTP, which is being deployed by both the ILECs and to a lesser extent, the cable carriers.[71]

2.4 The regulatory history of FTTP

60. While the regulatory history of FTTN was debacle, the regulatory history of FTTP is an existential threat to the continued survival of the service-based competitors, as explained further below. CNOC emphasizes that as of January 11, 2019, no service-based competitors are able to use the FTTP facilities of the Incumbents due to the unworkable disaggregated HSA service imposed upon competitors by the Commission, albeit with good intentions. As noted above, CNOC has filed a Part 1 Application seeking to rectify the problems with the current disaggregated HSA framework on an expedited basis, which is attached as Appendix 6.

61. FTTP technology is no longer in its infancy. The regulatory history surrounding this technology platform is repeating the same kinds of patterns that were experienced with FTTN. In

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at https://crtc.gc.ca/eng/archive/2016/lt160728.htm?_ga=2.267692745.632308469.1535377409-605354119.1501867826. Eventually, in Telecom Order CRTC 2016-448, *Bragg Communications Incorporated, operating as Eastlink – Revised interim rates for aggregated wholesale high-speed access service* ["TO 2016-448"] at para 12, the Commission also slashed the proposed CBB rates of Eastlink similar to what it had done with the other Incumbents in TO 2016-396.

70 *Id.* at para 24.

71 Cable carrier network are capable of speed upgrades that match the download speeds available through FTTP today without a need to deploy fibre all of the way to the premises of end-users. Instead higher speeds are achieved in cable networks by bringing fibre close to the nodes that serve end users, placing fewer end-users on a node and upgrading equipment in cable head-ends used to connect end-users to the cable networks deliver broadband services to the end-users. However, coaxial cable is not capable of achieving the synchronized upload and download speeds of FTTP and upload speeds are much lower than download speeds on coaxial cable.

order to avoid an even more prolonged period of regulatory lag before competitors can have access to FTTP facilities on equitable terms and conditions, it is important to recognize these patterns of regulatory inefficiency and break the cycle. The legislative reforms proposed by CNOC in this submission will be an important first step towards breaking that cycle.

62. Much like the above section on FTTN, this section outlines the major milestones in FTTP regulation and highlights the avoidable competitive harms that resulted from flawed regulation that did not proactively eliminate the potential for Incumbent head-starts in the retail market.

63. First however, a definition for FTTP is warranted. The term has been defined as follows: "FTTP facilities, which include fibre-to-the-home (FTTH) and fibre-to-the-building (FTTB) facilities, bring optical fibre directly to a customer's home or building, where electronics are installed to convert optical signals to electrical signals."[72]

64. The history of FTTP deployment and regulation can be summarized as follows:[73]

- Bell commenced offering services to end-users over FTTP by 2010.[74] As noted above, while TRP 2010-632 established a right of access for competitors to the speeds available over the FTTN facilities of Incumbents, no such right existed for speeds available over FTTP.[75]
- It was not until the Commission issued TNC 2013-551 in October 2013 that the Commission turned its mind towards the prospect of competitors gaining access to the speeds enabled by FTTP.[76]
- After a very lengthy proceeding, in TRP 2015-326, which was issued in July 2015 the Commission affirmed that competitors would be able to access the FTTP facilities of Bell

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72 TNC 2013-551 at Footnote 10.
73 Note: this summary focuses predominantly on Bell's FTTP facilities as an illustrative example. All of the Incumbents, including the cable carriers are deploying FTTP facilities.
74 BCE Inc., *2010 Annual Report*, at pg 15.
75 TRP 2015-326 at Footnote 1.
76 TNC 2013-551 at para 19.

and the other Incumbents.[77] However, the Commission decided to only allow competitor access to FTTP facilities through disaggregated wholesale HSA services.[78]

- Following the issuance of TRP 2015-326, the Commission commenced a follow-up proceeding to determine the appropriate configuration of the new proposed disaggregated wholesale HSA service.[79] The Commission noted that it intended to first implement the new disaggregated wholesale HSA service for access to Incumbent FTTP facilities in Ontario and Quebec and that it would expand the applicability of disaggregated wholesale HSA to the rest of the country at a later date.[80]
    - However, while this this follow-up proceeding was getting under way, Bell Canada filed a petition in October 2015 to the Governor-in-Council requesting that the Commission's decision to mandate any access to Incumbent FTTP facilities be overturned due to alleged negative impacts on investment.[81] While the Governor-in-Council ultimately rejected the petition in May 2016 and the argument that mandated access to FTTP facilities would negatively impact investment[82], this petition caused seven additional months of regulatory uncertainty.

- It was not until TD 2016-379 was issued in September 2016 that the Commission approved, with modifications, the configurations of the new disaggregated wholesale HSA services to be offered by the Incumbents in Ontario and Quebec.
    - However, TD 2016-379 still did not offer competitors immediate access to the FTTP facilities of the Incumbents, despite six years having elapsed from when Bell first started offering services over FTTP to its own end-users. Several technical and operational issues remained to be resolved and so in TD 2016-379 the

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77 TRP 2015-326 at para 143.
78 *Id*. at para 153.
79 *Id*. at para 158
80 *Id*. at para 152.
81 Bell Canada, "Petition to the Governor in Council to Vary Telecom Regulatory Policy CRTC 2015-326, *Review of wholesale wireline services and associated policies*" 20 October 2015, at pg 16., available at https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/trp-crtc-2015-326-bell-canada-petition-en.pdf/$file/trp-crtc-2015-326-bell-canada-petition-en.pdf.
82 Government of Canada, "Statement by the Government of Canada on Bell Canada petition of CRTC wholesale decision", 11 May 2016 available at https://www.canada.ca/en/innovation-science-economic-development/news/2016/05/statement-by-the-government-of-canada-on-bell-canada-petition-of-crtc-wholesale-decision.html.

Commission referred these issues to the CRTC Interconnection Steering Committee ("CISC") for resolution.[83]

- In TO 2017-312,[84] released in August 2017, the Commission approved, an on an interim basis, tariffed rates for access to disaggregated wholesale HSA services in Ontario and Quebec, which were lower than those proposed by the Incumbents.[85] The other non-rate tariffed terms and conditions were those proposed by Bell, Cogeoc, Rogers and Videotron.[86]

- Despite the interim rate approval in TO 2017-312, and the subsequent clarification a few weeks later by the Commission that it was providing interim approval of proposed Incumbent terms and conditions for access to FTTP as well as rates[87], as of January 2019, the Commission still has not approved the final CISC report on the remaining technical and operational issues related to the introduction of disaggregated wholesale HSA service in Ontario and Quebec. Thus, practically speaking, competitors still do not have meaningful access to Incumbent FTTP facilities. In addition, the terms and conditions proposed by the Incumbents that the Commission approved on an interim basis have proven completely unworkable for competitors.

    - Due to the completely unworkable terms and conditions for access to FTTP described above, CNOC was compelled to file a Part 1 Application with the Commission in November 2018 requesting that the framework be entirely reworked. CNOC has attached this Part 1 Application as Appendix 6 to this present submission in which the detailed reasons for why the framework is completely unworkable are fully explained.

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83 TD 2016-379 at para 150.

84 *Interim rates for disaggregated wholesale high-speed access services in Ontario and Quebec*, Telecom Order CRTC 2017-312, 29 August 2017 ["TO 2017-379"]

85 TO 2017-312 at para 49.

86 *Interim rates for disaggregated wholesale high-speed access services in Ontario and Quebec*, Telecom Order CRTC 2017-312-1, 12 September 2017 ["TO 2017-379-1"].

87 Telecom Order CRTC 2017-312-1, *Interim rates for disaggregated wholesale high-speed access services in Ontario and Quebec*, 12 September 2017 at para 2.

- Finally, the Commission only recently commenced a proceeding to consider implementing disaggregated wholesale HSA in regions of Canada outside of Ontario and Quebec.[88]

65. In sum, as of January 2019, competitors still do not have any meaningful access to Incumbent FTTP facilities more than eight years after Bell commenced offering services to its own end-users over FTTP.

2.4.1 The importance of FTTP access to competitors

66. CNOC cannot overstate the importance of FTTP to the telecommunications industry. It is, effectively, the end-state of wireline broadband. Since FTTP technology relies upon beams of light to transmit information, the only limitations on the bandwidth that FTTP can achieve is the telecommunications equipment at either end of the fibre. FTTP will also play a vital role in the deployment of 5G by allowing for robust Wi-Fi networks, a vital component of the 5G ecosystem, to be deployed to offload mobile wireless traffic.

67. FTTN effectively has a speed limit of 50 Mbps download, and while coaxial cable can provide greater download speeds, Canadian end-users are increasingly moving towards speeds that only FTTP can deliver, such as simultaneous upload and download speeds of 1 Gbps. FTTP is the only technology that can offer near simultaneous upload and download speeds, which is increasingly important for various uses of the Internet by Canadians, such as uploading video content and gaming.

68. Consider the following table from the Commission's 2017 Communications Monitoring Report ("2017 CMR"), which cites residential Internet service subscriber distribution by advertised download speed:[89]

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[88] Initiated by *Follow-up process to consider implementation issues of disaggregated wholesale HSA services, including over FTTP access facilities, in other regions*, Commission Staff letter dated 9 March 2017, in Follow-up to Telecom Regulatory Policy CRTC 2015-326 (CRTC File No. 8638-C12-201509663) available at https://crtc.gc.ca/eng/archive/2017/lt170309a.htm.

[89] Table 5.3.12 of the 2017 CMR.

Advertised download speed	2012	2013	2014	2015	2016
Wideband 300 to 1400 Kbps	2.9	2.7	1.9	1.0	0.7
1.5 to 4 Mbps	18.2	7.3	3.7	2.9	2.1
5 to 9 Mbps	41.3	32.8	26.9	23.4	19.9
10 to 15 Mbps	10.1	25.6	25.6	24.1	22.4
16 to 24 Mbps	-	-	4.5	1.3	0.8
25 to 29 Mbps	-	-	17.4	15.8	14.5
30 to 49 Mbps	-	-	9.9	12.3	13.2
16 to 49 Mbps total	23.5	26.3	31.9	29.4	28.6
50 to 99 Mbps	-	-	-	7.2	10.4
100 Mbps and higher	-	-	-	8.0	15.8
50 Mbps and higher total	3.6	5	9.8	19.2	26.2
Total subscriptions in sample	9,761.1	9,970.1	10,345.1	10,558.7	10,827.5

Source: CRTC data collection

69. The following trends are significant:

a. The subscriber distribution for 100 Mbps and higher nearly doubled from 2015 to 2016, from 8% to 15.8%;

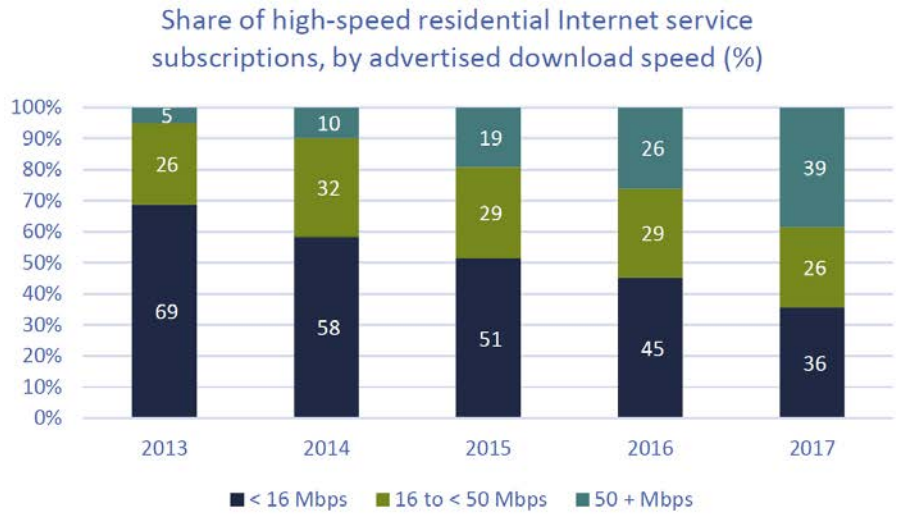
b. The subscriber distribution for 50 Mbps and higher increased from 5% to 9.8% from 2013 to 2014; then again from 9.8% to 19.2% from 2014 to 2015; and again from 19.2% to 26.2% from 2015 to 2016; and

c. While the subscriber distribution shifted to higher speeds, all lower speed service tiers between 0 and 49 Mbps, with one exception[90], decreased in percentage of subscriber distribution.

70. Regrettably, for reasons unknown to CNOC, the Commission's 2018 CMR no longer reports on the number of Canadians subscribing to services above download speeds of 100 Mbps. However, as set out in the following table from the 2018 CMR, the proportion of Canadians subscribing to residential services with download speeds above 50 Mbps grew from 26.2% to 39% in 2017, and, presumably, the proportion of Canadians subscribing to speeds above 100 Mbps continued to increase significantly:[91]

[90] The distribution of subscribers at 30 to 49 Mbps went up slightly from 12.3% to 13.2%.
[91] 2018 CMR, at Figure 5.4.

Figure 5.4 Share of high-speed residential Internet service subscriptions, by advertised download speed (%)



71. The data is indisputable. Canadians are increasingly subscribing to higher and higher broadband service speeds. In this era, the importance of access to competitively relevant wholesale HSA service speeds is paramount.

72. In pace with increasing consumer demand for higher service speeds, FTTP coverage is extensive and growing at an accelerated rate.

73. For example, Bell Canada Enterprises' ("BCE") 2018 Third Quarter Shareholder Report boasts that Bell's fibre network is the most extensive in Canada, "…covering a total of more than 9.5 millions homes and businesses in 7 provinces, including approximately 4.4 million locations served by direct FTTP connections at the end of Q3 2018, up from approximately 3.7 million at the end of 2017."[92] (Emphasis added). By contrast, in 2014, BCE reported 2.1 million homes passed by FTTP.[93]

74. Further, the rate of FTTP deployment between 2017 and 2018 represents the most pronounced single year increase in the last four years.[94]

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92 BCE 2018 Third Quarter Shareholder Report, at p.16.
93 BCE 2014 Annual Report, at p.59.
94 2.9 million homes passed in 2016 based on BCE 2016 Annual Report, at p.9 vs. 3.7 million homes passed in 2017 based on BCE 2017 Annual Report, at p.7.

75. Recently, BCE announced that Bell gained 77,000 Internet subscribers and earned more than 50 per cent of the revenue growth in that segment.[95] Chief executive George Cope commented "That's by far our largest quarter".[96]

76. The 2018 CMR also provides revealing data. As of the end of 2017, FTTP has been build out to 35% of all Canadian households.[97] Moreover, fully 11% of all Canadian Internet subscribers were currently subscribing to FTTP services as of the end of 2017.[98] These percentages have only increased in the year since the data that makes up the 2018 CMR was compiled.

77. What is alarming about all of this, as described above, is that competitors cannot access the FTTP facilities of the Incumbents, which means that when an end-user has access to FTTP, and wants speeds that only FTTP can deliver, it must obtain service from an Incumbent, even if they would prefer to obtain access from a service-based competitor.

78. CNOC's members have reported with alarming regularity that the Incumbents, when installing FTTP, are removing their previous last-mile copper facilities which service-based competitors were entitled to access, as per the description of the regulatory history of FTTN provided above. When these last-mile copper facilities are removed and replaced with FTTP facilities, competitors have no ability to compete for these customers. With 35% of the country already served by FTTP facilities, a huge portion of the market can no longer be reached by service-based competitors. Canada is rapidly sliding backward towards the days when Canadians could only obtain telecommunications services from a duopoly of their local cable company and telephone company. There are also many areas where cable is not available. In those cases, end-users are held hostage by the incumbent telephone company as monopoly provider.

79. CNOC cannot overemphasize the seriousness of this situation. Some of its members have reported subscriber losses above 50% in the last few years. Absent urgent regulatory action, many

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95 "Bell posts strong subscriber gains, but pricing pressure threat looms over wireless industry" dated November 1 2018, <https://business.financialpost.com/telecom/bell-posts-strong-subscriber-gains-but-threat-of-pricing-pressure-looms-over-wireless-industry>.

96 *Ibid.*

97 2018 CMR at Infographic 5.1.

98 *Ibid.*

service-based competitors will not survive more than 1-3 years from today's date, simply because of the regulatory lag in providing them with access to an essential facility.

80. CNOC is fighting on all fronts to address the ongoing lack of access to FTTP, including before the Commission, the Competition Bureau, and now before the Panel. CNOC's legislative proposals, discussed later in this submission, are designed to prevent the multi-year processes that service-based competitors must go through to obtain access to Incumbent facilities that are essential to their ability to survive, let alone compete, as well as other ongoing anti-competitive practices of the Incumbents. In addition, and as a final back-stop to the intransigence of the Incumbents, the Commission would have the power to order functional or structural separation as a final remedy if other measures failed to lead to effective competition.

3.0 THE STATE OF COMPETITION IN CANADA'S FIXED BROADBAND MARKETS

81. CNOC recently made a comprehensive submission to the Competition Bureau as part of a market study that the Bureau is conducting in which it is examiningthe state of competition in Canada's market for broadband services. CNOC has attached its submission to the Competition Bureau's market study as Appendix 5 to this submission.

82. In this Part 3.0 of its submission to the Panel, CNOC has updated some of the data that it discussed with regard to the state of fixed broadband markets in its submission to the Competition Bureau to reflect the release of the 2018 CMR and the 2018 Wall Report, as well as the preparation of the Roetter Report. In addition, CNOC has largely removed the detailed technical discussion of the problems with Commission's completely unworkable disaggregated HSA framework for service-based competitor access to FTTP facilities that is present in its submission to the Competition Bureau. As noted above, CNOC is currently seeking to amend this unworkable framework through a separate application to the Commission, which is attached as Appendix 6 to this submission.

83. Almost all Canadian retail broadband markets are jointly dominated by Incumbents. ILECs and Cable Carriers constitute a duopoly of wireline broadband service platforms. The collective

market power possessed and exercised by this duopoly, and in cases where a Cable Carrier is not present, an ILEC monopoly, translates into anti-competitive conduct that results in market failures that permeate Canadian broadband service markets. While the degree of market failure may vary from one geographic area to another, the presence and exercise of market power by Incumbents in an anti-competitive manner throughout all markets is an observable constant.

84. The Competition Bureau's guidelines concerning the abuse of dominance provisions of the *Competition Act* (the "Abuse of Dominance Guidelines") provide a helpful framework for assessing the state of retail competition in Canada's broadband markets.[99] Invoking these guidelines but stopping short of applying each individual statutory requirement of Sections 78 and 79 of the *Competition Act* produces an informed analysis.

85. Section 2.4 of the Abuse of Dominance Guidelines explains that when the Bureau assesses joint dominance, it will consider the ability of a firm or firms to exercise market power within that market, taking into account market shares, barriers to entry and expansion and any other relevant factors. The subsections that follow examine each of these factors, in turn, as they pertain to Canada's retail broadband service markets. As demonstrated herein, the characteristics of Canada's interrelated retail and wholesale markets for broadband services are consistent with indicators of joint dominance. The joint dominance of Incumbents facilitates their ability to engage in anti-competitive conduct practices that substantially lessen or prevents competition in both wholesale and downstream retail markets for broadband services.

[99] Competition Bureau, "The Abuse of Dominance Provisions", 20 September 2012, http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03497.html#s2_4.

3.1 Market Shares and Market Concentration

86. The latest market data available from the 2018 CMR reveals that non-Incumbent providers account for 13% of residential Internet access service revenues.[100] By contrast, the ILEC market share is 39% and Cable Carriers possess the remaining 49%.[101]

87. Incumbents would be quick to point out that the market share of non-Incumbent providers has steadily increased over the years. The residential retail Internet access market shares of independent Internet service providers has slowly increased from 7% in 2010 to 13% in 2017.[102] These modest improvements are encouraging indicators that wholesale regulation, and in particular, the regulatory policy requiring speed matching[103] between an Incumbent's retail and wholesale service offerings, has made a difference in downstream markets.

88. However, this statistic from the 2018 CMR is very misleading and the information that CNOC has obtained from its own members is extremely discouraging and paints a picture of service-based competitors being in an unprecedented crisis. Some CNOC members have reported that due to their continuing inability to access Incumbent FTTP networks, they have lost approximately half of their subscriber base in the last few years. As FTTP networks continue to proliferate across Canada, and service-based competitors remain unable to access them, the competitive side of the industry will swiftly be all but eliminated.

89. CNOC notes that the Commission's definition of "Independent ISP" in the 2018 CMR is as follows: "Non-Incumbent, non-cable-based carriers providing Internet services", and explicitly includes the facilities-based telecommunications service provider Xplornet as an example of an Independent ISP.[104] CNOC suspects that much, if not all of the ongoing increase in the market share of Independent ISPs noted in the last few years is a result of the activities of Xplornet.

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100 2018 CMR.
101 *Ibid.*
102 Based on the "Internet access revenue share, by type of entity" data from the 2011 to 2017 Communications Monitoring Reports.
103 TRP 2010-632 at para 78.
104 2018 CMR at Table 4.9.

90. Xplornet's business model is to provide service in rural and remote areas through, generally speaking, fixed wireless and satellite facilities[105]. Often, these areas have only had extremely slow dial-up or otherwise slow service provided by the local ILEC, which has no interest in upgrading its legacy facilities, which were designed to provide voice access, in low density areas. When Xplornet enters these areas with fixed wireless and satellite facilities capable of providing true broadband access, it becomes the sole provider of broadband services.

91. In addition, CNOC is aware that the 2018 CMR shows that "independent ISPs" collectively have the largest share of the business market for fixed Internet, with 42% of revenues. However, this statistic is misleading as to the strength of service-based competitors in the business market. The 2018 CMR itself clarifies that:

> Independent ISPs, which are not affiliated with Canadian incumbent TSPs or cable-based carriers, had 24% of the access service revenues while having 13% of the subscribers in 2017. This may be due to a large proportion of independent ISP revenues coming <u>from business information technology services providers that supply high-capacity connections to large enterprises</u>.[106] [Emphasis added]

92. These large business information technology firms are not reflective of the competitive industry and service-based providers face the same issues described throughout this submission in the business market as they do in the residential market. In fact, many CNOC members report that their presence in business markets, which can have larger bandwidth requirements than residential markets is being crippled by the ongoing lack of access to Incumbent FTTP facilities.

93. Thus, CNOC urges the Panel not to be misled by the fact that the 2018 CMR still shows continued, albeit extremely modest, growth for "Independent ISPs" or that the 2018 CMR shows "Independent ISPs" as collecting the majority of revenues in the business market. The feedback from CNOC's own membership, which CNOC believes is reflective of the experiences of service-based competitors more broadly, is that subscriber growth has not only plateaued due to the ongoing lack of access to FTTP, as well as additional anti-competitive by Incumbents described further below, but has begun to dwindle rapidly.

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105 Xplornet, "About Xplornet", https://www.xplornet.com/about/.
106 2018 CMR at Business Market, Revenues.

94. Moreover, as summarized in Section 2.3 above, the regulatory history surrounding FTTN and speed-matching over this technology is troubled and discouraging. Incessant regulatory delays obstructed access to FTTN facilities on terms and conditions that would allow competitors to economically match the service offerings of Bell Canada and other Incumbents offering FTTN services in retail markets. Incumbents enjoyed head-starts on the FTTN platform for a period of no less than twelve years. This period of competitive disadvantage contributed to the slow pace of market share gains throughout the period of 2010-2017.

95. A similar cause-and-effect relationship between Incumbent head-starts on FTTP technology and slow market share gains for competitors will manifest unless service-based competitors obtain access to FTTP on workable terms and conditions. Unfortunately, as described above, patterns of inefficient regulation due largely to obstructionist conduct by the Incumbents are repeating themselves.

96. Overall, the modest inroads achieved by service-based competitors have been constrained by factors that are both symptomatic of the joint dominance of Incumbents and contributory to the continued possession and exercise of market power by those dominant players.

97. Even without further qualification of the market shares reported in the 2018 CMR, the most recent data surrounding Internet access revenue shares is alarming. Altogether, the 13.0% market share of non-Incumbent providers in the residential market is juxtaposed against an 86% market share of the Incumbents.[107] These market shares are indicative of a highly concentrated market that is jointly dominated by ILECs and Cable Carriers.

98. Of course, market concentration alone is not sufficient to conclude that a market is jointly dominated. As aforementioned, the Abuse of Dominance Guidelines provide that barriers to entry and expansion are also a relevant consideration.[108]

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[107] 2018 CMR at Infographic 5.3, the 2018 CMR notes that due to rounding, percentages may exceed 100%.
[108] Abuse of Dominance Guidelines, at Section 2.4.

3.2 Barriers to entry in Canada's broadband market

99. Purely facilities-based entry into retail markets for wireline broadband services requires massive capital investments. But upfront cost is not the only barrier to facilities-based entry. The Commission found that prospective entrants cannot feasibly or practically duplicate last-mile HSA facilities on a sufficient scale to compete effectively with Incumbents due to barriers including securing sufficient capital, securing rights-of-way, and construction challenges that require significant lead time to complete.[109]

100. Not surprisingly, aside from a few small-scale end-to-end facilities projects (mostly small FTTP builds), and over twenty years since the introduction of competition into Canada's telecommunications markets, there are no instances of successful widescale facilities-based entry into Canada's wireline broadband markets by non-Incumbents.

101. If entry in the form of an end-to-end network build is not feasible or economically efficient, the next question is naturally whether there exists an upstream wholesale market that can provide access to bottleneck facilities on reasonable terms and conditions such that competitive downstream entry can be facilitated. On this front, the Commission's analysis of upstream market conditions provides helpful guidance.

102. Notably, the Commission determined that the Incumbents collectively have market power in the provision of wholesale HSA services in their serving areas.[110] Furthermore, the Commission found that there would be a substantial lessening or prevention of competition in the downstream retail Internet services market by denying mandated access to wholesale HSA services.[111] In other words, the Incumbents are jointly dominant over the wholesale market for HSA services. Using the language of the Abuse of Dominance Guidelines, the Incumbents "jointly control a class or species of business such that they hold market power together"[112].

103. Mandated access to wholesale HSA services has facilitated a level of entry into downstream retail markets for broadband services. The above-cited Independent ISP market share

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109 TRP 2015-326, at paras 133-134.
110 *Id.*, at para 124.
111 *Id.*, at para 130.
112 Abuse of Dominance Guidelines, at Section 2.4.

data, as well as the very existence of CNOC and its members, confirms this result. However, this is not the complete story.

104. Importantly, mandated access to wholesale HSA does not negatively impact incentives to invest in infrastructure. Following the issuance of TRP 2015-326, which required the Incumbents to provide access to their FTTP facilities to competitors (something that has still not been achieved in practice), Bell Canada petitioned the Governor in Council to overturn the decision on the grounds that mandated access to FTTP would negatively impact incentives to invest in telecommunications infrastructure. CNOC retained Analysis Group to provide expert evidence demonstrating that mandated wholesale access does not negatively impact incentives to invest. CNOC has attached Analysis Group's expert report, which shows that there are no negative impacts on incentives to invest from mandated wholesale access, as Appendix 3. Ultimately, the Governor in Council agreed and rejected Bell Canada's petition.[113]

105. Notwithstanding mandated access policies, competitors face a difficult business case for entry and also significant barriers to expansion when competing based on wholesale HSA services. That is because, as explained further below, although mandated access helps to discipline the market power of Incumbents it is not up to the task of completely preventing anti-competitive conduct, whether overt or not, by these jointly dominant entities. In response, the new legislative language proposed in this submission is intended to ensure that facilities-based Incumbents and service-based providers can compete on a more equal footing.

106. In addition, with regard to the disaggregated wholesale HSA model, as explained in CNOC's submission to the Competition Bureau's Market Study, as well as its Part 1 Application, the current costs of entry for service-based competitors into the market for broadband services delivered over FTTP are so prohibitive, well over a few hundred million dollars, that they would strain the resources even of some of the Incumbents, let alone of service-based competitors, which are a fraction of the size of the smallest Incumbents.[114]

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[113] Innovation, Science, and Economic Development Canada, "Statement by the Government of Canada on Bell Canada petition of CRTC wholesale decision", 11 May 2016, https://www.canada.ca/en/innovation-science-economic-development/news/2016/05/statement-by-the-government-of-canada-on-bell-canada-petition-of-crtc-wholesale-decision.html.

[114] Appendix 5 at paras 204-222.

107. In contrast, under the aggregated wholesale HSA model, entry is possible with initial investments of a few hundred thousand dollars.[115]

3.3 Barriers to expansion in Canada's broadband market

108. Competitive Internet service providers that rely on wholesale HSA services[116] are subject to several barriers to expansion. These barriers consist of significant competitive disadvantages vis-à-vis the Incumbents. Some of these competitive disadvantages stem from gaps in the regulatory framework and anti-competitive conduct of the Incumbents that exploits such gaps. These chronic problems can be addressed and indeed must be addressed to ensure that service-based competitors can compete at maximum efficiency. Other competitive disadvantages consist of the inability of service-based competitors to match longstanding incumbency advantages enjoyed by the Incumbents. Addressing such barriers is a long-term objective that begins with ensuring that service-based competitors are allowed to compete at maximum efficiency and on a much more equal footing with the Incumbents.

109. With respect to the barriers to expansion stemming from gaps in the regulatory framework, Section 4.0 of this submission is dedicated to a discussion of these systemic issues and the relief that is necessary to remedy the problems at their root. By way of a concise summary, these barriers to expansion are comprised of or result from: (1) limited and inaccurate competitor access to Incumbent retail service qualification and service provisioning information; (2) lack of data walls between an Incumbent's wholesale and retail arms allows the Incumbent to leverage information about its wholesale customers to generate competitive advantages; (3) lack of a competitor quality of service framework that sets standards related to order processing installations, repairs, etc. that are equivalent to those applied by the Incumbent to their own retail operations and imposes financial consequences on Incumbents for non-compliance; (4) Incumbent head-starts when offering new retail speeds or technologies; (5) complex and lengthy costing processes that (i) delay the final approval of just and reasonable rates and (ii) favour proceeding participants with extensive regulatory resources and costing expertise; (6) anti-competitive Incumbent retail bundling pricing; (7) lack of efficient and fair access to Incumbent support structures; and, (8) in the mobile wireless

[115] *Id.* at paras 223-231.
[116] Which currently happen to be predominantly delivered throughout the industry via the aggregated HSA model.

markets, the ongoing lack of mandated wholesale access for Mobile Virtual Network Operators ("MVNOs") in Canada.

110. All of the above-listed competitive disadvantages deny competitors the opportunity to engage the retail market on an equal playing field with Incumbents. Collectively, these limitations significantly constrain the potential growth of all competitors. Each such limitation therefore consists of a barrier to expansion that furthers the case that the Incumbents enjoy joint dominance of Canada's broadband service markets.

111. Just as Incumbent use of product bundles and long-term contracts represents a barrier to entry, these factors also represent a barrier to expansion for competitive ISPs seeking to attract additional customers.

112. The Incumbents also benefit from incumbency advantages that tilt the market heavily in their favour. In fact, the Commission explicitly recognized these incumbency advantages in TRP 2015-326 when weighing the respective capacity of competitors and Incumbents to deploy access facilities.[117] Specifically, the Commission determined:

> "…the incumbent carriers' ability to deploy such facilities is largely based on their decades of incumbency in the provision of wireline services, with all the associated advantages, including established brands and customer bases, existing network infrastructure including support structures, national fibre backbone networks, pre-existing municipal access agreements, various economies of scale, and greater access to capital markets."[118]

113. These decades' worth of advantages permeate the Incumbents' entire operations. Established customer bases, brand recognition and enormous marketing budgets are perhaps the most difficult advantages to compete with from the perspective of an independent Internet service provider. By contrast, small entrants will have a limited timeline to build reputation and customer goodwill. Moreover, new entrants must necessarily prioritize investment in operations, which leaves scarce budgeting for marketing.

114. CNOC submits that incumbency advantages, which are also indicators of the Joint dominance of Incumbents and Cable Carriers, help to explain why, as the Competition Bureau's market study notice puts it, 87% of retail Internet subscriptions in Canada were purchased from a

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117 TRP 2015-326, at para 134.
118 *Ibid.*

traditional telephone or cable company while service-based competitors are offering seemingly comparable services at prices that can be as much as 30% lower than those advertised by telephone and cable companies.[119]

115. While CNOC is not suggesting that Incumbents should be artificially stifled in their growth by regulation, simply because they have accrued certain incumbency advantages, it is critical for regulators not to allow such advantages to be leveraged through the exercise of insufficiently constrained market power. Moreover, as explained further below, regulators are required to constrain abuses of incumbent dominance by the newly negotiated USMCA.

116. CNOC is not suggesting, for example, that Incumbent spending on marketing budgets should be constrained, but CNOC is saying that other barriers to entry favouring Incumbents that prevent competitors from being able to grow their businesses and generate the kinds of revenues needed to create their own significant marketing budgets need to be eliminated through regulation that better disciplines the market power currently exercised by the Incumbents.

4.0 SYSTEMIC BARRIERS TO EFFECTIVE COMPETITION IN CANADA'S BROADBAND MARKET

117. This Part 4.0 is devoted to a more detailed analysis of some of the systemic barriers to effective competition in Canada's broadband market discussed immediately above. Part 10.0 of this submission discusses how our legislative reform proposals address these matters.

4.1 The current regulatory framework for wholesale HSA services

118. First and foremost, the problems with the current regulatory framework for wholesale HSA services, which CNOC described above in Section 2.2, are the biggest threat to service-based competition in Canada' broadband service markets. As described in Section 2.4.1, the continued inability of competitors to access Incumbent FTTP facilities is threatening the very existence of service-based competitors.

[119] Competition Bureau, "Market Study Notice: Competition in Broadband Services", 10 May 2018, at para 6.

119. CNOC devoted the entirety of Part 5 of its submission to the Competition Bureau's market study to the problems with the current framework for wholesale HSA services and how they can be rectified.[120] More significantly, due to the urgency of the situation, CNOC was compelled to bring a Part 1 Application to the Commission requesting that it address the significant economic and technical problems with its framework for wholesale HSA services, and access to wholesale HSA over Incumbent FTTP facilities in particular.[121]

120. While CNOC does not expect legislation to be a substitute for the more detailed regulation of mandated wholesale services, a requirement for Incumbents to file tariffs and provide all other necessary technical and commercial information required for a mandated wholesale service at the time that they launch a retail service that incorporates the same essential facility will allow shortcomings in the wholesale service to be addressed much earlier. Had such a requirement been in place when Bell launched FTTP in 2010, any deficiencies with the FTTP regulatory wholesale regime would have been addressed much earlier and the situation would not have had to escalate to the point of becoming an existential crisis for the competitive industry. This and other proposed legislative remedies could avoid a recurrence of this situation.

121. The legislative measures that would improve wholesale regulation significantly are set out in sections 10.2, 10.3, 10.7, 10.8, 10.10, 10.11.

4.2 Incumbent head starts are crippling competitors

122. A related barrier to the problems with the current framework for wholesale HSA services is that, as the case with FTTP demonstrates, Incumbents can still benefit from head-starts measured in years when it comes to offering new broadband technologies and the corresponding speeds available through those technologies. By extension, a head-start allows the Incumbent to capture, uncontested by service-based competitors, a significant proportion of the consumer base that expresses demand for the new service speed.

[120] Appendix 5 at part 5.
[121] Appendix 6.

123. CNOC emphasizes that it is not suggesting that Incumbents should need to wait to deploy innovative new retail services until such time as service-based competitors have access to an equivalent wholesale service. However, wholesale tariffs, with reasonable terms and conditions, and all other relevant technical and commercial information required to make the corresponding wholesale services usable must be filed by the Incumbents contemporaneously with their introduction of new retail services so that the Commission can commence the process to approve the tariffs and provide service-based competitors with access. This will reduce Incumbent head-starts several years to weeks or months.

124. Incumbent head-starts on new technology platforms can have a devastating effect on competition. Sections 2.3 and 2.4 of this submission thoroughly describe the regulatory history surrounding FTTN and FTTP technologies, respectively, and the prolonged periods while competitors were deprived of access to these facilities on terms and conditions that would allow them to compete on a more equal footing.

125. It is also extremely alarming that the Commission has only recently commenced the process to require the introduction of disaggregated wholesale HSA services outside of Ontario and Quebec.[122] Even if one assumes that, with the benefit of the experience gained in the, still ongoing, process to implement disaggregated HSA in Ontario and Quebec, the Commission is able to move in a more expedited fashion in other regions of Canada, it is unlikely that the Commission could complete such work in less than two years. Thus, without an urgent change in how the Commission is approaching this issue, competitors in parts of Canada outside of Ontario and Quebec may not have access to the FTTP facilities of the Incumbents before 2021, thus providing Incumbents with more than a decade long head-start.[123] With head-starts like those experienced by the incumbents in the cases of FTTN and FTTP it is little wonder that, despite offering service at prices that are up to 30% less than equivalent Incumbent offerings,[124] the competitors have been unable to gain greater market share.

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[122] Telecom Commission Letter Addressed to Distribution List, *Follow-up process to consider implementation of disaggregated wholesale HSA services, including over FTTP access facilities, in other regions,* 9 March 2017 (CRTC File: 8638-C12-201509663).

[123] See Section 3.11 for a more detailed timeline.

[124] As noted in the Competition Bureau's Market Study Notice, at para 6.

126. Head-starts also occur when Incumbents propose wholesale rates for new service speeds that are highly inflated. Even rates approved by the Commission on an interim basis can have the effect of categorically foreclosing service-based competitors from competing in a particular segment of the market. For example, leaving aside all the fundamental problems with disaggregated wholesale HSA service discussed above, Bell's monthly (interim approved) access rate for disaggregated FTTP service up to 940 Mbps download / 940 Mbps upload is $121.79[125]. In other words, leaving aside all other massive costs associated with disaggregated HSA service (and even the $247.90 charge payable to Bell for installing the service at the end-user's premises), a service-based competitor would have to pay Bell $121.79 per month in order to serve an end-user with FTTP service. Meanwhile, Bell offers FTTP service at retail at speeds of up to 1 Gbps download / 750 Mbps upload at a discounted promotional rate of $74.95 a month (regular price of $99.95 per month). This margin squeeze that currently exists, and will hopefully be remedied when the Commission ultimately approves final rates that are just and reasonable (which could still be many months away), also creates what is in effect a competitive head-start in the Incumbent's favor. CNOC has more to say about Incumbents gaming the rate-setting process further below.

127. Sometimes an Incumbent might offer a new service speed at wholesale, but wholesale customers will be outright barred from using the service speed due to technical requirements and processes prescribed by tariff. For example, Shaw recently filed a tariff application to introduce a new wholesale Internet 300 service.[126] However, Shaw insists that this wholesale service must be provisioned using a DOCSIS 3.1 modem.[127] Cable Carrier tariffs require that wholesale customers comply with a modem certification process. It can take up to 9 months or more to certify a new modem for wholesale HSA service. As a consequence, Shaw benefits from a minimum of a 9-month head-start in retail markets for 300 Mbps Internet service.

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[125] Bell Access Services Tariff, CRTC 7516, Item 151, Section 5(a).

[126] Shaw Tariff Notice ("TN") 26/B (CRTC File No. 8740-S9-201606790) available at https://crtc.gc.ca/public/8740/2016/s9/3172309.zip

[127] See Shaw letter dated 17 August 2018 in the tariff proceeding initiated by Shaw TN 26/B, CRTC File No. 8740-S9-201606790, available at https://crtc.gc.ca/public/8740/2016/b2/2016-396-448-Replies.zip.

128. Incumbent competitive head-starts are harmful to competition. Canadian consumers ought to benefit from the competition that service-based competitors can generate – as soon as new technologies service speeds reach the market.

129. Eliminating unreasonable incumbent head starts is so vital to the future of the competitive industry that CNOC firmly believes that measures to limit the duration of head starts need to be inserted into Canada's telecommunications legislation so that service-based competitors do not need to spend years in litigation at the Commission every time an Incumbent introduces a new service that leverages its control over essential facilities.

130. The legislative measures that would reduce incumbent head starts significantly are set out in section 10.3.

4.3 Lack of access to complete technical and commercial information relating to wholesale services

131. The Incumbents control key information such as service qualification databases that determine whether a specific customer address might qualify for broadband services. The information provided to service-based competitors is not always accurate. Similarly, only the Incumbents have knowledge regarding applicable intervals for retail service provisioning when it comes to installations, repairs and disconnections. They do not appear to offer the same intervals to their wholesale customers. Thus, wholesale customers must rely on whatever the Incumbent claims is the expected service interval for a given wholesale order.

132. In its submission to the Competition Bureau's market study, CNOC requested that the Bureau recommend that the Commission issue a direction to provide service-based competitors with access to Incumbent information including accurate and comprehensive service qualification databases and retail / wholesale service provisioning intervals. Importantly, knowledge of Incumbent retail service provisioning intervals will allow service-based providers to determine whether the Incumbent confers any discriminatory disadvantages regarding wholesale service provisioning intervals. In other words, this information would allow a service-based competitor to determine whether the Incumbent provides itself shorter intervals for installations, repairs and disconnections compared to what is experienced on the wholesale side.

133. The legislative measures that would ensure competitor access to technical and commercial information relating to wholesale services are set out in section 10.3.

4.4 Insufficient data barriers between wholesale and retail arms of Incumbents

134. As wholesale HSA service providers, the Incumbents have opportunities to collect sensitive information about wholesale customers and end-users of wholesale customers. This occurs throughout various stages of wholesale service provisioning: installations, repairs and disconnections. A few examples are warranted.

135. Incumbents know precisely when their wholesale customers gain a customer. They know precisely when wholesale customers lose a customer. Beginning with the first order for wholesale HSA service installation at an end-user premises, the Incumbent learns where the wholesale customer's end-user is located. Based on the wholesale HSA order details, the Incumbent can also determine the service-speed that is being provisioned to the end-user. In cases where trouble tickets have been submitted to the wholesale HSA service provider, the Incumbent also has visibility into service problems that a wholesale customer's end-user may be experiencing.

136. Moreover, a significant proportion of wholesale HSA service provisioning elements (e.g. installations, repair and disconnections) require that the Incumbent send a technician to the end-user's premises. These unmonitored appointments also afford another opportunity for the Incumbent to collect information from the end-user or to disseminate information (e.g. relating to the Incumbent's service offerings) directly to the end-user.

137. Based on the wealth of information that is collected on a constant basis throughout wholesale HSA service provisioning, it should be plainly obvious that Incumbents have incentives to utilize all such information to create a retail advantage for themselves. For example, Incumbents can, and do, appear to act on this information to upsell or winback an end-user of the wholesale customer.

138. CNOC notes that the negative impacts described above of insufficient walls between the wholesale and retail arms of the Incumbents are not merely hypothetical conjecture. In a recent submission to the Commission in a proceeding examining abusive and misleading sales practices of certain Canadian telecommunications service providers CNOC's member TekSavvy Solutions Inc. ("TekSavvy"), described specific instances of how the Incumbents have abused their knowledge of wholesale customer information.[128]

139. In particular, TekSavvy described in its submission instances of Incumbent technicians dispatched to the premises of TekSavvy's customers for repairs or installations inappropriately attempting to sell the Incumbent's own services, often while making misleading claims about TekSavvy's services.[129] Moreover, TekSavvy described instances where Incumbent sales staff, or third-party sales agents, have targeted TekSavvy's end-users using information that the Incumbent only knows from its wholesale function.[130]

140. Policing an Incumbent's exploitation of wholesale customer information on an *ex-post* basis[131] is virtually impossible. At best, a wholesale customer can hope to gather weak circumstantial evidence that an Incumbent has exploited their position as a wholesale service provider for retail commercial gain. Ultimately, only the Incumbent will have actual knowledge of information sharing between its wholesale and retail arms.

For these reasons, relief in the form of a data wall between an Incumbent's wholesale and retail operations is necessary.

141. The legislative measures that would establish data barriers between the wholesale and retail arms of the Incumbents are set out in section 10.9.

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128 Intervention of TekSavvy Solutions Inc. to Telecom Notice of Consultation 2018-246, *Notice of hearing - 22 October 2018 - Gatineau, Quebec - Report regarding the retail sales practices of Canada's large telecommunications carriers*, 16 July 2018 at paras 38-47.

129 *Id.* at paras 29-37.

130 *Id.* at paras 38-47.

131 Such as an application to the Commission alleging a breach of subsection 27(2) of the *Telecommunications Act*, which prohibits Canadian carriers from unjust discrimination or giving an undue or unreasonable preference toward any person, including itself, or subjecting any person to an undue or unreasonable disadvantage.

4.5 Pervasive wholesale quality of service issues

142. The Commission recently reviewed the regulatory Competitor Quality of Service ("Q of S") regime and issued its determinations in Telecom Regulatory Policy CRTC 2018-123[132] ("TRP 2018-123"). The Commission determined that a Q of S monitoring regime should apply to wholesale HSA services.[133] More specifically, the Commission determined that the monitoring regime would apply to wholesale HSA installations and wholesale HSA repairs.[134] The Q of S indicators for this regime are currently being developed by a CISC working group.[135] Notably, however, TRP 2018-123 does not prescribe a requirement for Q of S indicators to compare performance levels between an Incumbent's wholesale Q of S performance to the Q of S performance standards applicable to the Incumbent's own retail operations.

143. Quality of service performance issues have a profound impact on a competitive service provider's retail operations. Missed wholesale HSA service installation and repair appointments translate into significant delays for a competitive service provider's end-users. Moreover, end-users must make arrangements to stay home from work in order to accommodate an installation performed by an Incumbent's technician. Missed appointments therefore cause direct harm to a competitive service provider's end-customers, and, in turn, to the reputation of the competitor which the end-user holds accountable for such inconveniences.

144. Incumbents have a greater incentive to deliver lower Q of S performance levels to their competitors. Delivering lesser levels of Q of S performance on the wholesale front allows the Incumbent to conserve resources that can then be allocated to retail operations. What's more, any kind of systemic discrepancy between an Incumbent's wholesale and retail Q of S performance puts the wholesale customer at a competitive disadvantage. After all, all other things being equal, wouldn't a subscriber always select the service provider who can schedule and perform installations and repairs more quickly and with a lower likelihood of missed appointments?

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132 *Review of the competitor quality of service regime*, Telecom Regulatory Policy CRTC 2018-123, 13 April 2018 ["TRP 2018-123"].
133 *Id.* at para 121.
134 *Id.* at para 101.
135 CISC Business Process Working Group per Task Identification Form BPTF0102 available at https://crtc.gc.ca/public/cisc/bp/BPTF0102.docx.

In fact, other than the ongoing existential threat posted by the continuing lack of access to Incumbent FTTP facilities, when surveyed, CNOC members overwhelmingly reported Q of S issues such as, but not limited to, missed installations, extremely long time periods to start processing orders and installations, and a refusal to provide more specific installation windows (i.e., not just sometime between 9 AM to 8 PM, but an actual one or two-hour window) as the single most important issue that undermines their ability to compete effectively against the Incumbents. For example, it can take Incumbents days or weeks to install service at the premises of a service-based competitor's customer, whereas the Incumbents will often perform same-day installations for their own retail customers.

For competitive service-providers to compete on an equal footing with facilities-based Incumbents, measures must be adopted to ensure a high-level of wholesale Q of S performance.

145. The legislative measures that would address pervasive quality of service issues are set out in section 10.3.

4.6 Incumbent gaming of wholesale rates

146. The Commission applies what is known as Phase II Costing methodology to establish rates for mandated wholesale service such as wholesale HSA services. Even in the rare cases where Incumbents do not try and game the system and deviate from Phase II Costing principles in order to obtain inflated wholesale rates, Phase II Costing and associated tariff proceedings are extremely resource intensive for the industry and the Commission. The methodology is complex, lacks transparency, and is very time consuming for all interested parties.

However, in CNOC's experience, the Incumbents are notorious for attempting to deviate from established Phase II Costing principles and proposing inflated rates for their wholesale services. When this occurs, all parties, the Commission, the Incumbents, and service-based competitors must spend years in very costly regulatory hearings before proper rates are set. Most notoriously, and as described further above, this occurred in the case of FTTN when all of the Incumbents willfully ignored Commission directives and proposed wholesale rates what were absurdly

inflated. It took many years, until 2016, before it was conclusively determined that the Incumbents had in fact done this and the Commission acted to cut the rates to more reasonable levels.

147. These inflated rates had a devastating impact on the ability of service-based competitors to expand their market-share or invest in their businesses. All of this could have been avoided if the Incumbents had simply complied with the Commission's Phase II Costing methodology in the first instance.

148. The legislative measures that will address Incumbent gaming of the wholesale rate process are set out in section 10.3.

4.7 The lack of access to property needed for infrastructure deployment

149. A persistent issue faced by all telecommunications service providers, regardless of whether they are Incumbents or service-based competitors, is obtaining access to property, including support structures, on reasonable terms and conditions, that is needed for the deployment of telecommunications facilities. For example, telecommunications service providers face significant difficulties in obtaining access to the power poles of provincially-regulated electric power companies on reasonable terms and conditions, which are vital for deploying telecommunications wires. Similar problems exist with access to Incumbent ducts, rights of way, support structures, and inside wire, just to name a few of the different types of property that telecommunications service providers need to access in order to deploy facilities.

150. These problems with access will only be exacerbated as 5G is deployed, which will require telecommunications service providers to deploy an unprecedented amount of telecommunications facilities on passive infrastructure and public property.

151. The legislative measures that will address the lack of access to property needed for infrastructure deployment are set out in section 10.7. However, to the extent there is an uncertainty over the constitutional authority of the federal government over passive infrastructure regulated by provincial governments (such as hydro poles), CNOC is also proposing that a reference be directed to the Supreme Court of Canada on that specific issue.

4.8 The lack of mandated wholesale access for MVNOs

152. Finally, a significant barrier to effective competition is that service-based competitors do not have wholesale access to incumbent radio access networks ("RANs") such that these competitors can operate as MVNOs, a concept which is explained further below, but is essentially a service-based competitor for mobile wireless services.

153. Aside from the fact that this lack of access to the RAN of the incumbents prevents most service-based competitors from competing in mobile wireless markets, it also prevents them from gaining market share in broadband markets, as consumers seek to bundle their telecommunications services such that they are all obtained from one provider.

154. The fact that service-based competitors are also unable to provide mobile wireless services may also be negatively impacting their reputation in the marketplace as consumers may perceive service-based competitors as second-class providers if they are unable to obtain mobile wireless service from these types of competitors.

155. The exclusion of service-based competitors from Canada's mobile wireless markets also denies significant revenue streams to service-based competitors that could then be reinvested into their businesses and improving their competitive position.

156. The Roetter Report confirms that broadband and mobile wireless markets should be viewed as complementary markets.[136]

157. The legislative measures that will ensure that service-based competitors are provided with access on reasonable terms and conditions to the RAN of the Incumbents are set out in section 10.3.

[136] Appendix 1, Roetter Report, at pg 39.

5.0 THE STATE OF COMPETITION IN CANADA'S MOBILE WIRELESS MARKET

158. The state of competition in Canada's fixed broadband markets is extremely worrying, with many service-based competitors facing the prospect of being driven out of business in the coming years due to their continuing inability to access the FTTP facilities of the Incumbents on reasonable terms and conditions.

159. However, at least the Commission has recognized the need for service-based competitors when it comes to fixed broadband and, although CNOC believes its policies have been insufficiently pro-competition, the Commission has, over the course of the last two decades, enabled service-based competitors like CNOC's members to enter Canada's broadband markets and compete with the Incumbents, despite the serious handicaps described above.

160. Unfortunately, the state of competition in Canada's mobile wireless markets is even more bleak, as the Commission has chosen not to require the three national mobile network operators, namely Bell, Rogers and TELUS ("National MNOs"), to provide access to their essential facilities, including their RANs, on reasonable terms and conditions to service-based competitors such that they can operate MVNOs. This absence of mandated access for service-based competitors to the essential facilities of the National MNOs necessary to operate as MVNOs has resulted in Canada having almost no MVNOs that are independent of the Incumbents. In turn, this near total lack of MVNOs in Canada's mobile wireless market, and thus significantly reduced level of competition, has resulted in a market that is extraordinarily concentrated in the hands of the National MNOs.

161. The low level of competition in Canada's mobile wireless market brought about by the near total absence of MVNOs and the concentration of the market into the hands of just the National MNOs has resulted in Canadians paying some of the highest prices in the world for mobile wireless service and missing out on all of the benefits of competition described further below in Section 7.0.

5.1 What is a Mobile Virtual Network Operator ("MVNO")?

162. An MVNO is a company that provides mobile communication services, sells subscriptions, and bills customers under its own brand but does not have its own spectrum license. Mobile industry experts define MVNOs according to "how much of the communication network they control".[137] The application of this definition results in two basic MVNO types:

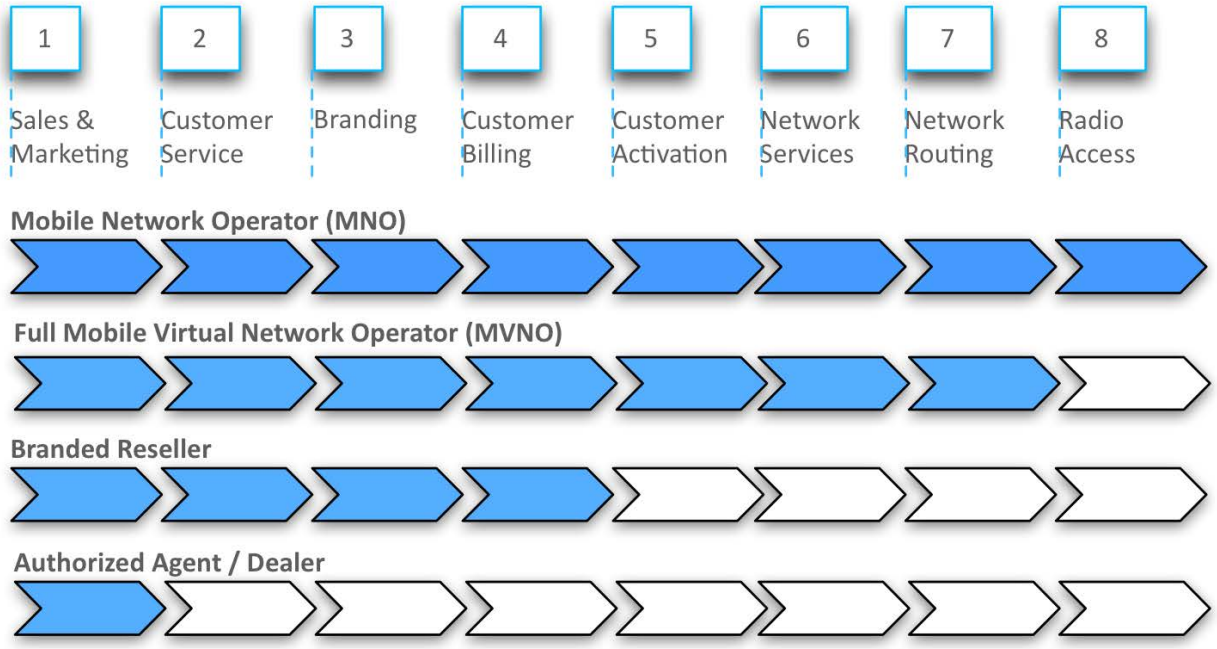
- **Branded Reseller MVNO:** This model requires a 'turn-key' traffic contract with a MNO. Under this model, service capabilities are governed by the MNO. The MVNO has no control over any network elements. The MVNO merely provides its brand and sometimes, its distribution channels. This is the only type of MVNO model currently in use in Canada. This is often referred to as 'white label' or 'reseller' as the MNO operates the vast majority of the service components

- **Full MVNO:** An MVNO of this type must invest in, build and operate its own backbone network in addition to securing interconnection agreements with other carriers to terminate traffic. A carrier of this type must also build a variety of facilities including its own Mobile Switching Center ("MSC") and Home Subscriber Server ("HSS") in order to interconnect with traditional MNOs.

163. The diagram below illustrates the different aspects of operating a mobile wireless network, and shows which aspects are under control of the operator described (indicated by the blue shading).

[137] Telektronikk, "Mobile Virtual Network Operators", http://www.telenor.com/wp-content/uploads/2012/05/T01_4.pdf

Figure 1: Areas of Responsibility for Various Mobile Wireless Operator Types



164. Currently in Canada only Branded Reseller MVNOs exist, under brands such as Cityfone and PC Mobile. According to a market impact study, "This is the model that requires the lowest investment for a new venture, therefore the fastest to implement. However, most of the business levers remain with the network provider. Therefore, the new venture has a very limited control of the business levers and value proposition of the service".[138]

165. In contrast, the Full MVNO model requires investment in return for the ability to control more aspects of service offerings. This model is facilitated by a regulatory framework that enables the following:

- The ability to launch services and handsets independently of MNOs: This allows MVNOs to introduce new services frequently and not be constrained by the MNOs' own pace and approach to service introduction.

[138] Valoris, "Mobile Virtual Network Operator (MVNO) basics: What is behind this mobile business trend", http://www.valoris.com/docs/MVNO_basics.pdf.

- The ability to select the best alternative access network: To reduce cost, MVNOs should be able to link to several MNOs so that they are not tied to exclusive arrangements.
- The ability to issue SIM cards: This capability avoids unnecessary disclosure of the MVNO subscribers' personal and commercial information to the MNOs. In addition to this privacy safeguard, this ability also protects MVNO market intelligence.
- The ability to obtain its own International Mobile Subscriber Identity ("IMSI") codes, interconnection rights, and establish its own international roaming agreements, if desired.
- The ability to build a network inlay: To attain a better cost structure where the company's customer density warrants it, a true MVNO can make arrangements so that customers are not roaming at all in a portion of the network. This can be achieved through the use of Wi-Fi, licensed spectrum, or other new technologies as they become available.

166. MVNOs are very popular in the United States, where brands such as Google's Project Fi and Republic Wireless offer prices to consumers significantly below those offered by the traditional MNOs.[139] They are able to accomplish this largely by relying upon increasingly ubiquitous Wi-Fi networks to carry their mobile wireless traffic.

167. Unfortunately, while the United States has several dozen MVNOs that provide compelling service offers to their end-users, Canada has almost no independent MVNOs and the market remains extremely concentrated in the hands of the three National MNOs.

5.2 Market shares and market concentration

168. The 2018 CMR indicates that in 2018, the National MNOs collectively held a massive 92% market share of mobile wireless revenues.[140] In fact, from 2013 to 2017 they only lost 1% of their market share of mobile wireless revenues, which is remarkable given the sustained efforts of the

[139] Appendix 4 at paras 49-5, 66.
[140] 2018 CMR at Retail Mobile Sector, Revenues.

Commission and the federal government to inject more facilities-based competition into Canada's mobile wireless market.[141] Clearly, despite over 10 years of effort, this strategy has been an abject failure.

169. CNOC further notes that according to the 2017 CMR, from 2014 to 2016 "resellers/rebillers", which include MVNOs, accounted for no more than 1% of both wireless subscribers and wireless revenues in Canada.[142] It seems that for the 2018 CMR the Commission decided that resellers/rebillers were having such a marginal impact on Canada's mobile wireless market that it stopped reporting on this segment of the market.

170. The state of mobile wireless competition in Canada does not get much better when subscriber growth rates are examined. In 2017 the subscriber growth of other mobile wireless service providers competing against the National MNOs was actually negative, with these providers' overall number of subscribers declining by 8.6%.[143] CNOC suspects that this was largely the result of Bell Canada purchasing MTS, one of the strongest regional competitors to the National MNOs, which was a serious blow to competition in Canada's mobile wireless market.[144]

171. Overall, the trend is clear: without a significant change in regulatory policy the mobile wireless market will continue to remain firmly controlled by the National MNOs, all members of Canada's traditional large vertically and horizontally integrated broadcasting and telecommunications groups. It is clear that attempts thus far to stimulate further facilities-based competition in Canada's mobile wireless market have failed. CNOC submits that only providing for mandated access to the RANs and other essential facilities of, at the very least, the National MNOs such that service-based competitors can launch MVNOs, will make a meaningful dent in

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141 *Ibid.*

142 2017 CMR at pg 303.

143 2018 CMR at Infographic 6.7.

144 CNOC is aware that in order to obtain the Competition Bureau's approval of its purchase of MTS, Bell Canada was required to divest ¼ of MTS' subscribers to TELUS, as well as an additional 24,700 subscribers to Xplornet. Nonetheless, the deal eliminated MTS as a competitor and made Bell Canada the largest mobile wireless provider in Manitoba. See Competition Bureau, "Competition Bureau statement regarding Bell's acquisition of MTS", 15 February 2017, http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04200.html#conclusion

the dominant position of the National MNOs and provide Canadians with the benefits of real competition in their mobile wireless market.

5.3 Barriers to entry and expansion in Canada's mobile wireless market

172. In section 2.6 of its first intervention to Telecom Notice of Consultation CRTC 2014-76,[145] CNOC extensively reviewed the barriers to entry and expansion in Canada's mobile wireless market. While CNOC made that submission in May 2014, nothing significant has changed and the insurmountable barriers to entry and expansion in Canada's mobile wireless market described therein continue to exist to this day.

173. The largest barrier to entry and expansion in Canada's mobile wireless market is the need to licence significant amounts of spectrum, which can cost upwards of a $1 billion, just to get a foothold in the marketplace.[146] This required level of investment is way beyond the capabilities of all of Canada's service-based competitors combined. Moreover, while new entrants must acquire their spectrum through auction, much of Canada's most valuable spectrum was essentially handed to the National MNOs at nominal prices in the 1980s and 1990s, which further undermines the inability of new entrants to compete against the dominance of the National MNOs.[147]

174. Aside from issues with the lack of access to spectrum at affordable rates, unreasonable terms and conditions for antenna tower and site sharing, vertical integration and service bundling, the network and operating costs associated with the deployment of new mobile wireless technologies and equipment, and coordinated interaction by the National MNOs are all insurmountable barriers to entry and expansion into Canada's mobile wireless market.[148]

175. Since CNOC made its intervention to TNC 2014-76, the Commission has taken some action to regulate the roaming rates charged by the National MNOs.[149] This regulatory relief only

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145 *Review of Wholesale Mobile Wireless Services*, Telecom Notice of Consultation CRTC 2014-76, 20 February 2014 ["TNC 2014-76"]..

146 CNOC's First Intervention to TNC 2014-76 at paras 47-49.

147 *Id.* at paras 53-54.

148 *Id.* at section 2.6.

149 Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, 5 May 2015 at paras 126-129.

came after Parliament intervened to temporarily cap what were clearly excessive roaming rates through section 27.1 of the *Telecommunications Act,* which was repealed once the Commission started regulating roaming rates.[150]

176. However, as demonstrated by the figures on market share described above from the 2018 CMR, these measures have not resulted in any significant reduction in the dominance of the National MNOs. In fact, all that happened was that regulated roaming rates allowed a handful of mobile wireless service providers, primarily owned by other Incumbents such as Shaw, SaskTel, Quebecor, and Eastlink ("Regional MNOs"), to survive and not be entirely driven from the market due to their inability to offer their end-users nationwide roaming at reasonable rates.

177. While CNOC is pleased that the Incumbent-owned Regional MNOs were not driven from the market, the data from the 2018 CMR indicates that they are not making any significant inroads against the dominance of the National MNOs. As demonstrated further below, this ongoing lack of progress in developing a truly competitive mobile wireless market results in Canadians paying some of the highest prices in the industrialized world for mobile wireless service.

178. The insurmountable nature of these barriers to entry and expansion to Canada's mobile wireless market is demonstrated by the case of Freedom Mobile, which, although being purchased by Shaw, one of Canada's largest Incumbents, and thus having access to all of Shaw's resources and carrying on business in a number of urban centres across Canada, still has been unable to make any dent in the dominance of the National MNOs. Moreover, another one of Canada's Incumbents, Cogeco, actually supports the idea of mandated access to the RAN of the National MNOs for MVNOs.[151] If an Incumbent like Cogeco believes that it is unable to muster the resources to overcome the barriers to entry and expansion in Canada's mobile wireless market, what chance is there for service-based competitors, such as CNOC members?

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[150] See Telecom Decision CRTC 2015-540, *Legislated wholesale domestic roaming caps under the Telecommunications Act*, 9 December 2015, at para 4.

[151] Comments of Cogeco Communications Inc. to the Competition Bureau's Market Study at paras 14-17.

179. A final barrier to entry and expansion, at least in the case of service-based competitors such as CNOC's members, is that none of the National or Regional MNOs are willing to offer MVNOs access to their RANs on reasonable terms and conditions, and, in many cases, are unwilling to even entertain the idea. The result is that Canada has almost no MVNOs that are not affiliated with the Incumbents. Due to the extremely concentrated nature of Canada's mobile wireless market in the hands of the National MNOs, which has crushed most meaningful competition, only mandated access obligations are likely to result in real competition developing.

180. As explained extensively in the Analysis Group MVNO report, there are no negative impacts on investment in mobile wireless infrastructure associated with mandated access for MVNOs, given the extremely high revenues of the National MNOs.[152] This conclusion is also supported by the Roetter Report.[153]

181. It is clear from these barriers to entry and expansion in Canada's mobile wireless market, that no facilities-based competitor is going to emerge such that the dominance of the National MNOs is seriously challenged. Thus, in the absence of the likely emergence of a serious facilities-based challenge to the dominance of the National MNOs, the most efficient solution to injecting a sufficient level of competition into Canada's mobile wireless market is to mandate access for MVNOs to the RAN and other essential facilities of at least the National MNOs.

182. CNOC has proposed legislative language in section 10.3 below to ensure that competitors are able to access the essential facilities of the National MNOs that would be necessary to establish MVNOs.

6.0 WIRELESS AND WIRELINE SERVICES ARE COMPLEMENTARY, NOT SUBSTITUTES

183. Certain of the Incumbents have made the argument that mandated access for wholesale broadband is no longer necessary as mobile wireless, and 5G mobile wireless in particular, is an effective substitute for broadband. While CNOC believes that Canada's mobile wireless market

[152] Appendix 4, Analysis Group MVNO Report, at pg 82.
[153] Appendix 1, Roetter Report, at pg 40.

is wholly uncompetitive, it is important to understand that mobile wireless will never be an effective substitute for, and will always lag behind, wireline broadband. As CNOC explained in section 2.7 of its intervention to TNC 2014-76, this is simply a matter of physics.[154]

184. CNOC does not deny that when solely looking at voice services, mobile wireless is an effective substitute for voice services delivered over wireline. However, when broadband data services are factored in, any notion of substitutability between wireline broadband and mobile wireless falls apart.

185. From a technical standpoint, all the theoretical capacity of spectrum, up to 100 GHz (of which mobile wireless is a very small fraction), would not equal the capacity of a single fibre optic strand.[155] As Nordicity pointed out in an expert report prepared by CNOC for its submission to TNC 2014-76:

> from a technical and physical perspective, mobile wireless networks will simply never have the capacity that can be realized by wireline systems, particularly fibre-optic based systems such as FTTH deployments. Each user would essentially require its own private, dedicated wireless tower to deliver the same throughput achievable with home-based FTTH connections. Such a deployment is not economically feasible."[156]

186. Moreover, mobile wireless and wireline services are also not substitutes when looking at economic (price) non-substitutability. Nordicity's report on the substitutability of wireline and wireless services concluded that in order to achieve comparable service via wireless, at various usages levels, to what an end-user could achieve via wireline, the end-user would be compelled to pay 10 to 20 times as much.[157] For moderate usage, this could easily place an end-user's mobile wireless bill in the thousands of dollars per month if it attempted to replicate its wireline services via mobile wireless.[158]

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154 CNOC Intervention to TNC 2014-76 at section 2.7
155 *Id.* at para 117.
156 CNOC Intervention to TNC 2014-76, at Nordicity Substitutability Report, p. 35.
157 CNOC Intervention to TNC 2014-76 at paras 119-127.
158 *Ibid.*

187. CNOC recognizes that Nordicity's report was prepared in 2014, but the fundamental point remains the same, although the exact numbers may have varied: from a price standpoint, wireline and mobile wireless services are not substitutes. For example, Rogers is currently offering Internet packages with 150 Mbps download and 15 Mbps upload and unlimited usage for $107.99 per month.[159] For the roughly equivalent price of $115.00 per month, and assuming the end-user had its own phone, that same end-user would obtain a mere 16 GB of permitted usage per month with a mobile wireless plan from Rogers.[160] To put that in context, 16 GB is only 16 hours of streaming Netflix in standard definition and 5.33 hours of streaming Netflix in high definition.[161] The other mobile wireless service providers show similar price disparities between their wireless and wireline service offerings.

188. Consequently, it is clear that from both an economic and technical perspective, wireline and wireless services are not substitutes.

189. Instead, as the Roetter report demonstrates, as a result of the growing use of bundles, the desire of consumers to access subscription-based content on any device and from any location, and the use of Wi-Fi offload, it is best to think of mobile wireless services as complementary to wireline services, but certainly not substitutes.[162]

7.0 INTERNATIONAL COMPARISONS

190. In assessing the state of Canadian telecommunications, it is useful to compare Canada to other industrialized states, both in terms of the price of telecommunications services, as well as the different regulatory regimes that are used. Unfortunately, due to the continually impaired state of competition in Canada's telecommunications markets, Canadians pay amongst the highest prices in the world for their telecommunications services.

159 Rogers, "Internet", https://www.rogers.com/consumer/internet.
160 Rogers, "Wireless Plans", https://www.rogers.com/consumer/wireless/smartphone-plans?ipn=1.
161 Netflix, "How can I control how much data Netflix uses", https://help.netflix.com/en/node/87.
162 Appendix 1, Roetter Report, at pg 17.

7.1 International price comparisons

191. Canadians pay amongst the highest rates in the industrialized world for mobile wireless and fixed broadband services and have continued to do so for many years. Much of the evidence below relies upon data from the 2018 Wall Report. CNOC is aware that TELUS has commissioned a report by NERA Economic Consulting ("NERA Report") disputing the conclusions of the 2018 Wall Report. The Roetter report provides a comprehensive rebuttal to the NERA Report and CNOC urges the Panel to stand by the conclusions of the 2018 Wall Report.

7.1.1 Mobile wireless services

192. In terms of mobile wireless services the 2018 Wall Report found that across six different service baskets, Canadians paid amongst the highest rates in the industrialized world with only the United States and/or Japan occasionally ranking as more expensive, depending on the service basket.[163] However, in all cases, prices in the United Kingdom, France, Germany, Italy, and Australia were significantly lower than in Canada, sometimes by more than 50%.[164]

193. In addition, while American mobile wireless providers generally provided roaming throughout Canada at no extra charge as an included feature in their unlimited plans, no such feature was provided by any Canadian mobile wireless service provider for their end-users roaming in the United States.[165]

194. Canada's poor international ranking for the price of mobile wireless services is confirmed by the Roetter Report, which, relying upon data from the OECD, finds that on a purchasing power parity basis, Canada ranks 31 out of 35 when looking at low-usage plans, 29 out of 35 when looking at medium-usage plans, and 32 out of 35 when looking at high-usage plans.[166] According to the Roetter Report, these findings are also consistent when looking at data from the Federal Communications Commission ("FCC").[167]

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163 Wall Communications Inc., "Price Comparisons of Wireline, Wireless, and Internet Services in Canada and with Foreign Jurisdictions, 2018 Edition", 29 August 2018, at section 4.3 ["2018 Wall Report"].
164 *Ibid*.
165 *Id*. at section 4.4.
166 Appendix 1, Roetter Report, at pgs 29-31.
167 *Ibid*.

195. Overall, it is clear that Canadians are paying amongst the highest prices in the world for mobile wireless services.

7.1.2 Fixed broadband

196. The picture is similarly bleak when comparing the price of fixed broadband in other industrialized countries versus the price of Canada. According to the 2018 Wall Report, with the exception of the lowest two service baskets, which many of our international counterparts no longer offer as they are increasingly obsolete services, Canada was generally the second most expensive jurisdiction for fixed broadband, second only to the United States.[168] As is the case with mobile wireless services, certain jurisdictions, such as the United Kingdom (where the telecom incumbent was functionally separated several years ago[169]) and Italy, were able to provide broadband service at less than 50% of the price of the equivalent service package in Canada.[170]

The 2018 Wall Report also notes that since the price comparison study was first conducted for ISED in 2008, the prices of fixed broadband in European countries (U.K., France, Italy, and Germany) have consistently been lower than prices in Canada, often by a significant margin.[171]

197. The conclusions of the 2018 Wall Report are consistent with the findings of the Roetter Report, which, relying upon data from the FCC, and OECD, also found that Canada consistently ranked amongst the most expensive countries for fixed wireline broadband service. The only service category on which Canada performed moderately well in terms of price was in the provision of increasingly out of date service packages with download speeds of up to 25 Mbps.[172]

198. Overall, it is clear that Canadians are paying amongst the highest rates in the industrialized world for fixed broadband services.

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168 2018 Wall Report at section 5.3.

169 Liz Tay, "BT: Functional separation was a success", *itnews*, 4 November 2009, https://www.itnews.com.au/news/bt-functional-separation-was-a-success-159659,

170 2018 Wall Report at section 5.3.

171 *Ibid*.

172 Appendix 1, Roetter Report, at pg 24.

7.2 International regulatory comparisons

199. The Roetter Report reviews the regulatory approaches in "best-in-class" jurisdictions that not only have high quality telecommunications networks, but also routinely best Canada in price comparisons in both fixed broadband and mobile wireless services.[173]

200. Amongst the key findings of the Roetter Report are that, given the lack of competition in Canada's telecommunications markets, imposing wholesale obligations on the operators of telecommunications infrastructure in both the fixed wireline broadband and mobile wireless would be beneficial.[174] More significant wholesale obligations than currently exist would result in increased innovation and lower prices for telecommunications services.[175] In addition, the Roetter Report finds that wholesale obligations do not negatively impact incentives to invest in infrastructure, and that, if they are implemented appropriately, can actually stimulate investment in infrastructure.[176]

201. The conclusion that wholesale access does not result in negative impacts on investment, in either fixed broadband or mobile wireless infrastructure, is further supported by the Analysis Group FTTP Report and the Analysis Group MVNO Report, respectively.

202. As the Analysis Group MVNO Report states:

> The most recent academic research on competition and investment in the wireless telecommunications industry finds an inverted-U relationship between the intensity of competition and investment. More specifically, it finds that there is no trade-off between competition and investment as long as profits are above a certain threshold, above which a wireless carrier's investment increases with the intensity of competition. Furthermore, this empirical research also shows that wireless operators which host an MVNO invest more than their rivals, directly contradicting the assertions of experts for the National Wireless Carriers. Given the low intensity of competition in Canadian mobile wireless telecommunications markets (and corresponding high profitability levels of the National Wireless Carriers), any increase in competition from mandating access to Wi-Fi First service providers is unlikely to depress investment in wireless network infrastructure.[177]

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173 Appendix 1, Roetter Report, at pg 4.
174 Appendix 1, Roetter Report, at pgs 36-39.
175 *Id.* at pgs 33-34, 37-39.
176 Appendix 1, Roetter Report, at pg 40.
177 Appendix 4, Analysis Group MVNO Report, at para 13.

203. Moreover, as the Analysis Group FTTP Report states:

> The key assumption of the empirical framework in Bell Canada's Petition, based on which the estimate of the hypothesized impact on fibre-to-the-home investment is derived, is inherently problematic in the context of the telecommunications industry. As illustrated by the application to Bell Aliant's investment in FTTN and FTTH technologies, its results are implausible and contradict economic reasoning and business realities. The analysis is misleading and does not provide a credible estimate of the investment effect of the CRTC's policy to mandate the provision of disaggregated wholesale high-speed access services, including FTTH facilities.
>
> Announcements of sizable next generation broadband infrastructure investments following the release of TRP CRTC 2015-326, public statements and investor reports from incumbent broadband providers, as well as comprehensive financial analyses of FTTH networks in Canada are entirely consistent with the CRTC's assessment that incumbent carriers will continue to invest in FTTH infrastructure to respond to consumer demand and to compete with cable carriers, particularly in urban areas.[178] [Footnotes omitted]

204. Overall, in the case of Canada, the Roetter Report concludes that:

> **The most practical path towards increasing and overcoming the demonstrable weakness of competition in Canada's broadband market - in both the fixed wireline and mobile wireless segments – lies in the application of fair and reasonable mandated wholesale provisions**.
>
> These wholesale provisions should not be limited to setting economically justifiable prices, but must include other conditions, such as timing of order processing, installations and repair for wholesale customers that is equivalent to that offered to retail customers. The wholesale rules should also be forward looking, anticipating the arrival of new network technologies, and follow the principle of technology-neutrality. Wholesale conditions should be established for new essential infrastructure as it is deployed, not after years of litigation and negotiation, so as to avoid unreasonable or competitively harmful delays in the ability of CSPs to offer services that are comparable in performance with the retail services of network operators. The non-price aspects or non-price terms and conditions in agreements and the resulting operating arrangements for the use of wholesale services between operators and CSPs are of critical importance, if the latter are to be responsive to the demands and expectations of retail end-users and able to compete fairly for their custom. They are an integral part of the framework for wholesale provisions. [Emphasis in original][179]

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178 Appendix 3, Analysis Group FTTP Report, at paras 12-13.
179 Appendix 1, Roetter Report, at pgs 38-39.

8.0 THE IMPORTANCE OF COMPETITION TO CANADIAN TELECOMMUNICATIONS

205. It is notable that in 2018, CNOC is not aware of any members of the telecommunications industry, even amongst the incumbents, that deny the importance of competition to Canadian telecommunications. Indeed, in its recent submission to the broadband market study being conducted by the Competition Bureau, even Bell Canada did not deny the importance of competition and argued that it competes vigorously with its cable company rivals.[180]

206. The differences that emerge between members of the industry are as to the appropriate degree of competition and whether or not joint dominance by a handful of massive, vertically integrated, telecommunications companies, such as, depending on the region of Canada, Bell, Rogers, Shaw, and TELUS, represents a sufficient degree of competition to protect the interests of Canadian consumers and businesses. CNOC submits that it does not and that the presence of competitors that primarily rely upon wholesale inputs from the Incumbents are necessary to prevent the Incumbents from abusing their dominant positions.

207. Service-based competitors consistently outperform or differentiate themselves from the incumbents on a number of metrics, including in the areas of affordability and innovation. By lowering prices and offering innovative service offerings, service-based competitors also increase output by encouraging end-users to make greater use of telecommunications services and fully participate in the digital economy. Creating a sustainable competitive environment is also the most efficient form regulation.

208. Finally, a pro-competition framework for Canadian telecommunications is required by the recently negotiated USMCA.

8.1 Competition improves the affordability of telecommunications services

209. The evidence is undisputable, vigorous competition amongst a significant number of service providers results in decreased prices for telecommunications services. As the

[180] BCE Inc. Comments to the Competition Bureau Market Study, at para 8.

telecommunications world is increasingly moving towards convergence, where all services are delivered in IP-based formats, CNOC has chosen to focus its review of the evidence of the positive impact that competition has on affordability on broadband and mobile wireless services.

210. Examining these two sectors of Canada's telecommunications industry irrefutably demonstrates that a greater number of telecommunications service providers results in more affordable options for Canadian consumers and businesses. In addition, the evidence from the broadband sector demonstrates that service-based competitors, such as CNOC's members, offer significant discounts over the prices charged by the facilities-based incumbents.

211. Unfortunately, unlike many other jurisdictions around the world, including the United States, there are almost no MVNOs in Canada's mobile wireless sector. The effect of this is obvious in the evidence presented below. While mobile wireless prices are lower in parts of the country with a greater number of service providers, the effect is not nearly as significant as in the broadband sector, which benefits from the presence of service-based competitors.

212. It is important to note that service-based competitors do not offer more affordable prices as a result of some form of regulatory arbitrage.

213. In fact, service-based competitors offer more affordable prices in order to compete against the entrenched positions of the Incumbents and are able to do so, despite all the other obstacles facing their businesses described above, as a result of their more efficient business operations. For example, many service-based competitors do not have retail store fronts and instead save costs by conducting business only online.

8.1.1 Competition improves the affordability of wireline broadband services

214. As noted in the Competition Bureau's notice of market study[181], service-based competitors offer such access to wireline broadband services at prices that can be as much as 30% lower than those advertised by the Incumbents.[182]

215. The more recent 2018 Wall Report[183] confirms that service-based competitors offer lower prices than Incumbents across all service baskets (footnotes omitted):[184]

Incumbent versus Service-based ISPs[185]

Baskets	Incumbents	Service-based ISPs	Differential
Level 1	$42.23	$43.10	2.05%
Level 2	$66.34	$49.62	-25.21%
Level 3	$77.50	$50.34	-35.04%
Level 4	$90.57	$68.76	-24.08%
Level 5	$105.65	$92.56	-12.56%
Level 6	$127.61	n/a	n/a

216. For reference, the 2018 Wall Report defines its service baskets as follows (footnotes omitted):[186]

- Level 1:
  - Speed: "basic" Internet service with advertised download speed of up to 3 to 9 Mbps.
  - Data usage per month: 10 GB
-

[181] Bureau Market Study Notice, at para 6.

[182] 2017 Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions, NGL Nordicity Group Ltd., Oct. 5, 2017, (the "Nordicity Report") at p.48, available at https://www.ic.gc.ca/eic/site/693.nsf/vwapj/Nordicity2017EN.pdf/$file/Nordicity2017EN.pdf

[183] *Ibid.*

[184] *Ibid.*

[185] The 2018 Wall Report refers to service-based ISPs as "resellers". CNOC objects to this terminology as it implies that service-based competitors do not innovate and merely resell the Incumbents' services and thus has replaced "reseller" with "service-based ISPs".

[186] *Id.*, at pg. 43.

- Level 2:
    - Speed: "average" (Canadian) high-speed Internet service with advertised download speed of 10 to 15 Mbps (targeted speed in the upper end of the range).
    - Data usage per month: 50 GB.
- Level 3:
    - Speed: high-speed Internet service with advertised download speed of 16 to 40 Mbps (targeted speed in the upper end of the range).
    - Data usage per month: 100 GB.
- Level 4:
    - Speed: high-speed Internet service with advertised download speed of 40 to 100 Mbps (targeted speed in the upper end of the range).
    - Data usage per month: 150 GB.
- Level 5:
    - Speed: high-speed Internet service with advertised download speed of 100 to 250 Mbps (targeted speed in the upper end of the range).
    - Data usage per month: 500 GB
- Level 6:
    - Speed: high-speed Internet service with advertised download speed of 250 to 500 Mbps (targeted speed in the upper end of the range).
    - Data usage per month: 500 GB or Unlimited

217. Thus, across all service baskets, with the exception of Level 6, which most service-based competitors are unable to access, competitors offer substantially lower prices with discounts ranging from -2.05% to 35.04%.[187]

218. The Level 6 service basket described in the Wall Report represents speeds that are generally only obtainable over FTTP facilities. The reasons why service-based competitors are unable to access the FTTP facilities of the incumbents has been discussed above.

219. The findings of the 2018 Wall Report are also borne out by the Commission's 2018 CMR, which found that in parts of the country that featured greater number of ISPs and greater use of wholesale broadband services, prices for broadband Internet were consistently lower.[188]

[187] *Id.* at pgs 42-43.
[188] 2018 CMR at 25/3 Mbps service with at least 100 GB of monthly data transfer.

220. For example, for residential Internet packages with speeds of 25 Mbps download and 3 Mbps upload, and a 100 GB per month data cap, prices in St. John's, Newfoundland and Labrador, which only had two ISPs identified as providing service, were reported in the 2018 CMR as ranging from $70.00 to $92.00 per month.[189] In contrast, for the same service package in London, Ontario, in which thirteen different ISPs, including many service-based competitors, prices were reported as ranging from $39.00 to $75.00 per month.

221. Importantly, the benefits of service-based competition are not limited to price discipline. Service-based competitors generate a myriad of other innovations that are a direct benefit to their customers.

8.1.2 Competition improves the affordability of mobile wireless services

222. As with the wireline broadband sector, it is a demonstrated fact that greater competition in mobile wireless markets improves affordability. Unfortunately, as explained above, the state of competition in Canada's mobile wireless markets is particularly tepid, primarily because of the lack of meaningful mandated wholesale access obligations that would compel incumbents to grant access to their mobile wireless networks to service-based competitors.[190]

223. The Commission's 2018 CMR indicates that areas with a greater number of mobile wireless service providers have the lowest prices for mobile wireless service. For example, for mobile wireless service with unlimited voice and SMS messaging and 5 GB of data, prices in Whitehorse, Yukon, which had three mobile wireless service providers, ranged from $65.00 to $99.00 per month.[191] In contrast, in Hamilton, Ontario, with four mobile wireless service providers, prices ranged from $50.00 to $85.00 per month.[192]

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189 *Id.* at Figure 2.9.

190 CNOC is aware that the 2018 Wall Report has a section examining the prices offered by MVNOs and resellers, in particular, those offered by Primus and PC Mobile. CNOC notes that these are outlier cases with extremely limited penetration into Canada's mobile market and that the arrangements between Primus and PC Mobile and the Incumbents were commercially negotiated and were not the result of any mandated wholesale access obligation. The unreasonable terms and conditions offered by the incumbents for wholesale access to their networks is demonstrated by the fact that in many instances, MVNO and reseller prices for mobile wireless service in Canada are actually higher than Incumbent pricing, which defies wholesale pricing principles whereby wholesale pricing should be lower than the Incumbents retail pricing.

191 2018 CMR at Figures 2.17.

192 *Ibid.*

224. It stands to reason that with even more mobile wireless service providers, at levels similar to what is seen in many parts of Canada with broadband, that is to say ten or more wireless service providers, including a mix of facilities-based and service-based providers, prices for mobile wireless service in Canada would be even lower.

225. This is not mere hypothetical conjecture. An MVNO, Sugar Mobile Inc., operated by an affiliate of Iristel and Ice Wireless, was able to offer plans that were approximately 75% less expensive than the average price paid by Canadian consumers for comparable plans before its ability to operate was curtailed by a regulatory decision of the Commission.[193]

226. Similarly, in the United States, where dozens of MVNOs operate, these service-based competitors routinely offer mobile wireless plans that are 50% or more less expensive than those offered by the American incumbents.[194]

227. CNOC is aware that the Commission has recently successfully pressured the National MNOs to introduce relatively low-cost data-only plans for mobile wireless services in an effort to combat what is evidently extremely high mobile wireless service prices in Canada.[195] However, these plans are not an effective long-term solution to the lack of competition in Canada's mobile wireless markets. Firstly, the plans are not actually mandated and the National MNOs could withdraw them at anytime. Secondly, retail price regulation is inefficient as it requires constant Commission monitoring of economic data to determine appropriate retail price levels. Thirdly, the fact that the Commission felt compelled to engage in retail price regulation at all is demonstrative of the fact that competition has failed to develop in Canada's mobile wireless market.

228. Overall, the evidence is clear, as with fixed broadband services, an increased number of mobile wireless service providers, and an increased amount of competition between these mobile

193 Appendix 4 at para 54.
194 Ice Wireless Inc., Intervention to TNC 2017-259 at paras 32-49.
195 Telecom Decision CRTC 2018-475, *Lower-cost data-only plans for mobile wireless services*, 17 December 2018.

wireless service providers, results in lower prices for Canadians. However, as explained above, efforts to stimulate a sufficient level of competition amongst facilities-based service providers have clearly failed, as demonstrated by the Commission's recent need to engage in retail price regulation. Only the provision of mandated wholesale access for MVNOs will provide Canada with a sufficient level of competition in its mobile wireless markets.

8.2 Competition injects innovation into Canadian telecommunications

229. Competitive differentiation is essential for a service-based competitor looking to put its best foot forward in a market jointly dominated by large carriers enjoying major incumbency advantages. This drive for competitive differentiation is a catalyst for service-based innovation. CNOC members constantly strive to meet consumer needs in new and creative ways. Innovations by service-based competitors generally fall within four broad categories: (i) customer service; (ii) unique service offerings; (iii) technical advances; and (iv) the provisioning of quality telecommunications services in underserved rural and minority communities. Each of these categories of service-based innovation are discussed below, in turn.

230. As background, the evidence in this section is derived directly from CNOC members. The evidence below is a summary of the responses that CNOC members provided. The innovative output of CNOC members serves as a case study for the class of service-based providers as a whole.

231. Customer service is a high business priority for service-based competitors. CNOC members have indicated that they are focused on fostering rich customer relationships through personalized, responsive and compassionate customer service and support. CNOC members identified a diverse array of innovative policies and services to ensure that consumers receive high-quality customer service. Whether these initiatives are minor, major, simple or complex, they have translated into tangible value for consumers served by CNOC members. These innovations include:

- 24 / 7 support in both official languages and in several cases, in a variety of ethnic minority languages;

- Domestic (and generally locally-situated) customer service departments and call centres employed with Canadians;
- Knowledgeable support staff with network experience. Many CNOC members reported that their front-line call-centre staff are fully trained to handle almost all support issues so customers only need to talk to one person to have their problem resolved;
- Network monitoring and reporting features so that customers are promptly notified of network issues;
- Accurate and timely reports on subscriber data usage and billing data;
- Remote management of customer equipment and software for technical support purposes; and
- Customer controlled account management capabilities enabling subscribers to make changes to their services and plans remotely.

232. When it comes to service offerings, several CNOC members have made flexible and customizable solutions the defining feature of their businesses. Other members have assembled a catalogue of service offerings that are markedly different than those of the Incumbents in order to empower consumers with real choice when it comes to the main categories of telecommunications services. The innovative service offerings of CNOC members are especially evident when it comes to monthly data cap packages and data management options. A considerable portion of CNOC's membership have offered unlimited Internet and flexible usage options such as off-peak usage incentives for many years, including throughout periods where restrictive usage caps and high overage charges by Incumbents plagued the industry.

233. Some CNOC members have also developed unique service specializations over time. For example, some CNOC members focus primarily on providing quality services to a business clientele. These solutions are highly configurable and include services such as IP-Hosted PBX SOHO, IP-PBX SME solutions and Hosted Virtual Server. Business specialists among CNOC's membership also provide managed connectivity options that utilize redundant paths for failover and resiliency in addition to secured data backup and recovery solutions. Customers value these solutions and the specialized experience of the providers that offer them.

234. CNOC members have also successfully deployed a great number of technical innovations to bolster both their business and residential service offerings, including:

- The introduction of unique IPTV offerings, including on mobile devices;

- The introduction of feature-laden VoIP services;
- The deployment of FTTP networks in limited situations where feasible, including in rural, remote, and otherwise underserved areas;
- The development of IPv6 ready networks;
- Custom-built customer portals and account management tools;
- The development of web-based (office extensions, web-based softphone applications, etc.) and social media innovations;
- The adoption of crowd sourced customer-initiated innovations;
- The development of smart home and business applications;
- Unique connectivity solutions for smart homes, smart businesses, and smart farms;
- The development of a variety of Blackberry, iPhone and Android applications;
- Redundancy and failover solutions;
- Automatic data backup and storage for PC, MAC and smartphones;
- Internet bonding techniques (including Multilink Point to Point Protocol or "MLPPP") to increase speed capabilities;
- The development and deployment of Multiprotocol Label Switching ("MPLS") mechanisms;
- Technical literacy courses for elderly customers;
- WiFi deployment technologies for campgrounds, historical sites, and other unique cases; and
- Automatic safeguards to protect end-users and mitigate damage from malware and denial of service attacks.

235. Finally, certain CNOC members also focus their operations on serving ethnic minority communities in their serving areas. This often involves providing customer service in the native language(s) of the community in question. In most cases, this level of dedication to local communities simply cannot be replicated by the Incumbents.

236. To the extent the Incumbents have started providing some of these same services it was, in many cases, only years after competitors such as CNOC's members started providing them in order to differentiate themselves in the marketplace.

237. Overall, competition necessarily results in innovation as competitors seek to differentiate themselves in the marketplace and gain market share. This is particularly true for new entrants who must fight to survive and differentiate themselves from the Incumbents

8.3 Other benefits of competition

238. From a strictly economic perspective, service-based competitors increase output. By historically offering higher data caps, and more flexible data usage options and lower prices, service-based competitors play an important role in making more broadband available to Canadian consumers. From a theoretical perspective, increased output in a healthy market should translate into benefits for buyers such as lower price and more choice.

239. The Ware Report confirms the benefits of service-based competition in terms of broadband diffusion.[196] Professor Ware explains that a recent study used data from 167 broadband markets over a time horizon of 11 years to assess the effects of competition regulations.[197] The study found that service-based competition could accelerate the diffusion of broadband access, whereas inter-platform competition generally does not lead to faster broadband roll out.[198]

240. Over time, service-based competitors also increase their investment in facilities when and where it is efficient to do so.[199] Most commonly, these investments occur in transmission facilities such as fibre transport paths, as well as in underserved areas that have been neglected by the Incumbents.

241. Creating the appropriate conditions for retail competition to thrive is also the most efficient means of regulation. If sustainable competition can be established in Canada, which CNOC submits is only possible with a robust wholesale regime that acknowledges the reality of the entrenched dominance of the Incumbents, it will reduce the need for constant regulatory proceedings before the Commission, which consume significant and scarce industry and regulatory resources.

196 Appendix 2, Ware Report, at para 30.
197 *Ibid.*
198 *Ibid.*
199 *Id.*, at paras 32-36.

8.4 A pro-competition framework is required by the USMCA

242. The recently negotiated USMCA also requires Canada to adopt a pro-competition framework for its telecommunications industry. In particular, Articles 18.6 through Article 18.8 provide as follows:

> **Article 18.6: Competitive Safeguards**
>
> 1. Each Party shall maintain appropriate measures for the purpose of preventing suppliers of public telecommunications services that, alone or together, are a major supplier in its territory from engaging in or continuing anti-competitive practices.
>
> 2. The anti-competitive practices referred to in paragraph 1 include in particular:
> (a) engaging in anti-competitive cross-subsidization;
> (b) using information obtained from competitors with anti-competitive results; and
> (c) not making available, on a timely basis, to suppliers of public telecommunications services, technical information about essential facilities and commercially relevant information that are necessary for them to provide services.
>
> **Article 18.7: Resale**
> Each Party shall ensure that a major supplier in its territory does not impose unreasonable or discriminatory conditions or limitations on the resale of its public telecommunications services.
>
> **Article 18.8: Unbundling of Network Elements**
> Each Party shall provide its telecommunications regulatory body the authority to require a major supplier in its territory to offer to public telecommunications service suppliers access to network elements on an unbundled basis on terms and conditions, and at cost-oriented rates, that are reasonable, non-discriminatory, and transparent for the supply of public telecommunications services. A Party may determine the network elements required to be made available in its territory, and the suppliers that may obtain those elements, in accordance with its laws and regulations.

243. Article 18.1 defines "non-discriminatory" as follows: non-discriminatory means according treatment no less favorable than that accorded to any other user of like public telecommunications services in like circumstances, including with respect to timeliness."

244. In addition, in Article 18.16, the Parties to the USMCA "recognize the value of competitive markets to deliver a wide choice in the supply of telecommunications services and to enhance consumer welfare […]".

245. As set out throughout this submission, CNOC believes that the current regulatory framework does not comply with the requirements of Articles 18.6 to Article 18.8 due to the rampant anti-competitive practices of the Incumbents, which the current legislative framework is insufficient to restrain.

246. Through its adherence to the USMCA, the Government of Canada has signalled that it accepts the pro-competitive framework required by the USMCA and, should the agreement proceed to be ratified in the coming months, the Panel's recommendations will need to be consistent with the USMCA.

9.0 LEGISLATIVE REFORM CAN ENHANCE COMPETITION IN CANADIAN COMMUNICATIONS

247. Legislative reform is the surest and most durable method of addressing the competitive issues described above due to the more permanent nature of legislation versus individual regulatory decisions.

248. Of course, due to the vital and urgent need for reform CNOC is also seeking to remove these systemic barriers to effective competition in ongoing proceedings before the Commission and the Competition Bureau. CNOC's members are also prepared to, and have been, seeking relief from the courts where anti-competitive conduct by Incumbents that violates laws or contracts has led to CNOC's members incurring damages. However, seeking relief in the courts is both extremely costly and a very lengthy process than can stretch on for years.

249. CNOC emphasizes that its proposed legislative reforms are not designed to artificially favour any particular telecommunications service provider or class of telecommunications service providers. Under CNOC's proposed framework, some competitors will succeed, and others will fail, this is the very nature of a truly competitive market. However, what CNOC does seek to achieve is a greater levelling of the playing field between the Incumbents and competitors such that competitors, including service-based competitors, can have a realistic opportunity to maximize the value they bring to the marketplace.

250. CNOC anticipates that the proposed legislative reforms discussed in the remainder of this submission will achieve the more level playing field between Incumbents and competitors that it seeks and that Canadian consumers and businesses will be the beneficiaries of enhanced competition.

251. CNOC has based some of its proposed legislative language on the language used in the 2007 *A Model Act to Implement the Regulatory Recommendations of the Telecommunications Policy Review Report*. However, this does not mean that CNOC endorses the 2007 Model Act as a whole, or the conclusions of the 2006 Final Report of the Telecommunications Policy Review Panel ("2006 TPRP Report") as a whole that the 2007 Model Act purports to translate into legislation. CNOC has serious concerns with many of the provisions of the 2007 Model Act, which would reduce the ability of the Commission to address the barriers to competition described above effectively, and the conclusions of the 2006 TPRP Report that led to these provisions. Nonetheless, where CNOC agrees with the conclusions of the 2006 TPRP Report and/or the legislative language of the 2007 Model Act, CNOC has, as a matter of efficiency, relied upon these conclusions and legislative language.

252. CNOC has sought to harmonize the legislative language in its updated versions of the *Telecommunications Act*, *Broadcasting Act*, *CRTC Act*, *Radiocommunication Act* and Policy Direction. CNOC has also sought to use the clearest and simplest legislative language possible.

10.0 CNOC'S PROPOSALS FOR A REFORMED *TELECOMMUNICATIONS ACT*

253. This Section 10 sets out CNOC's specific proposals for a reformed *Telecommunications Act*, as well as CNOC's answers to certain questions posed by the Panel regarding the *Telecommunications Act* and CNOC's commentary regarding proposals of other parties for reforms to the *Telecommunications Act*.

254. In some instances, CNOC is proposing significant changes to the language of the *Telecommunications Act*, including the addition of entirely new sections or the removal of entire sections. In other cases, CNOC is proposing only minor updates to the language of the current

Telecommunications Act. CNOC also recommends that some of the current language in the *Telecommunications Act*, should be maintained.

255. The text of CNOC's proposed changes to the *Telecommunications Act* is attached as Appendix 8.

10.1 Limiting distinctions between Canadian carriers and TSPs

256. As set out more fully in Appendix 8, and referred to in a few instances above, CNOC is proposing to largely eliminate the distinction in legislation between Canadian carriers and telecommunications service providers, where it makes sense to do so. The intent of this change is to reflect the fact that TSPs, which includes service-based competitors, are just as important to the telecommunications ecosystem as Canadian carriers, and thus should have the same obligations and responsibilities, including the obligation not to unjustly discriminate against any person.

257. CNOC has also proposed a slight modification to the definition of "telecommunications service provider" in subsection 2(1) to remove the modifier "basic" from in front of "telecommunications service provider". The intent of this change is to ensure that all possible telecommunications service providers operating within Canada are able to be regulated under the *Telecommunications Act*, not just those that provide basic telecommunications service. However, pursuant to an amendment to section 32, it would be clear that the Commission would have the power to declare certain classes of telecommunications services to be "basic".

258. CNOC has not made any changes to the references to Canadian carriers in section 16 dealing with Canadian ownership and control restrictions as the purpose of this section is appropriately focused on limiting the degree to which telecommunications facilities are owned and controlled by foreign entities.

10.2 The policy objectives of the *Telecommunications Act* need to be streamlined

259. Section 7 of the current *Telecommunications Act* contains nine subsections setting out various policy objectives of Canada's telecommunications policy. These nine separate policy objectives are sometimes vague, often redundant, are not prioritized, and overall have led to significant lack of clarity on the purpose of Canada's telecommunications policy. In fact, the

current policy objectives are so extensive and broad that during regulatory proceedings before the Commission, just about every party can find a policy objective to support its position, no matter how outlandish it may be. The Panel should recommend that the policy objectives of the *Telecommunications Act* be streamlined and clarified so that all participants in the regulated system, including the Commission, actually understand what the objectives are.

260. CNOC submits that the true purpose of the *Telecommunications Act* is captured in the following policy objective:

> **Section 7** It is hereby affirmed that the Canadian telecommunications policy has as its objective to make available reliable and affordable telecommunications services of high quality to Canadians in both urban and rural areas in all regions of Canada.

261. CNOC submits that the overarching purpose of the *Telecommunications Act* should be to ensure that all Canadians are able to access high quality and affordable telecommunications services, regardless of where they live in Canada. After all, none of the other current objectives can be achieved without this first precondition, of ensuring access for all, is achieved.

262. CNOC is also proposing certain principles be inserted into the legislation that shall guide the Commission in interpreting the telecommunications policy objective:

> **Section 7.1** In interpreting the telecommunications policy objective, the Commission shall be guided by the following principles:
>
> (a) regulatory measures shall be adopted and applied with a view to fostering, to the maximum extent possible, competition in the provision of telecommunications services;
>
> (b) every wholesale competition service shall be made available:
>
> (i) as promptly as possible to avoid the prevention or lessening of competition due to wholesale lag;
>
> (ii) at rates set at levels calculated by strict adherence to the current rate methodology;
>
> (iii) at quality of service levels that are as equivalent as possible to the quality of service levels that the provider of the wholesale competition service provides to its own downstream retail services whose existence

are dependent on the availability of the same essential facilities incorporated in the wholesale competition service.

(c) access to telecommunications by persons with disabilities shall be facilitated:

(d) public safety and security shall be maintained;

(e) the protection of personal privacy shall be pursued; and

(f) public nuisance through communications shall be limited.

263. CNOC notes that it has defined "wholesale lag" in subsection 2(1) as "the amount of time between the launch of a retail telecommunications service and a corresponding upstream wholesale competition service". Subsection 2(1) also includes a definition of "current rate methodology" and provides a context for the term "quality of service". See paras, 285 and 286 of this submission below.

264. These principles stem from CNOC's belief that it is necessary for a reformed *Telecommunications Act* to acknowledge Canada's legacy of monopolies, which continues to stifle competition and drive up prices for Canadians, thus undermining the goal of achieving universal access. Therefore, CNOC is recommending that it be made clear in the principles that the Commission must use to interpret the policy objective that there is a need to establish sustainable competition in Canadian telecommunications markets, and that, in order to achieve this sustainable competition, the issues with wholesale services described above must be remedied once and for all.

265. These principles also acknowledge that, once access to telecommunications services is, at least theoretically possible, there are certain social principles that the Commission must consider in achieving the policy objective, including ensuring access for persons with disabilities, maintaining public safety and security, contributing to the protection of privacy, and limiting public nuisance through telecommunications. The purpose of these principles is to ensure that access is not merely theoretical, but that all Canadians, including those with disabilities can access high quality and affordable telecommunications services, as well as to ensure that

telecommunications are not misused so that achieving universal access does not have a negative impact on the lives of Canadians, through cyber-attacks or nuisance calling, for example.

266. CNOC also notes that while it has removed any discussion of ensuring Canadian ownership of telecommunications facilities and carriers by Canadians, that it is not commenting on the appropriateness of this policy. However, it is redundant to have Canadian ownership and control as a policy objective as the Canadian ownership and control provisions in section 16 of the current *Telecommunications Act*, which CNOC is not proposing modifying, already provide comprehensive rules to ensure Canadian ownership and control.

267. With regard to the current objective in subsection 7(g) to stimulate research and development in the field of telecommunications, CNOC submits that research and development is best stimulated by focusing on establishing competition in telecommunications as firms in a competitive environment are required to continually innovate to survive.

268. CNOC urges the Panel to streamline the policy objectives such that they focus on ensuring universal access for all Canadians and enhancing competition.

10.3 There must be prompt and effective access to essential facilities

269. Question 2.1 of the Terms of Reference asks: "Are legislative changes warranted to better promote competition, innovation, and affordability?" Based on the many problems with competition and affordability described further above, legislative changes are most certainly warranted. The current legislative framework has failed to deliver a suitable level of competition or affordability in Canadian telecommunications.

10.3.1 Service-based competitors are currently unable to obtain prompt and effective access to essential facilities

270. As CNOC has extensively described above, and in the related Appendices, the inability of service-based competitors to access the essential facilities of the Incumbents promptly, and on

reasonable terms and conditions, is seriously undermining the sustainability of competition in Canadian telecommunications.

271. For example, the continued inability of service-based competitors to access the FTTP facilities of the Incumbents is pushing many service-based competitors to the brink of having to shut down operations due to their inability to obtain subscribers on increasingly outdated FTTN technology. Similarly, it took service-based competitors over ten years to obtain effective access to the FTTN facilities of the Incumbents and wholesale rates for FTTN are still not finalized.

272. Moreover, despite the fact that there is no prospect of a reasonably efficient competitor being able to duplicate the mobile wireless infrastructure of the National MNOs, service-based competitors have no mandated wholesale access to the essential facilities of the National MNOs that would allow them to operate MVNOs and make a positive impact on Canada's sky-high prices for mobile wireless services.[200]

273. Service-based competitors must spend years and millions of dollars in legal, regulatory, and expert fees arguing before the Commission for effective access to the essential facilities of the Incumbents, all while the Incumbents enjoy multi-year head starts selling new retail services that can only be provided via the essential facilities of the Incumbents.

274. If the dominant positions of the Incumbents are ever to be constrained, and if sustainable competition is to be introduced into Canada's telecommunications markets something needs to change.

10.3.2 Prompt access to essential facilities, including all access facilities

275. Service-based competitors can no longer spend years tied up in regulatory proceedings. Therefore, as set out more fully in Appendix 8, CNOC is proposing that a new section 23.2 be added to the *Telecommunications Act* that would provide prompt and effective access for service-based competitors to the essential facilities of any class of telecommunications service provider

[200] TRP 2015-177 at para 125.

that the Commission determines should be required to provide wholesale access to essential facilities.

276. CNOC's proposed section 23.1 would take the test used by the Commission to determine whether a facility, function, or service is essential and insert it directly into the *Telecommunications Act*.[201] In applying the test, the Commission would also consider any other relevant principles of competition law and policy into account. Pursuant to subsection 32.1(3), these principles "principles of competition law and policy" means the evolving jurisprudence and policy applied in Canada for the purpose of preventing or remedying anti-competitive conduct that has the effect of preventing or lessening competition substantially in a relevant market. CNOC has provided in subsection 2(1) that the definition of "essential facilities" is set out in section 23.1 and includes any ancillary services.

277. Crucially, "access facilities", meaning those facilities that connect a telecommunications network to a person's premises or mobile wireless device, would automatically be designated as essential facilities. CNOC notes that in proposing this automatic designation for access facilities, it is not aware of a single instance where the Commission has found that an access facility was not an essential facility when required to make such a determination during a regulatory proceeding. CNOC has provided a comprehensive definition of "access facilities" as they relate to both fixed wireline and mobile wireless facilities in proposed subsection 2(1).

278. In situations where a telecommunications service provider launches a retail telecommunications service whose existence is dependent on the availability of one or more essential services, that TSP would be required, at the same time as the launch, to file a proposed tariff and all other technical information and commercially relevant information with the Commission allowing service-based competitors to offer a retail service, which CNOC has defined in its proposed legislation as a "wholesale competition service", using the same essential facilities.

[201] In particular, the test used by the Commission in Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service*, 3 March 2008 at paras 32-37 and TRP 2010-632 at paras 23-27.

279. CNOC has defined a "wholesale competition service" in subsection 2(1) as "a wholesale telecommunications service that includes one or more essential facilities".

280. CNOC has defined a "wholesale telecommunications service" in subsection 2(1) as "a telecommunications service that is provided by a telecommunications service provider to another telecommunications service provider for use by the latter in providing telecommunications service to another person."

281. CNOC has proposed language to require telecommunications service providers to file these tariffs and other relevant information in subsection 23.2(1). At the end of the day, subsection 23.2(1) would still result in head-starts while the Commission reviewed the terms of the tariffs and any disputes were adjudicated, but the length of the head-start would be reduced from years to weeks or months. The impact that this provision will have on reducing head starts is further strengthened by the deterrents CNOC has proposed further below to prevent telecommunications service providers from gaming the system.

10.3.3 Deterrents are required to prevent gaming of the system

282. CNOC has encountered many instances whereby telecommunications service providers file tariffs to comply with decisions of the Commission requiring them to do so, but the terms and conditions contained within the tariffs are so unreasonable that service-based competitors are prevented from effectively using the service. This occurred, for example, in the case of FTTN described above, where the CBB rates proposed by the Incumbents were so absurdly inflated that it took until 2016, when the Commission slashed CBB rates by over 85% in many instances, before service-based competitors were able to effectively provide retail services over Incumbent FTTN facilities.[202] Crucially, the Commission found that these inflated rates stemmed from the Incumbents willfully ignoring the costing methodology established by the Commission.[203]

[202] *Tariff notice applications concerning aggregated wholesale high-speed access services – Revised interim rates,* Telecom Order CRTC 2016-396, 6 October 2016, Appendix 1.
[203] *Id.*at para 22.

283. Incumbent gaming of the system has happened again with proposed Incumbent tariffs for FTTP that are completely unworkable, as set out more fully above and in Appendix 8.

284. In order to prevent telecommunications service providers from issuing tariffs with unworkable terms and conditions, CNOC is proposing a new subsection 23.2(2) that would require that Incumbent tariffs adhere strictly to the current rate methodology (including costing methodology, if applicable) adopted by the Commission and that the wholesale service be designed to deliver a quality of service that is as equivalent as possible to the quality of service levels that the telecommunications service provider provides to its own retail service.

285. CNOC has defined "current rate methodology" in subsection 2(1) as "the methodologies, practices, procedures and any related regulations, rules or decisions adopted by the Commission for developing regulated rates, including the costs on which such rates are based if applicable, for mandated wholesale services or other tariffed services from time-to-time."

286. CNOC has defined "quality of service" in subsection 2(1) as "in relation to a wholesale competition service, the standards applicable to provisioning, including order processing, installation, repair and disconnection".

287. CNOC has also added new subsection 23.2(3), which requires the Commission to act as expeditiously as possible in considering whether to approve these tariffs and any other conditions related to a wholesale competitor service in a further attempt to reduce the risk of unreasonable head-starts.

288. However, this is still not enough because, as indicated above in the case of FTTN, the Incumbents have demonstrated that they are prepared to willfully disobey Commission directives as to the contents of tariffs, and the Commission has been remarkably reluctant to deter this illegal conduct. As such, CNOC is proposing that a failure to file a proposed tariff at the launch of a retail service, or to include in the proposed tariffs rates calculated in accordance with the applicable methodology established by the Commission, or not design the tariffs in a manner that provides as

equivalent as possible quality of service between the wholesale and retail services, be automatically considered an instance of unjust discrimination under the new subsection 27(2.1).

289. Moreover, pursuant to new subsection 23.2(8), in any proceeding in which the failure of a telecommunications service provider to adhere to the requirements in subsections 23.2(1) or 23.2(2) is an issue, the Commission would be required to consider imposing administrative monetary penalties if the telecommunications service provider is found to have failed to adhere to the requirements.

290. In addition, CNOC is proposing that a modification to section 72 such that the Commission have concurrent jurisdiction with the courts to award damages for harm caused by breaches of the *Telecommunications Act*, including the failure to adhere to new subsections 23.2(1) or 23.2(2). This is an important change for smaller competitors as pursuing telecommunications service providers in court for damages is often too cost-prohibitive and lengthy a process, even when competitors have a bona fide case.

10.3.4 Functional or structural separation may be required in some circumstances

291. Despite all of these safeguards against anti-competitive conduct, it is still possible that the market power of the Incumbents may overwhelm attempts to regulate them and that they will find new ways to circumvent the efforts of the Commission, the Government of Canada, and service-based competitors to create sustainable competition in Canadian telecommunications.

292. Therefore, as a final measure, in the event that the Commission decides that the measures in subsections 23.2(1), (2), and (3), are not sufficient to prevent the undue lessening or prevention of competition in the market for a class of retail services for which one or more corresponding wholesale competitor services exist, section 23.4 would empower the Commission to order other remedies, up to and including the functional or structural separation of an entity, which would certainly in practice be an Incumbent.

293. CNOC is not necessarily suggesting at this stage that this power would need to be used, but it is important to clarify that the Commission has the power available should it become necessary. The existence of such a power may well deter telecommunications service providers from attempting to circumvent the proposed measures in subsections 23.2(1), (2), and (3) designed to protect and stimulate competition.

10.3.5 Regular reviews of wholesale competitor services are required

294. In order to ensure that the Commission's requirements for wholesale competition services remains current and reflects changing market conditions, subsection 23.2(5) provides that the Commission review its classifications of classes of wholesale competition services at least once every 5 years. As part of any review of wholesale competition services, the Commission may also, pursuant to subsection 23.2(6), consider whether any class of access or other essential facilities still constitute essential facilities or whether new classes of essential facilities needs to be created and translated into a class of wholesale competitor services. However, pursuant to subsection 23.2(7), existing obligations under subsections 23.2(1), (2) or (3) are not to be affected as a result of any anticipated or ongoing review commenced under subsection 23.2(5).

295. This is an important safeguard for service-based competitors because as the regulatory history of FTTN described above demonstrates, the Commission has previously declined to enforce vital wholesale obligations during regulatory reviews. To date every access facility has been held to be an essential facility, yet because the Commission has erred on the side of caution, mandated access to such facilities has been delayed by many years when new types of access facilities have been deployed. It is therefore now paramount to reverse the presumption and automatically classify new access facilities as essential facilities. At the same time, the framework is sufficiently flexible that if some class of access facilities did become non-essential, the Commission could, in the course of reviewing competitor wholesale services generally, make a corresponding determination and then apply the forbearance test in section 34 of the *Telecommunications Act* to assess what degree of forbearance from regulation may be appropriate.

10.3.6 The Commission will have the ability to create exemptions

296. Subsection 23.2(4) would also allow the Commission to exempt certain classes of telecommunications service providers from having to provide certain classes of wholesale competitor services where doing so will not materially compromise the attainment of the policy objective or compliance with the principles set out in subsections 7.1(a) and (b) in a Canadian Province or Territory.

297. This provision provides necessary flexibility such that for example the Commission could forbear from this requirement where certain classes of providers only make small local deployments of an access facilities such as FTTP or provide service in rural areas via fixed wireless facilities. In such cases, and especially if other access facilities exist there is not much benefit to having the access facilities subject to a mandated wholesale obligation. Another example might be if the Commission only believed that it was necessary to require the National MNOs to provide wholesale MVNO access, but applying such regulation to Regional MNOs is not necessary to achieve the policy objective or compliance with the principles set out in subsections 7.1(a) and (b) in a Canadian Province or Territory.

298. The ability of the Commission to designate certain classes of telecommunications service providers and classes of telecommunication services is provided in additions proposed by CNOC to section 32.

299. Overall, the legislative language proposed by CNOC will go a long way towards reducing heard starts from years to a matter of a few months or less. Firstly, by requiring telecommunications service providers to file tariffs and other technical and commercial simultaneously with the introduction of new retail services that rely upon essential facilities, and secondly by creating significant deterrents to attempts to game the system by only providing tariffs with unworkable terms and conditions. CNOC's new section 23.1 would also be expected to provide access for service-based competitors to the mobile wireless infrastructure of the National MNOs for the very first time and thus further level the playing field.

10.3.7 Expanding section 27

300. CNOC is proposing that section 27 largely be maintained in its current form. There are still numerous issues with competition that threaten the continued survival of service-based competition. However, subsection 27(2) has allowed service-based competitors, and others, to address the most egregious anti-competitive conduct and significant jurisprudence has developed interpreting this provision. Nonetheless, some expansion of this section is required.

301. Most notably, and as discussed further above, CNOC is proposing in new subsection 27(2.1) that a breach of subsection 23.2(1) or (2) constitutes a breach of subsection 27(2). This is necessary to ensure that telecommunications service providers do not merely comply with CNOC's new proposed requirement to ensure timely access to essential facilities in name only, by filing tariffs with unworkable terms and conditions. The filing of unworkable tariffs by telecommunications service providers is unfortunately a persistent issue that service-based competitors must deal with that results in years of unnecessary litigation before the Commission.

10.3.8 Wholesale public good services

302. Aside from wholesale competition services, CNOC is also proposing that the Commission have the authority, in new section 23.3, to order telecommunications service providers to file tariffs for wholesale public good services, where the Commission determines that to do so would be consistent with the telecommunications policy objective and the principles set out in new subsections 7.1(c), (d), (e), or (f). Two additional classes relate to the provision of access to support structures and facilitating interconnection among telecommunications networks. An example of a wholesale public good access may be access to certain 9-1-1 services provided by a telecommunications service provider to a service-based competitor.

303. The Commission would have the power under subsection 23.3(3) to review its classification of a service as a wholesale public good service, and would be required to conduct an analysis of its classifications at least once every five years. However, as per subsection 23.3(4), the Commission would not be able to revoke the classification of a service as a wholesale public

good service if doing so would compromise the attainment of the policy objective or be inconsistent with the principles set out in subsections 7.1(a), (b), (c), (d), (e), (f).

304. CNOC has defined a "wholesale public good service" in subsection 2(1) as follows:

> **wholesale public good service** means a wholesale telecommunications service that is required to further the public interest, including:
> (a) public safety and security;
> (b) making emergency services available to the public;
> (c) facilitating access to telecommunications by persons with disabilities;
> (d) limiting public nuisance through telecommunications;
> (e) providing access to support structures; or
> (f) facilitating interconnection among telecommunications networks.

10.4 Current legislation does not strike the right balance between government's ability to set policy and regulatory independence

305. Question 7.2 in the Terms of Reference ask "[d]oes the legislation strike the right balance between enabling government to set overall policy direction while maintaining regulatory independence in an efficient and effective way?" CNOC believes that the current *Telecommunications Act* does not achieve this objective.

306. Section 8 allows the Governor in Council to issue "directions of general application on broad policy matters with respect to the Canadian telecommunications policy objectives." The result of this power is the current Policy Direction, which was issued to the Commission in 2006.

307. CNOC has several concerns with the current Policy Direction, which unduly favours the interests of the Incumbents, as discussed further below. However, for the purposes of this discussion, CNOC's view is that the power of the Governor in Council to issue policy directions should be entirely rescinded, and thus section 8 repealed in its entirety.[204]

308. Policy directions of the type issued in 2006 serve no useful purpose other than to fetter the discretion of the Commission and its ability to make decisions aimed at advancing Canada's telecommunications policy objectives using the most economically efficient means. If the policy

[204] Repealing section 8 of the *Telecommunications Act* would also require sections 10 11, 13, and 47(b) to be repealed.

articulated by the legislation is sufficiently robust, clear and focused and promotes the achievement of the policy by promoting competition to the greatest extent feasible, there is no reason to add another layer of policy considerations on the Commission, which is an expert body in telecommunications matters. We are of the view that the provisions of sections 7 and 7.1 that we have proposed are sufficiently robust, clear and focused and so there is no need for section 8 to be continued.

309. At the same time, CNOC recognizes that democratically elected governments should have the right to have a say in defining the public interest when it comes to regulatory decisions. However, instead of issuing a blanket policy direction that fetters the Commission's discretion in all matters, it is preferable that governments exercise this right through the variation, rescission, or referral powers set out in section 12 of the *Telecommunications Act*. The crucial distinction is that in the latter case, the government would also be, quite properly, bound by the policy preferences articulated by Parliament in the legislation, instead of amending them on its own, when considering whether to interpret the public interest in a manner that deviates from a Commission determination. The use of the powers set out in section 12 is also a better means of protecting the Commission's independence relative to the policy direction power, since section 12 only applies to specific cases and, has, historically, been used very sparingly.

310. However, the current section 12 powers do suffer from some procedural deficiencies in terms of timelines that are too long, an inability by the Governor in Council to stay Commission decisions pending consideration of petitions, and the absence of a complete process for processing petitions that is sufficiently well-defined. We have addressed these matters in our proposals.

311. Firstly, CNOC is proposing that petitions to the Governor in Council to vary, rescind, or refer back for reconsideration a decision of the Commission be submitted within sixty days of the date of the decision, as opposed to the current ninety days, and that the Governor-in-Council be required to make its decision with nine months of the Commission's decision, as opposed to the current prescribed timeline of one year. Similarly, CNOC is proposing that in new subsection 12(10), the time available for the Governor in Council to rescind or vary a decision that the

Commission has reviewed (or failed to review) within a specified period of time after a referral back from the Governor in Council be shortened from ninety days to forty-five days.

312. The purpose behind these proposed amendments is to reduce the amount of regulatory uncertainty. Ninety days is a very long time for a business to wait to see if an interested party may challenge a regulatory decision of the Commission via a petition to the Governor in Council and one year is even longer for a business to wait for the Governor in Council to issue its decision or, in some cases, do nothing. CNOC notes that the timelines it is proposing are actually significantly longer than the timelines for the Governor in Council to exercise its refer back and set aside powers under the *Broadcasting Act* and thus are well within the capabilities of the Governor in Council.[205]

313. In addition, CNOC is proposing new subsections 12(5) through12(7) be added to the *Telecommunications Act* to clarify the process for petitions to the Governor in Council.

314. A serious issue that exists now is that there is no clear process once a petition is made to the Governor in Council that guards the procedural rights of interested parties. For example, the right of a petitioning party to reply is not guaranteed. CNOC's new language would clarify the procedural rights of parties by making it clear not only that that interested parties can make submissions in response to petitions, within thirty days of notice of the petition being published in the *Canada Gazette*, but that the person filing the petition may file a reply within ten days of the deadline for submissions. The Minister responsible for the *Telecommunications Act* would be required to publish notice of the petition in the *Canada Gazette* within fifteen days of receiving it, and the notice would need to specify whether or not a stay of the Commission's decision was requested in the petition and where parties may obtain copies of the petition and submissions made in response to the petition.

315. CNOC also proposes to clarify in new subsection 12(6) that the Governor in Council has the power to stay decisions of the Commission that are subject to a petition to the Governor in Council and establish timelines for submissions and replies to be made in relation to requests for a stay. Currently, there is no process for this.

[205] *Broadcasting Act* at s 28(1).

316. As CNOC is proposing transferring most of the Minister of Industry's powers under the *Radiocommunication Act* to the Commission, as set out more fully below, CNOC has also provided within the *Telecommunications Act* that the Governor in Council's variation, rescission, and referral power also applies to decisions made by the Commission under the *Radiocommunication Act*.

317. Overall, CNOC urges the Panel to recommend that the power for governments of the day to issue policy directions be rescinded and that governments should show deference to the policy expertise of the Commission. Under CNOC's proposal the government of the day would still have the ability to articulate the public interest through its power to vary, rescind, and order the Commission to reconsider its decisions. However, this power would be constrained by the statutory policy articulated in the statute itself. Finally, the current process is opaque and lacks procedural fairness, and thus CNOC has proposed language to clarify the how the Governor in Council can exercise these powers.

10.5 The federal government's jurisdiction over property needed for the deployment of telecommunications facilities needs to be clarified

318. Question 1.2 in the Terms of Reference asks "[g]iven the importance of passive infrastructure for network deployment and the expected growth of 5G wireless, are the right provisions in place for governance of these assets?" The current provisions in the *Telecommunications Act* are deficient when it comes to ensuring access to passive infrastructure for network deployment.

319. In *Barrie Public Utilities*[206], the Supreme Court of Canada, on the basis of statutory interpretation held that subsection 43(5) did not give the Commission jurisdiction over the power poles of provincially regulated electric power companies. [207]As a result, the Commission was unable to make an order setting the terms and conditions on which telecommunications service

[206] *Barrie Public Utilities v. Canadian Cable Television Assn.*, [2003] 1 S.C.R. 476.
[207] *Id.* at para 2.

providers were able to access the power poles for the purpose of deploying telecommunications infrastructure.

320. The outcome of the *Barrie Public Utilities* case continues to hinder the efficient deployment of telecommunications infrastructure as provincially regulated electric power companies are able to deny access to their power poles on reasonable terms and conditions to telecommunications service providers and the Commission has no jurisdiction to intervene.

321. In order to overrule *Barrie Public Utilities*, CNOC is proposing new subsections 43(5), (6), (7), and (8). Collectively, these subsections will permit the Commission to order the terms and conditions by which a telecommunications service provider, or a distribution undertaking, can access property, including the power poles of provincially regulated electric power companies, for the purposes of installing, maintaining, repairing, or operating telecommunications facilities.

322. New subsection 43(5) would allow the Commission to establish principles of general application in relation to access to public property such that telecommunications service providers, distribution undertakings, and public authorities understand the framework the Commission will use to establish whether access should be granted and what factors it will consider in establishing terms and conditions.

323. New subsection 43(6) would allow the Commission to order, where there is a dispute, the terms and conditions by which telecommunications service providers and distribution undertakings may access support structures or other property necessary for the installation, maintenance, repair, or operation of telecommunications facilities, regardless of whether that property is publicly or privately owned. The Commission would be required to take into account the views of all parties to the dispute. This provision is necessary to overrule *Barrie Public Utilities* and to grant the Commission the necessary power to ensure that the next generation telecommunications infrastructure that Canada needs can actually get built.

324. However, in the case of property that is subject to regulation by a provincial regulatory authority, CNOC proposes in subsection 43(7), that the Commission be required to consult with

the relevant provincial regulatory authority before making any order under subsection 43(6). This requirement is designed to ensure that the Commission has all the relevant facts, including those that may only be known to the provincial regulatory authority, before making any decision.

325. CNOC is largely in accordance with the language used in the 2007 Model Act with regard to subsections 43(2), (3) and (4) that clarify the reasons for access by telecommunications service provider or distribution undertaking of public property and clarification of the application of the provisions to public property generally from the 2007 Model Act have also been adopted. New proposed subsections 43(5), (6), and (7) also conform to the text set out in the 2007 Model Act and the recommendations of the 2006 TPRP Report.

326. However, CNOC also believes that a new subsection 43(8) is required to clarify that the Commission should not use its power under these new subsections in a manner that derogates from its duty of requiring a telecommunications service provider to issue a tariff and provide all other necessary technical and commercial information required for access to the provider's support structures. This is necessary as many support structures are actually owned by telecommunications service providers and their refusal to grant access to these support structures on reasonable terms and conditions, reluctance to process access requests promptly and provide clear criteria regarding when and where spare capacity exists hinders the ability of competitors to deploy their own infrastructure where it makes sense to do so. Where the Commission determines that access should be provided to these support structures, it should require tariffs and all other necessary information to be disclosed instead of requiring access-seeking telecommunications service providers to file applications with the Commission for access on a case by case basis.

327. CNOC also agrees with the 2007 Model Act that section 44 should be expanded so as to allow persons that own or control support structures and are not public authorities or municipalities to apply to the Commission for orders requiring telecommunications service providers to alter their construction plans or prohibit construction or other activities. This expansion of the scope of section 44 recognizes that it is not just municipalities or other public authorities that may have an interest in seeking relief from the Commission relating to the activities or plans of telecommunications service providers on their property.

328. CNOC has also proposed a new definition in subsection 2(1) to clarify what is meant by the term "support structures" as current this term is undefined, but it shall become increasingly important for all parties to be operating from a common definition as access to a variety of support structures becomes vital for 5G deployment. As such, CNOC is proposing in subsection 2(1) that "**support structures** includes anchors, antennas, conduit, manholes, poles, strands and towers". CNOC notes that the use of "includes" indicates that the list is not closed, and that other structures could be determined by the Commission to qualify as support structures.

329. However, while CNOC has proposed language to clarify and expand the Commission's ability to order access to property for the purpose of installing, maintaining, repairing, or operating telecommunications facilities, in *Barrie Public Utilities*, the Supreme Court of Canada did not address the constitutional issue of the extent of the federal government's jurisdiction over provincially regulated passive infrastructure, such as hydro poles. Therefore, CNOC proposes that, to the extent that there is any doubt concerning the Commission's constitutional jurisdiction to make such orders, the Panel recommend to the federal government that a reference be directed to the Supreme Court of Canada to clarify the extent of this jurisdiction. A determination of whether such a reference is required, and if so, its determination, are urgently needed as the deployment of 5G networks will require substantial amounts of infrastructure to be placed on passive provincially regulated infrastructure, such as power poles, in order to be effective.

10.6 Stricter rules for inside wire access are required

330. A significant problem that competitors occasionally encounter is that the owners of inside wire refuse access to the inside wire on reasonable terms and conditions, which can effectively give the owner a monopoly on the provision of telecommunications services to end-users connected to that inside wire. This is a significant issue in multi-dwelling units where a single telecommunications service provider will often own all the inside wire in a building and prevent other telecommunications service providers from connecting to the inside wire on reasonable terms and conditions.

331. CNOC has proposed new section 43.1 to clarify that the owner of inside wire must provide access to subscribers, broadcasting undertakings, and telecommunications service providers on reasonable terms and conditions and that the Commission may determine these terms and conditions if necessary. CNOC has also clarified that telecommunications service providers may not remove inside wire if it is being used in accordance with subsection 43(1). A comprehensive definition of inside wire is also provided in this proposed section

10.7 Strict data walls are required to prevent anti-competitive conduct

332. As noted in section 4.4 above, a significant barrier to effective competition in Canada is the lack of sufficient data walls between the retail and wholesale arms of the Incumbents. Moreover, Article 18.6 of the USMCA requires that parties to the agreement take measures to ensure that telecommunications service providers do not use "information obtained from competitors with anti-competitive results".[208]

333. CNOC submits that the current *Telecommunications Act* does not adequately protect service-based competitors from the ability of classes of telecommunications service providers to abuse their position as wholesale suppliers whereby they can gain insight into almost all the details of a service-based competitor's business. Moreover, there are no provisions in the *Telecommunications Act* that specifically address the requirement in Article 18.6 of the USMCA to prevent the anti-competitive use of information obtained from competitors.

334. Therefore, CNOC is proposing new subsection 24.1, which would require any telecommunications service provider that provides a wholesale service, to create strict data walls between their wholesale and retail arms so as to prevent the anti-competitive use of information obtained from competitors.

[208] United States-Mexico-Canada Agreement, 30 November 2018, Article 18.6.

10.8 Concurrent jurisdiction with the courts

335. CNOC has already discussed its proposed new subsection 72(1) above in relation to the deterrents that CNOC is proposing to avoid gaming of the regulatory system, but more comment is warranted. To recapitulate, in new subsection 72(1), CNOC is proposing that a person who has sustained loss or damage as a result of violations of the *Telecommunications Act* or the *Radiocommunication Act*, or decisions made thereunder, or breach of a contract to provide telecommunications services, or because of a rate charged by a telecommunications service provider, may make a claim for damages to the Commission or the courts.

336. As CNOC explained earlier, this is an important modification, particularly for service-based competitors, which are generally smaller and may lack the resources to pursue the other telecommunications service providers in the courts. The unfortunate reality of the Canadian court system is that obtaining relief is an extremely costly and cumbersome process that can stretch out for years. The barriers to obtaining effective relief in the courts prevents many service-based competitors from pursuing claims for damages against the other telecommunications service providers even when they have valid cases.

337. By granting the Commission concurrent jurisdiction to award damages, telecommunications service providers competitors will have access to a more expeditious and streamlined process to obtain damages, which should act as a deterrent against the kinds of anti-competitive conduct that CNOC describes above.

338. CNOC acknowledges that there is a potential constitutional issue with the ability of the Commission to award damages and therefore, CNOC is also proposing that the Panel recommend to the federal government that a reference be directed to the Supreme Court of Canada on this question.

10.9 Infrastructure deployment in underserved areas must be better coordinated

339. Question 1.1 in the Terms of Reference asks "[a]re the right legislative tools in place to further the objective of affordable high-quality access for all Canadians, including those in rural, remote and Indigenous communities?" For the most part, the answer is yes.

340. Section 46.5 of the *Telecommunications Act* allows the Commission to require telecommunications service providers to contribute to a fund to support continuing access by Canadians to basic telecommunications services. The Commission has recently used this power to create the Broadband Fund, which it will use to provide $750 million over the next five years towards broadband infrastructure deployment in underserved areas.[209]

341. CNOC has proposed a slight modification to subsection 46.5(1) to clarify that the Commission can require contributions to a fund to support continuing access to a class of basic telecommunication services, but that the fund does not necessarily need to support access to all basic telecommunication services. For example, while plain old telephone service may be considered a basic telecommunication service, it would be inappropriate to continue funding this legacy technology instead of focusing on advanced broadband solutions.[210]

342. An amendment to section 32, would provide the Commission with the power to designate the classes of telecommunications services that are basic telecommunications services.

343. While the Broadband Fund is an important step towards closing the digital divide, CNOC is concerned that there is no legislative requirement that the Commission's efforts be coordinated with those of federal, provincial, and local governments to achieve maximum efficiency.[211] As such, CNOC is proposing that the following provision be added to the *Telecommunications Act*:

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209 *Modern telecommunications services – The path forward for Canada's digital economy*, Telecom Regulatory Policy CRTC 2016-496, 21 December 2016, at para 132.

210 In fact, the Commission is phasing out funding for plain old telephone service as per Telecom Regulatory Policy CRTC 2018-213, *Phase-out of the local service subsidy regime*, 26 June 2018 at para 52.

211 CNOC notes that in the case of the Broadband Fund, the Commission has indicated that it will collaborate with all levels of government.

Funding consultation
Subsection 46.5(4) The Commission shall consult annually with the Minister and, where applicable, provincial, territorial and local governments regarding how the funding of continuing access to any class of basic service using the fund can be coordinated and duplication can be avoided among them in the next ensuing year, and shall ensure and direct that moneys from the fund are disbursed in that next ensuing year in a manner that is consistent with any coordinated results of that consultation.

344. This proposed provision will reduce the risk of the Commission and other levels of government duplicating each other's efforts or failing to deploy resources in the most effective manner, for example, by sharing the costs of particularly large or expensive deployments of broadband infrastructure. It will also allow for the sharing of expertise and past experiences in best practices for deploying broadband infrastructure amongst different levels of government.

345. CNOC also notes that while it applauds government funding to deploy broadband infrastructure, it is important that government funding never be used as a means to lessen competition. Some CNOC members, particularly those that operate fixed wireless networks in rural and remote areas, have reported that government grants are sometimes awarded to Incumbents to deploy advanced technologies in these areas, such as FTTP. CNOC supports the deployment of advanced technologies to underserved areas, but, as noted above, when the Incumbents deploy FTTP, there is currently no means for service-based competitors to access that technology. Thus, the unintentional impact of government funding of FTTP in rural and remote areas can be that competitors, some of whom have operated fixed wireless networks in these areas for decades, are foreclosed from competing on the platform that is most attractive to consumers.

346. CNOC's proposed new access requirements for essential facilities described further above would address these problematic instances of government funding being unintentionally used to distort and suppress competition.

10.10 Other minor changes are required to modernize the *Telecommunications Act* and improve the efficiency of regulation

347. CNOC is also proposing a number of more minor changes to the *Telecommunications Act* in order to modernize this legislation and improve the efficiency of regulation.

10.10.1 The Commission should have the power to set technical standards and regulate telecommunications' apparatuses

348. Currently, section 15 grants the Minister the ability to set technical standards related to telecommunications. This power should be transferred to the Commission as it is the expert body with respect to telecommunications and can make its decisions after hearing from all interested parties in a proceeding, if necessary.

349. In Appendix 8, CNOC has proposed specific amendments to section 15 to effect this change.

350. For the same reasons, CNOC believes that the Commission should have the authority to regulate telecommunications apparatuses and is proposing the transfer of most of the Governor in Council's regulation-making power in Part IV.1 of the Act to the Commission. The exception being new subsection 69.5(1), where CNOC proposes that the Governor in Council retains authority to make regulations related to international treaties respecting telecommunications apparatus. Finally, CNOC proposes transferring the Minister's power to seize telecommunication's apparatuses under section 74.1 to the Commission.

10.10.2 There is no need for BITS licences or international submarine cable licences

351. Section 16.1 of the current *Telecommunications Act* requires that TSPs obtain an "international telecommunications service licence" prior to providing international telecommunications services. The Commission refers to these licences as Basic International Telecommunications Services licenses ("BITS licences").

352. In a time when more and more telecommunications are carried over the Internet, and international telecommunications are indistinguishable from domestic telecommunications, the requirement for a TSP to obtain a BITS licence prior to providing international telecommunications service is obsolete regulation that should instead be replaced with a simple requirement to register with the Commission before providing any telecommunications services.

In CNOC's experience, the Commission essentially operates BITS licences like a registration requirement in any event, as they are handed out to TSPs upon completing a basic information form and accompanying affidavit.

353. Removing the requirement for TSPs to obtain BITS licences, and renewals of those licences, and instead replacing it with a simple one-time registration requirement is more efficient regulation that will have no negative impact on the public interest since the Commission already hands out the licences upon being provided with basic business information.

354. Consequently, as set out in Appendix 8, CNOC has proposed amendments to sections 16.1 and 16.2, and removed section 16.3 and 16.4, to transform the requirement for TSPs to obtain BITS licences into a simple registration requirement based on classes of telecommunications services specified by the Commission.

355. For the same reasons, CNOC is suggesting that the licensing requirements to operate or construct international submarine cables be repealed and replaced with a simple registration requirement.

356. Repealing the requirements for BITS licenses and international submarine cable licenses also requires subsections 22(2) and 22(3) to be repealed.

357. CNOC's views on removing the requirements for BITS and international submarine cable licences and replacing them with a simple registration requirement are in accordance with the 2006 TPRP Report and the 2007 Model Act.

358. As proposed in the 2007 Model Act, CNOC is also proposing a new section 19 whereby the Commission would be able to provide, upon application by a telecommunications service provider, a certificate confirming that the service provider is registered with the Commission. This is important as there are times when provincial authorities attempt to regulate telecommunications service providers contrary to the applicable federal jurisdiction. Having the ability to obtain such a certificate could be very helpful in such instances.

10.10.3 The special Acts should be repealed

359. There are currently three special Acts that apply to certain Canadian carriers: the *Bell Canada Act*[212], the *Telesat Canada Reorganization and Divestiture Act*[213], and the *Teleglobe Canada Reorganization and Divestiture Act*[214].

360. All three special Acts have outlived their purpose and should be repealed and the three Canadian carriers in question, Bell Canada, Telesat, and Teleglobe should only be subject to the ordinary corporate laws of Canada. As part of CNOC's efforts to level the playing field between Incumbents and service-based competitors, there is no basis for any particular corporation to receive special treatment in legislation.

361. Assuming that all three special Acts are repealed, section 6 of the *Telecommunications Act*, as well as the definition of "special Act", both become redundant and should also be repealed. The term "special Act" should also be struck wherever it appears in the *Telecommunications Act* and CNOC has done so throughout Appendix 8.

10.10.4 Limitations of liability

362. Section 31 of the *Telecommunications Act* currently provides that no limitation of a Canadian carrier's liability in respect of a telecommunications service is effective unless it has been authorized or prescribed by the Commission.

363. CNOC agrees with the 2007 Model Act that this provision is too restrictive and that some limitations of liability may be needed. However, the Commission should still have the clear authority to intervene in case parties attempt to abuse limitations of liability provisions. An example of where intervention may be necessary is in instances where telecommunications service providers seek to include strict limitations of liability provisions in their agreements or enforce

212 *Bell Canada Act*, S.C. 1987, c. 19.
213 *Telesat Canada Reorganization and Divestiture Act*, S.C. 1991, c. 52.
214 *Teleglobe Canada Reorganization and Divestiture Act*, S.C. 1987, c. 12.

such provisions with service-based competitors in order to shield themselves from legal liability when they fail to adhere to required quality of service standards, or when they engage in other anti-competitive conduct.

10.10.5 Section 33 should be repealed

364. Section 33 of the current *Telecommunications Act* relates to rate base / rate of return regulation of the ILECs. CNOC concurs with the 2007 Model Act that this antiquated form of regulation is no longer used and therefore section 33 may be repealed in its entirety.

10.10.6 Section 35 should be repealed

365. Section 35 has never been applied by the Commission and was designed for the era of rate base / rate of return regulation of the ILECs. It is now dated and can be repealed in its entirety.

10.10.7 Delegation of administrative powers

366. As a practical matter, the Commission often delegates some of its administrative powers, such as extending the deadlines for filing documents or requesting information from parties subject to the jurisdiction of the *Telecommunications Act*, to staff. Although, the Commission rarely engages in taxation of costs awards these days, that possibility still exists and has traditionally been performed by Commission counsel. However, the legal authority for the Commission to delegate these powers is unclear.

367. Therefore, CNOC has proposed the following new subsections, which relate to different administrative powers of the Commission, to clarify its ability to delegate its administrative powers: subsection 37(4), subsection 50(2), subsection 56(3). Subsection 69.3(2) which already provides for delegated authority with regards to the regulation of telecommunications apparatus is also proposed to be amended to be consisted with the other delegation provisions.

10.10.8 Permitting the Commissioner of Competition to disclose information

368. The *Telecommunications Act* currently has provisions permitting the disclosure of information by the Commission to the Commissioner of Competition, but no provisions permitting disclosure of information the other way, from the Commissioner of Competition to the Commission.

369. As set out more fully in Appendix 8, CNOC has proposed new section 39.1 to permit the Commissioner of Competition to disclose information that it becomes aware of and that it believes is relevant to the Commission's activities under both the *Telecommunications Act* and the *Radiocommunication Act*.

370. CNOC has also proposed new subsection 39.1(3) to clarify who is prohibited from disclosing any information provided by the Commissioner of Competition as a safeguard against any inappropriate disclosure.

10.10.9 Verifying the Commission's power to issue a stay

371. Currently, the Commission's power to issue a stay of one of its decisions when an application for leave to appeal the decision is taken to the Federal Court of Appeal or a petition to review and vary, refer back or rescind the decision is brought to the Governor in Council is unclear. CNOC is therefore proposing that the plenary authority of the Commission to stay its own decisions be confirmed through the new subsection 62(2).

10.10.10 Streamlining the process for appeals to the Federal Court of Appeal

372. CNOC is proposing a new subsection 64(7) to streamline the process for appeals to the Federal Court of Appeal. This new subsection would allow for service of an application for leave to appeal and any other materials in the leave application to be affected by the same means as the service of any document that was or could have been served on the interested parties in the original proceeding. Essentially, when seeking leave to appeal, this would permit the leave materials to be

served by email, which is how almost all service is conducted in proceedings before the Commission.

373. As CNOC has experienced, this change is necessary as proceedings before the Commission may have large numbers of individual and other interveners, particularly if the matter gets substantial media coverage. If a party wishes to seek leave to appeal to the Federal Court of Appeal, each one of these thousands of interveners would need to be served with the leave materials using the archaic rules of service under the *Federal Court Rules*, meaning thousands of copies of documents would need to be mailed across the country. This is a redundant and costly exercise since everyone who participates in Commission proceedings now does so by email and so their email address is readily available for service.

374. The burden imposed by the rules of service in the *Federal Court Rules* are a very real deterrent to parties seeking leave to appeal in proceedings with a significant number of interveners, particularly for smaller telecommunications service providers with fewer resources to devote towards legal proceedings.

10.10.11 New saving provision

375. CNOC is proposing a new saving provision, subsection 66(5), to clarify that subsections 66(2)-(4) apply for all purposes of the *Telecommunications Act* and the *Radiocommunication Act*.

376. This is merely a clarification that the rules of evidence respecting Ministerial or Commission documents, copies of documents appearing to be certified as a true by the secretary of the Commission, and certificates signed by the secretary to the Commission and bearing the Commission's seal, apply for all purposes of the *Telecommunications Act* and the *Radiocommunication Act*. This language is already present in subsection 66(1) respecting business documents (minus the references to the *Radiocommunication Act*, which we are proposing to add there as well), but is inexplicably absent in subsections 66(2) through (4).

10.10.12 Modifying certain regulation making powers

377. CNOC is proposing changes to subsection 67(1), which enables the Commission to make regulations in certain areas, to reflect other changes proposed to the *Telecommunications Act*.

378. In subsection 67(1)(a), CNOC is replacing "Canadian carriers" with "telecommunications service providers".

379. CNOC is proposing that subsections 67(1)(b.1) and 67(1)(b.2) be struck as CNOC has proposed earlier that the requirements for international telecommunications service licences be rescinded.

380. CNOC is proposing that a new subsection 67(1)(d) be added to clarify that the Commission may make regulations to pursue the principles in new proposed subsections 7.1(c) and (d). However, note that CNOC is not proposing that the Commission be permitted to make regulations to pursue the principles in subsections 7.1(e) and 7.1(f), which relate to privacy and public nuisance, respectively. This is because these matters have already been adequately addressed through the legislative provisions relating to *Personal Information Protection and Electronic Documents Act*,[215] as well as the Do Not Call List and the Voter Registry, respectively.

381. In new subsection 67(1)(e), CNOC is clarifying that the Commission may make regulations relating to technical requirements established by or pursuant to the *Telecommunications Act* or the *Radiocommunication Act*, including in the areas of network interconnection and interoperability as well as the portability of telephone numbers between telecommunications service providers.

382. As there are sometimes costs associated with regulatory requirements like maintaining registries to facilitate number portability, CNOC has clarified that the Commission may make regulations for the recovery of costs from telecommunications service providers of implementing measures adopted under paragraphs (d) and (e). With respect to new subsections 67(1)(e) and (f), CNOC is in accordance with the language used in the 2007 Model Act.

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[215] SC 2000, c 5 ["PIPEDA"].

383. Finally, in subsection 67(1)(g), CNOC removed any reference to the special Acts, for the reasons noted above.

10.10.13 Review of rules of practice and procedure

384. CNOC agrees with the 2007 Model Act and the 2006 TPRP Report that in order to ensure the Commission is following best practices, the Commission should be required to review its rules of practice and procedure at least once every five years and update them when new practices and procedures are adopted. CNOC has proposed new subsection 67(4) to provide for this.

10.10.14 Granting the Commission powers under the *Radiocommunication Act*

385. As set out more fully below, CNOC is advocating that the Panel recommend that most of the Minister's powers over the regulation and management of spectrum under the *Radiocommunication Act* be transferred to the Commission.

386. In order to make this transfer of power effective, the Commission's administrative powers in Part IV, and its investigation and enforcement powers in Part V of the *Telecommunications Act*, need to be expanded to include matters that may come before the Commission under the *Radiocommunication Act*. Consequently, as set out more fully in Appendix 8, from subsection 48(1) to subsection 70(2), CNOC has inserted references to the *Radiocommunication Act*, where appropriate so as to expand these powers.

10.10.15 In camera proceedings

387. In section 54 and subsection 70(5), CNOC has proposed language to clarify that in camera proceedings may not necessarily be an actual public hearing before the Commission. Proceedings is a more general term and could cover proceedings that only involve written submissions, for example.

10.10.16 Clarifying language respecting undertakings

388. CNOC is proposing new language in subsection 72.006(3) to clarify the process by which a person may enter into an undertaking so as to avoid a notice of violation being served on them. CNOC's proposed language would clarify that the person must enter into an undertaking before a notice of violation is served on them, not after the fact. CNOC submits that this is already the clear intent of the current language in subsection 72.006(3), and is just making it explicit and harmonizing the language with current subsection 72.006(4).

10.10.17 Transitional and coming into force provisions

389. With the exception of section 76, the provisions in Part VI and VII to facilitate the coming into force of the current *Telecommunications Act* are now obsolete and can be repealed in their entirety.

390. CNOC is proposing a revised section 76 which is still required to address agreements entered into, and transmission lines deployed, by Canadian carriers, prior to them being regulated by Parliament. However, CNOC is proposing to expand subsection 76(1) such that it also applies to telecommunications service providers and expand subsection 76(2) such that it also applies to telecommunications service providers and distribution undertakings. This will facilitate the transition from the types of entities that will be regulated in section 29 and subsection 43(3) should our proposed amendments are adopted.

391. CNOC is proposing to remove the references to section 31 in subsection 76(1) because whereas under the current *Telecommunications Act* section 31 is a prohibition on limitations of liability, under CNOC's revised *Telecommunications Act* section 31 is a permissive provision that permits the Commission to regulate limitations of liability if it chooses to do so.

10.10.18 Replacing “intelligence” with “information”

392. In current subsection 2(1) there are references to “intelligence” in various definitions. This is an outdated definition. We propose to replace it throughout the *Telecommunications Act* with “information”.

10.11 Many provisions of the current *Telecommunications Act* are effective and should be largely maintained in their current form

393. While CNOC is proposing substantial changes to many parts of the current *Telecommunications Act*, as well as entirely new provisions in some instances, it also acknowledges that many sections of the current *Telecommunications Act* are effective and should be largely maintained in their current form.

10.11.1 Section 24

394. CNOC is not proposing substantial changes to section 24 of the *Telecommunications Act* other than to clarify some of the areas in which the Commission may impose conditions on telecommunications service providers, which correspond to the principles set out in subsections 7.1(c), (d) and (e), and the ability to impose terms between telecommunications service providers and end-users, (which enables the Commission to require telecommunications service providers to adhere to various consumer codes it articulates).

395. Section 24 is vital to the ability of the Commission to regulate telecommunications service providers in evolving circumstances that may not be fully foreseen at the present moment and without it the Commission’s powers would be severely curtailed.

396. The Commission’s forbearance power under section 34 would still be available to be used in appropriate circumstances, although CNOC notes that it would be rare for the Commission to forbear from the exercise of this power. In fact, the current section 24.1 (which CNOC is proposing to blend with the existing section 24) was enacted to allow the Commission to order non-Canadian carriers providing telecommunications services to obtain various conditions, such as those relating to privacy, accessibility and emergency services.

10.11.2 Section 25

397. CNOC is not proposing substantial changes to section 25 of the *Telecommunications Act*. Indeed, this provision is one of the bedrocks of competition in that it requires those telecommunications service providers that are required to file tariffs to adhere to those tariffs. Removing this provision would allow telecommunications service providers to deviate from the rates set out in their tariffs in ways that are not approved by the Commission, thus creating opportunities for anti-competitive conduct.

398. As explained further below, CNOC is proposing retaining the Commission's current forbearance powers under section 34, so the Commission will be able to forbear from requiring telecommunications service providers to file tariffs or adhere to previously filed tariffs where it is proper to do so. In cases where the Commission has forborne from the exercise of this powers with respect to Canadian carriers, it would be expected that other telecommunications service providers offering the same classes of services would also be forborne.

399. CNOC is also proposing new subsection 25(4)(c), which is a necessary consequential amendment to the application of section 25 to telecommunications service providers. Subsection 25(4)(c) creates time for the Commission to forbear from requiring certain classes of telecommunications service providers to file tariffs. Without this provision, service-based TSPs would be immediately in breach of new section 25 once it comes into force. CNOC expects that the Commission would choose to forbear from requiring most service-based competitors from adhering to section 25, since they typically provide the types of services for which Canadian carriers have been forborne in this regard as well.

10.11.3 Section 29

400. CNOC is not proposing substantial changes to section 29 of the *Telecommunications Act* regarding interconnection agreements. Removing this provision would allow telecommunications service providers to deviate from their interconnection obligations, thus opening up the prospect of anti-competitive conduct.

401. As indicated above, CNOC is proposing retaining the Commission's current forbearance powers under section 34, so the Commission will be able to forbear from requiring telecommunications service providers to file such agreements where it is proper to do so. In cases where the Commission has forborne from the exercise of this powers with respect to Canadian carriers, it would be expected that other telecommunications service providers offering the same classes of services would also be forborne.

10.11.4 Section 34

402. While CNOC has disagreed, from time to time, with the Commission's determinations of the facts in certain forbearance decisions, section 34 has generally been an effective safeguard against the Commission forbearing too early from regulating a telecommunications service.

403. CNOC believes that section 34 should be maintained and that the Commission should only forbear from regulation where it is finds as a fact that to do so would be consistent with the telecommunications policy objective and there is sufficient competition such that the interests of end-users are protected. Given the precarious state of competition in Canada and the continued dominance of the former monopolies, there is no justification to permit the Commission to forbear in any other circumstances.

10.11.5 Section 36

404. Question 3.1 of the Terms of Reference asks: "Are current legislative provisions well-positioned to protect net neutrality principles in the future?" CNOC submits that section 36 of the current *Telecommunications Act* is sufficient to protect net neutrality principles both now, and in the future, and does not require any modification, other than to have it apply to "telecommunications service providers" and not just "Canadian carriers".

405. By making that minor change, section 36 will prevent all TSPs, absent an order from the Commission, from interfering with the content, or influence the meaning or purpose, of any telecommunications carried by them for the public. It is important that the Commission have the flexibility to permit TSPs to deviate from strict adherence to net neutrality in order that TSPs may

take measures related to national security, public safety, and the integrity of their networks, for example.

10.11.6 Other provisions

406. The Panel will notice throughout Appendix 8 that CNOC is proposing only very minor wording changes to a number of other provisions throughout the current *Telecommunications Act*. Generally these minor wording changes are switching "Canadian carrier" to "telecommunications service provider", the rationale for which CNOC explained further above.

407. Occasionally, CNOC has proposed minor grammatical updates that may not be discussed above.

408. For current provisions of the *Telecommunications Act* that are not addressed at all in Appendix 8, CNOC is not suggesting any wording changes. For these other provisions, the current legislative language works well and CNOC is not aware of any significant issues, from any side of the industry, that have arisen with this language.

10.12 Telecommunications and broadcasting are distinct matters

408. CNOC has become aware of certain alarming proposals that would seek to remove the traditional distinctions between telecommunications and broadcasting and undermine the common carriage principles of telecommunications. In particular, CNOC is concerned by a proposal that would seek to impose a tax on Internet service providers ("ISP tax") to help fund the development of Canadian content.[216] CNOC also deplores any suggestion of the mandated blocking of access to content on the Internet that has allegedly been pirated.

[216] Michael Geist, "Making Sense of the Canadian Digital Tax Debate, Part 3: New Taxes or Fees on Internet Access", 26 October 2018, http://www.michaelgeist.ca/2018/10/making-sense-of-the-canadian-digital-tax-debate-part-3-new-taxes-or-fees-on-internet-access/.

409. Both of these proposals would require telecommunications common carriers to be involved in supporting cultural policy objectives that have absolutely nothing to do with their role as common carriers of all content, whether that content is Canadian or foreign.

10.12.1 There is no justification for an ISP tax

410. Certain content producers have proposed that a tax should be imposed on the revenues of ISPs to fund the creation of Canadian content.[217] CNOC strongly objects to any such suggestion.

411. The reality is that telecommunications and broadcasting are completely separate industries and the idea that because ISPs carry Canadian content as part of their traffic, they should consequently be required to fund Canadian content production is illogical. By that reasoning, because the railroads carry steel products, they should be required to fund the production of Canadian steel, or perhaps pay a tax to support the oil sands. Both the railroads and telecommunications service providers are common carriers and should not be required to support the various industries whose content they carry.

412. Moreover, ISPs already pay a tax on their revenues to contribute to the build-out of broadband networks to underserved areas, which, in turn, opens new markets for Canadian content. Using the logic of those parties that are suggesting an ISP tax, the Canadian content and creative industries should also be required to pay a tax on their revenues to fund the build-out of these networks, as it is broadband networks that are allowing millions of Canadians to access their content. Of course, no one from the Canadian broadcasting industry has suggested that they would be willing to contribute to the construction of these networks to underserved areas.

413. ISPs are common carriers and Canadian content is only one type of traffic that they carry. In fact, Professor Michael Geist has ably demonstrated that while streaming content is certainly a popular use of the Internet in Canada, it is:

> not nearly as popular as communicating through messaging and social networks, electronic commerce, Internet banking, or searching for news, weather, and other information. From the integral role of the Internet in our education system to the

[217] *Ibid.*

> reliance on the Internet for health information (and increasingly tele-medicine) to the massive use of the Internet for business-to-business communications, Internet use is about far more than cultural consumption.[218]

414. However, regardless of the proportion of Internet traffic carried by ISPs that is made up of streaming content, any suggestions of an ISP tax must be rejected because of the adverse impact that such a tax would have on the affordability of Internet access in Canada. Any ISP tax will inevitably need to be passed onto end-users, regardless of whether the ISP is an Incumbent or a competitor, thus resulting in increased costs for end-users.

415. The Government of Canada has made it clear that the affordability of Internet services is a priority for it:

> Low-income Canadians spend a higher share of their household income on cellphone and Internet bills than high-income Canadians. So it's not surprising that only 6 out of 10 low-income households in Canada have Internet service. By contrast, virtually all households that earn $125,000 annually have it. This digital divide is unacceptable. It represents a real barrier to continued prosperity for Canadians. Every child who's unable to do school assignments or download music online is one less consumer of your products and services. Each one of these children is potentially one less software developer for your industry—and one less job creator for our country. We need every Canadian to be innovation ready—ready to spot opportunities, imagine possibilities, discover new ideas, start new businesses and create new jobs. *All* Canadians need access to high-speed Internet, regardless of their income level or postal code. Until we bridge this digital divide, Canadians will not reach their full potential.[219]

416. CNOC submits that, in any event, consideration of an ISP tax by the Panel has been foreclosed by the Terms of Reference to the Panel from the Government of Canada, which state:

> Traditional regulatory mechanisms by which creation and access to Canadian content have been achieved may not be as effective in the digital environment where usual practices linked to scheduled audio or television programming or story-telling may no longer apply. Therefore, there is an opportunity to consider whether

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[218] *Ibid.*

[219] The Honourable Navdeep Bains, Minister of Innovation, Science, and Economic Development, "2017 Canadian Telecom Summit", 5 June 2017, https://www.canada.ca/en/innovation-science-economic-development/news/2017/06/2017_canadian_telecomsummit.html.

> there are new ways that Canadian content creation, distribution, and discovery in both official languages can be supported in this new digital communications environment. However, the Government is not interested in an approach that increases the cost of services to Canadians.[220] [Emphasis added]

417. As an ISP tax would inevitably increase the cost of telecommunications services to Canadians, the Terms of Reference foreclose consideration of any such tax. To the extent that the government wishes to provide more direct support to Canadian content production, it should do so out of general tax revenues.

418. That being said, CNOC has no objection, and would support for reasons of competitive equity, a requirement that foreign streaming services such as Netflix that operate in Canada be required to collect and remit HST. As noted above, many of CNOC's members are also broadcasting distribution undertakings through their IPTV offerings, and more and more are launching IPTV services each year. CNOC's members must collect and remit HST and foreign services that carry on business in Canada should do the same.

419. Requiring these foreign content services to collect and remit HST does not increase the costs of these services to Canadians, as technically under existing tax laws Canadian consumers should be calculating and remitting these amounts themselves, which of course is never done or enforced[221]. The change proposed by CNOC would merely require these foreign content services to do the collection and remittance themselves.

10.12.2 There is no justification for mandated website blocking

420. Aside from the issue of the ISP tax, CNOC also urges the Panel to reject another proposal that has become popular amongst certain Canadian content producers and broadcasters: the mandated blocking of websites that host pirated content.

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[220] Innovation, Science, and Economic Development Canada, "Terms of Reference", https://www.ic.gc.ca/eic/site/110.nsf/eng/00001.html#toc-10

[221] Sophie, Nicholls Jones, Chartered Professional Accountants Canada, "It's up to you, the Canadian consumer, to pay sales tax on digital services", September 13, 2018, https://www.cpacanada.ca/en/news/canada/2018-09-13-tax-on-digital-services.

421. The organization leading the charge on this proposal is known as FairPlay Canada, which is a coalition of various Canadian content producers, Incumbents that have integrated telecommunications and broadcasting operations. In January 2018 FairPlay Canada filed a Part 1 Application with the Commission that would have required ISPs to block access to websites that were determined to be hosting pirated content.[222]

422. The Commission declined to consider FairPlay Canada's Application, because it determined, CNOC believes correctly, that it lacked the jurisdiction to implement FairPlay Canada's proposal as it would have conflicted with the exhaustive regime created by Parliament in the *Copyright Act* for remedies for copyright infringement.[223] However, based on comments made by representatives of FairPlay Canada at the 2018 IIC Conference, it appears likely that FairPlay Canada will attempt to achieve through legislative reform what it could not achieve before the Commission.

423. At the outset, CNOC does not believe that consideration of FairPlay Canada's proposal for mandated website blocking falls within the Terms of Reference given to the Panel. The Terms of Reference do not contemplate amendments to the *Copyright Act*, which is not a communications statute, yet amendments to the *Copyright Act* would be required to implement FairPlay Canada's proposal. As a separate Parliamentary committee is currently considering reform of the *Copyright Act* CNOC submits that FairPlay Canada's proposal is more properly considered by that committee.[224]

424. However aside from whether consideration of the *Copyright Act* is within the scope of the present review, FairPlay Canada's proposal should be rejected on its merits. CNOC is equally concerned as FairPlay Canada about the negative impacts of piracy. Many of CNOC's members have launched, or are considering launching, IPTV operations and these members report that

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222 FairPlay Canada, Application to Disable On-Line Access to Piracy Sites, 29 January 2018, at para 16.

223 Telecom Decision CRTC 2018-384, *Asian Television Network International Limited, on behalf of the FairPlay Coalition – Application to disable online access to piracy websites*, 2 October 2018 at paras 70-73.

224 Parliament of Canada, "Statutory Review of the Copyright Act", https://www.ourcommons.ca/Committees/en/INDU/StudyActivity?studyActivityId=9897131.

piracy has a serious impact on their business plans. However, none support FairPlay Canada's proposal.

425. CNOC has attached as Appendix 8, the intervention it made to the Commission in the proceeding initiated by FairPlay Canada's Application. In that intervention, CNOC explains in detail the many problems with FairPlay Canada's proposal.

426. To summarize, the website blocking regime proposed by FairPlay Canada would require ISPs to spend significant sums on purchasing new equipment and software designed to block websites that are identified as hosting pirated content.[225] There would also be ongoing operational costs for ISPs associated with a website blocking regime.[226]

427. As with an ISP tax, the costs that ISPs incur in establishing and operating a mandatory website blocking regime would necessarily be passed on to end-users. Consequently, due to the government's statement in the Terms of Reference that it is not interested in proposals that will result in higher prices for Internet access for Canadians, and aside from any issues involving the *Copyright Act*, consideration of FairPlay Canada's proposal is outside the scope of the present review.

428. Furthermore, all this expense would be for naught as website blocking is an extraordinarily ineffective remedy. Website blocking is easily circumvented by both end-users seeking to access pirated content and entities that make the pirated content available, including through the use of free VPN technology.[227] CNOC cannot support measures to combat piracy that would require ISPs to invest significant sums but at the same time be wholly ineffective.

429. In addition, it is almost certain that the website blocking regime proposed by FairPlay Canada would result in the inadvertent blocking of legitimate content, which raises serious issues of civil liability for ISPs.[228]

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225 Appendix 7 at part3.0.
226 *Ibid.*
227 *Id.* at section 3.4.
228 *Id*. at para 70.

430. Moreover, the inadvertent blocking of legitimate content as a result of a Commission order would raise constitutional issues. Since the order would emanate from a regulatory authority created by the federal government, namely the Commission, the *Canadian Charter of Rights and Freedoms*[229] ["*Charter*"] would apply to the blocking order. The blocking of legitimate content almost certainly violates subsection 2(b) of the *Charter*, which guarantees freedom of expression, and CNOC is hard-pressed to see how such an order could be justified under section 1 of the *Charter* as being a reasonable limit on freedom of expression.

431. Finally, adopting FairPlay Canada's proposal would be akin to adopting a notice-and-takedown approach whereby, upon receiving notice that content is infringing upon copyright, an ISP or webhosting service must block access to the content. This would contradict and undermine the Government of Canada's recent success in having Canada exempted from any requirement to adopt a notice-and-takedown approach in the USMCA.[230]

432. CNOC is committed to working with industry partners to take effective and fair measures to combat online piracy in Canada in a manner that accords with Canadian law and values. However, the proposal of FairPlay Canada is problematic, both, in terms of effectiveness and legality, and CNOC cannot support such a regime. Consideration of FairPlay Canada's proposal is also outside the scope of the present review due to the necessary involvement of the *Copyright Act*, which is not a communications statute, and the increased costs that it would impose on end-users.

10.13 There is no justification for new tribunals

433. The 2006 TPRP recommended the establishment of a Telecommunications Competition Tribunal ("TCT") that would be responsible for addressing complaints of anti-competitive conduct in telecommunications markets.[231] The 2006 TPRP Report envisioned the TCT only having three

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[229] *Charter of Rights and Freedoms*, Part 1 of the Constitution Act, 1982, Enacted as Schedule B to the Canada Act 1982, 1982, c. 11.

[230] Michael Geist, "Why the USMCA Will Enhance Online Free Speech in Canada", 5 October 2018, http://www.michaelgeist.ca/2018/10/usmcasafeharbour/.

[231] Telecommunications Policy Review Panel Final Report, March 2006, Chapter 4.

members and drawing upon the resources of both the Commission and the Competition Bureau.[232] The 2006 TPRP Report also suggested that the TCT would be a transitional mechanism of no more than five years, as it assumed that there would not be telecommunications markets with significant market power by the end of 2011.[233]

434. CNOC submits that the idea for a TCT is misguided and objects to such a tribunal being created. While CNOC may disagree with the outcome of individual decisions, the Commission has shown itself more than capable of applying competition law principles in its regulation of telecommunications. To create a new tribunal that draws upon the resources of both the Competition Bureau and the Commission would be unduly complicated and duplicative of the efforts of both bodies, where the Commission addresses regulated telecommunications matters and the Competition Bureau is available to address unregulated matters.

435. The 2006 TPRP based its support for a new TCT on the fundamentally incorrect view that there would be no telecommunications markets with significant market power by 2011.[234] As CNOC has explained further above, this view is incorrect, and ignores the realities of the continuing joint dominance of the Incumbents in markets across Canada. The legacy of monopolies in Canada will not naturally disappear, short of outright structural separation of the Incumbents, and it is time that Canada's telecommunications policy reflects this reality.

436. Therefore, CNOC is opposed to any suggestion of a new TCT or similar body being created and, as set out further below, believes that more regulatory authority needs to be centralized within the Commission, such that Canada can have a fully coherent telecommunications policy.

437. The 2006 TPRP Report also recommended the creation of a new telecommunications consumer agency.[235] This recommendation has been superseded through the creation of the Commission for Complaints for Telecom-Television Services ("CCTS").[236] There are still minor

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[232] *Id.*, at Section 4-17.
[233] *Id.*, at Section 4-16.
[234] *Id.*, at Section 4-17.
[235] *Id.*, at Section 4-17.
[236] *Id.*, at Section 6-7.

improvements that can be made to the operations of the CCTS, but these improvements are more appropriately addressed through the periodic regulatory proceedings reviewing the functioning of the CCTS and do not require legislative amendments. For the most part, the CCTS has functioned well in providing redress to consumers. There is no need to replace it now.

11.0 CNOC'S PROPOSED CHANGES TO OTHER PIECES OF CANADA'S TELECOMMUNICATIONS LEGISLATION

438. Aside from the changes that it is proposing to the *Telecommunications Act*, CNOC is proposing amendments to the *Broadcasting Act*, the *Radiocommunication Act*, and the *CRTC Act* in order to further modernize Canada's telecommunications legislation and remove additional barriers to effective competition.

439. Further above, CNOC recommends that the Panel recommend, as an interim measure, that the Governor in Council repeal the current Policy Direction in its entirety and not replace it with a new policy direction. CNOC has also proposed legislative amendments to the *Telecommunications Act* that would remove the ability of the Governor in Council to issue policy directions. However, as an alternative interim measure to compel the Commission to adopt a more even-handed approach between the interests of Incumbents and service-based competitors, CNOC is also proposing language for a new policy direction, more particularly described, with supporting reasoning, in Part 12.0The text of the Revised Policy Direction proposed by CNOC is set out in Appendix 12.

11.1 The *Broadcasting Act*

440. More and more CNOC members are becoming involved in the broadcasting industry through the operation of IPTV platforms. CNOC therefore has an interest in ensuring that the *Broadcasting Act* is modernized and promotes competition in Canada's broadcasting industry.

441. CNOC's proposed changes to the *Broadcasting Act* fall into a few general categories: 1) modernizing and streamlining the *Broadcasting* Act, and especially its objectives in order to make its administration more efficient and effective; 2) placing stronger competitive safeguards in the *Broadcasting Act*; and 3) harmonizing language relating to similar provisions as between the

Broadcasting Act and the *Telecommunications* Act to prevent expensive and time-consuming disputes and appeals that might otherwise arise due to unnecessary differences in drafting.

442. The text of CNOC's proposed changes to the *Broadcasting Act* is attached as Appendix 9.

11.1.1 Modernizing and streamlining the *Broadcasting Act*

443. The *Broadcasting Act* is currently difficult to apply in practice due the lengthy list of policy and regulatory objectives set out in sections 3 and 5. For example, the policy objectives set out in section 3 run to four pages. Section 5 then layers on an additional set of regulatory objectives on the Commission. The net result is that is next to impossible for any Commission decision to be measured objectively against all of these numerous and, potentially conflicting, criteria. In order to improve the coherence, consistency and transparency of regulatory decision-making, we are proposing to reduce the number of policy objectives drastically as follows:

> **Subsection 3(1) [REPEALED AND REPLACED]** It is hereby declared as the broadcasting policy for Canada that the Canadian broadcasting system shall:
>
> (a) be effectively owned and controlled by Canadians;
> (b) safeguard, enrich and strengthen the cultural, political, social and economic fabric of Canada;
> (c) educate, entertain and inform;
> (d) promote the creation, presentation, distribution and discoverability of Canadian programming;
> (e) Promote and rely on competition to the greatest extent possible to pursue the Canadian broadcasting policy;
> (f) reflect aboriginal cultures, as well as the multicultural and multiracial nature of Canada;
> (g) make high quality, accessible and affordable programming available throughout Canada in both English and French languages, that is reflective of both the common and the different conditions and requirements applicable to broadcasts in the two languages;
> (h) make programming accessible to disabled persons;
> (i) be readily adaptable to scientific and technological change; and
> (j) ensure that the Corporation, as the national public broadcaster, performs a leading role in the achievement of the broadcasting objectives in this subsection.

444. Moreover, CNOC proposes to add a new subsection 3(1)(e) that would add as a policy objective that the Commission rely on competition to the greatest extent possible to pursue the

Canadian broadcasting policy, in order to maximize the efficiency of markets for broadcasting services, so long as this is done in a manner that promotes the overall broadcasting policy.

445. Related to this streamlining of the policy objectives, CNOC has added a new definition of "Canadian broadcasting policy" in subsection 2(1) that merely states that the broadcasting policy is declared in subsection 3(1).

446. CNOC has also created a new subsection 3(2) that replaces old subsection 5(2) as part of the streamlining of the policy objectives and that avoids unnecessary duplication between sections 3 and 5. Subsection 3(2) states that the Commission shall regulate and supervise all aspects of the Canadian broadcasting system with a view the implementing the Canadian broadcasting policy.

447. CNOC has repealed subsections 5(1) through (3), which are no longer necessary with the streamlining of section 3. The streamlining of the policy objectives also leads to some amendments to correct certain cross references, remove unnecessary cross references or redundant terminology, or repeal entire provisions. These changes apply to subsections 7(1), 9(1)(b), 9(4), 10(1), 23(2), and 46(1).

448. In the case of subsection 10(1), CNOC also added paragraphs (l) through (n), providing that the Commission may make regulations relating to its practice and procedure, establishing criteria for awarding costs (which is a new power CNOC believes should be included in the *Broadcasting Act*), and generally for carrying out the purposes of the *Broadcasting Act*. CNOC also clarified in paragraph (h) that the Commission can make regulations regarding the voluntary mediation of disputes between programming undertakings and distribution undertakings as well as arbitrate these disputes.

449. Currently, the *Broadcasting Act* does not specify what happens when the Commission makes regulations that do not necessarily apply to licensing, which CNOC notes is more likely to occur with the expanded powers that CNOC is proposing be granted to the Commission under the *Broadcasting Act*. As such, subsection 10(2) simply clarifies that the regulations made by the Commission, if applicable to persons holding licences in that capacity, may be made applicable to

all persons holding licences or to persons holding licences of one or more class; and in all other circumstances, may be of general application or applicable in respect of a particular case or class of cases.

450. In subsections 13(2) and 13(3) CNOC simply proposed to clarify and streamline the language.

451. In subsection 15(1) CNOC has added proposed language to clarify that not every proceeding that the Governor in Council asks the Commission to conduct will necessarily involve a public hearing.

452. CNOC is proposing that subsection 18(4) be repealed in its entirety. Currently, paragraph 21(2)(c) of the *CRTC Rules of Practice and Procedure* provides that the Commission may set the place of a hearing taking place under the *Telecommunications Act*. CNOC submits that the procedural details of hearings under all of Canada's communications statutes should be left to the Commission to decide through regulations such as the *CRTC Rules of Practice and Procedure*.

453. Section 19 removes the requirement for the Commission to publish decisions in the *Canada Gazette*, which is an archaic way of communicating decisions to the public in the era of the Internet.

454. Subsections 22(1) and 22(2) involve necessary amendments to reflect CNOC's proposal to transfer most of the Minister of Industry's powers under the *Radiocommunication Act* to the Commission, which is discussed further below.

455. Subsection 23(5) removes the requirement for a directive issued by the Minister under subsection (3) to be published in the *Canada Gazette* as there is no real consultation process other than with the Commission and the Corporation. Similarly, CNOC's proposed changes to subsections 24(1), 24(3), and 26(3), remove archaic references to publishing decisions in the *Canada Gazette* or sending copies of decisions by registered mail.

456. CNOC has proposed that subsections 29(1) through (3) be repealed as it has consolidated everything to do with petitions to the Governor in Council in section 28.

457. In order to modernize the *Broadcasting Act* more fully, we have also harmonized many provisions of that statutes with the *Telecommunications Act* as we are proposing to amend the latter statute. Those matters are discussed in the subsection 11.1.3 below.

11.1.2 Stronger competitive safeguards are needed in the *Broadcasting Act*

458. Currently, there are shockingly few competitive safeguards in the *Broadcasting Act* and the word "competition" does not even appear in the statute. Given the prevalence of vertical integration in Canada's telecommunications and broadcasting industries, this is extremely problematic and can lead to the abuse of market power by the Incumbents. Therefore, CNOC is proposing the introduction of basic competitive safeguards into the *Broadcasting Act*, which are contained in a new Part II.4.

459. Most of the competitive safeguards that CNOC is proposing be introduced into the statute are already regulatory requirements from the *Broadcasting Distribution Regulations*[237], *Discretionary Services Regulations*.[238], or other Commission policies and orders, such as Broadcasting Regulatory Policy CRTC 2011-601[239], Broadcasting Order CRTC 2012-409[240], and Broadcasting Regulatory Policy CRTC 2012-407[241] ("BRP 2012-407"). However, as legislation is more durable than Commission made regulations, CNOC is suggesting that they be enshrined in statute. CNOC also broadens some of these safeguards such that they can apply to all relevant members of a broadcasting undertaking class, whether licenced or exempt, and not just licensees.

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237 *Broadcasting Distribution Regulations*, SOR/97-555 ["*Broadcasting Distribution Regulations"*].

238 *Discretionary Services Regulations*, SOR/2017-159. ["*Discretionary Services Regulations"*]

239 *Regulatory framework relating to vertical integration*, Broadcasting Regulatory Policy CRTC 2011-601, 21 September 2011.

240 *Amendments to the Exemption order for new media broadcasting undertakings (now known as the Exemption order for digital media broadcasting undertakings)*, Broadcasting Order CRTC 2012-409, 26 July 2012.

241 *Amendments to various regulations – Implementation of the regulatory framework relating to vertical integration*, Broadcasting Regulatory Policy CRTC 2012-407, 26 July 2012. ["BRP 2012-407"]

460. The first provision of new Part II.4, section 34.15, sets out the basic definitions that are used in the provisions that follow, including "affiliate", "platform", "production company", and "vertically integrated broadcasting undertaking."

461. New subsection 34.16(1) incorporates the undue preference or disadvantage provisions that already exist in section 9 of the *Broadcasting Distribution Regulations*, but expand their application to all broadcasting undertakings, not just licensees. CNOC has added a provision that the Commission may determine in any case, as a question of fact, whether a broadcasting undertaking has complied with new subsection 34.16(1). CNOC has also proposed, in new subsection 34.16(3), that the burden of proof in establishing any preference or disadvantage is not undue is on the broadcasting undertaking that gives the preference or subjects the person to the disadvantage. These are standard provisions that mirror the equivalent unjust preference or disadvantage provisions in section 27 of the *Telecommunications Act*.

462. CNOC has also incorporated section 15.01 of the *Broadcasting Distribution Regulations* into the *Broadcasting Act* through new subsections 34.17(1) and 34.17(2), which have been broadened to extend to all broadcasting undertakings and not just licensees. These new subsections enshrine in statute the obligations of a distribution undertaking during a dispute and ensure that distribution undertakings do not use their control over distribution to extract unreasonable terms and conditions from programming undertakings. Subsection 34.17(2) also makes the rates charged for programming interim during a dispute so that the Commission could, if it chose to do so, later retroactively vary them if it finds that the programming undertaking has overcharged the distribution undertaking.

463. New subsection 34.18(1) is based upon regulatory amendments that were established in BRP 2012-407.[242] A version of it is present in section 13 of the *Discretionary Services Regulations*.[243] The purpose of this subsection is to prevent a programming undertaking from granting a particular distribution undertaking a head-start by making new programming available to that distribution undertaking before it makes it available to other programming undertakings on

[242] BRP 2012-407 at paras 22-29.
[243] *Discretionary Services Regulations*, SOR/2017-159. ["*Discretionary Services Regulations*"]

reasonable terms and conditions. This is a particular issue in Canada where many programing and distribution undertakings are vertically integrated.

464. Subsection 34.18(2) provides that the distribution undertaking that distributes a new programming service with respect to which it has no commercial agreement shall abide by the rates, terms, and conditions established by the programming undertaking until an agreement is reached or the Commission renders a decision and provides that the rates are approved on an interim basis. This provision provides for what rates are payable when a distribution and programming undertaking are unable to reach a commercial agreement for a new programming service, but makes the rates interim such that the Commission could, if it chose to do so, later retroactively vary them if it finds that the programming undertaking has overcharged the distribution undertaking. This provisions is based on section 15.02 of the *Broadcasting Distribution Regulations.*

465. New subsections 34.19(1), (2), (4), and (5) enshrines in statute the current rules and definitions respecting inside wire that are contained in the *Broadcasting Distribution Regulations*. CNOC is also proposing new subsection 34.19(3) that clarifies the matters that the Commission may consider in establishing terms and conditions that are just and reasonable for access to inside wire. As with most of CNOC's suggestions for new Part II.3, these provisions do not require broadcasting undertakings to do anything new, but it is important to enshrine in statute as inside wire is a bottleneck essential facility that a distribution undertaking could use to obtain a monopoly over service to end-users if access is not provided on reasonable terms and conditions.

466. New subsections 34.20(1)-34.20(3) are specifically designed to guard against the abuse of dominance by Canada's vertically integrated Incumbents. These provisions require vertically integrated broadcasting distribution undertakings to make their programming available for distribution by unaffiliated distribution undertakings on reasonable terms and conditions, including rates. The failure of a vertically integrated broadcasting undertaking to make its programming available on reasonable terms and conditions is deemed to be unjust and reasonable and the giving of an undue preference or disadvantage pursuant to new subsection 34.16(1).

467. Another competitive issue that has occasionally plagued the broadcasting industry is tied selling whereby programing undertakings require programming services to be purchased as part of a package, instead of on a stand-alone basis. For example, a programming undertaking may try to force distribution undertakings to purchase several low-performing programming services in order to obtain a single high-performing service. The Commission decided that this was unacceptable with regard to specialty services in BRP 2012-407 and a similar provision exists in section 12 of the *Discretionary Services Regulations*. CNOC submits that prohibitions on tied selling is a fundamental competition law principle that should be enshrined in the statute for all programing services.

468. Finally, as with the *Telecommunications Act*, CNOC is proposing in new subsection 34.22 that the Commission be empowered to functionally or structurally separate entities where necessary in order to prevent the undue lessening or prevention of competition in a market for broadcasting services. CNOC notes that it is not necessarily advocating that this provision be used on any Canada's vertically integrated Incumbents at the present time but the presence of this power in the *Broadcasting Act* will act as an important deterrence on anti-competitive conduct by the Incumbents.

11.1.3 Harmonizing the *Telecommunications Act* and the *Broadcasting Act*

469. Currently, there are significant disparities between the *Broadcasting Act* and the *Telecommunications Act* with respect to the Commission's powers and the processes that parties must follow. There is no valid reason for these differences which cause unnecessary confusion and inefficiency in regulatory proceedings. As the Commission is responsible for administrating both statutes, its powers and the processes established under both statues should be as similar as possible. CNOC submits that the Commission's powers and the processes under the *Telecommunications Act* are clearer and more comprehensive and thus, CNOC has proposed language to harmonize many provisions of the *Broadcasting Act* with those in the *Telecommunications Act*.

470. The table below shows the provisions of CNOC's amended *Broadcasting Act* that CNOC is proposing to harmonize with the provisions of CNOC's amended *Telecommunications Act*, and

provides the location of the equivalent provisions in the amended *Telecommunications Act*. The third column indicates if the provision is significantly new, that is to say it does not exist in any form in the *Telecommunications Act* or has been extensively modified. The fourth column indicates if the provision is new to the *Broadcasting Act*.

Provision in amended *Telecommunications Act*	Provision in amended *Broadcasting Act*	Is the proposed provision significantly new in the Telecommunications Act? (If so, see explanations in Part 10.0)	Is the proposed provision significantly new in the Broadcasting Act?
2(1): Definition of "decision"	2(1): Definition of "decision"	N	Y
2(1): Definition of "person"	2(1): Definition of "person"	N	Y
2(1): Definition of "telecommunications service provider"	2(1): Definition of "telecommunications service providers"	N	Y
22(4)	10(3): Harmonizing timeframe	N	N
22(5)	10(4): Harmonizing language	N	N
67(4): New provision	10(5): New provision	Y	Y
22(4)	11(5): Harmonizing timeframe	N	N
22(5)	11(6): Harmonizing language	N	Y
48	12(1): Harmonizing language	N	Y
51	12(2): Harmonizing language	N	N
62(1)	12(3): Harmonizing language	N	Y
62(2)	12(4): New provision	Y	Y
48(2)	12(5): Harmonizing language	N	Y
63(1)	13(1): Harmonizing language	N	N

63(2)	13(2): Harmonizing language	N	N
63(3)	13(3): Harmonizing language	N	N
63(4)	13(4): Harmonizing language	N	Y
55	16: Harmonizing language	N	N
52(1)	17(1): Harmonizing language	N	N
52(2)	17(2): Harmonizing language	N	Y
52(3)	17(3): Harmonizing language	N	Y
49	20: Harmonizing language	N	Y
57	21: Harmonizing language	N	Y
12	28(1)-(11): Harmonizing language and timeframes, much is substantially new	Y	Y
64	31(1)-(6): Harmonizing language	N	N
64(7)	31(7): New provision	Y	Y
60	34.4 Harmonizing language	N	Y
38	34.5: Harmonizing language	N	Y
39	34.6(1)-(3): Harmonizing rules regarding designation of information as confidential.	N	Y (although there are some provisions in the *CRTC Rules of Practice and Procedure*)
39.1	34.6(4): Harmonizing rules regarding disclosure by Commissioner of Competition	Y	Y
50(1)	34.7(1): Harmonizing language	N	Y

50(2)	34.7(2): Harmonizing language	Y	Y
53	34.8: Harmonizing language	N	Y
54	34.9: Harmonizing language	N	Y
56(1)	34.10(1): Harmonizing language	N	Y
56(2)	34.10(2): Harmonizing language	N	Y
56(3)	34.10(3): Harmonizing language	Y	Y
61(1)	34.11(1): Harmonizing language	N	Y
61(2)	34.11(2): Harmonizing language	N	Y
61(3)	34.11(3): Harmonizing language	N	Y
65	34.12: Harmonizing language	Y	Y
66(1)	34.13(1): Harmonizing language	N	Y
66(2)	34.13(2): Harmonizing language	N	Y
66(3)	34.13(3): Harmonizing language	N	Y
66(4)	34.13(4): Harmonizing language	N	Y
66(5)	34.13(5): Harmonizing language	Y	Y
19	34.13(6)	Y	Y
23.4	34.22: Harmonizing language	Y	Y

72(1)	34.23(1)	N (but has substantial changes)	Y
72(2)	34.23(2)	N	Y

471. Many of the provisions in the table above that have a "Y" in the *Broadcasting Act* column and harmonize either with existing or proposed provisions in the *Telecommunications Act*, deal with the Commission's general powers, administration of the *Broadcasting Act*, various appeal routes from Commission decisions (i.e., back to the Commission to the Governor in Council or to the Federal Court of Appeal), evidentiary matters, and the treatment of confidential information. These changes are needed to ensure that the Commission has all of the necessary tools to regulate broadcasting and promote competition in markets for broadcasting services in the 21st century. Where we have proposed revisions to the Broadcasting Act based on amended or new provisions being proposed for the *Telecommunications Act*, we rely on the reasoning set out in Part 10.0 to justify the provisions in both cases.

472. A few new areas being proposed are particularly significant and are highlighted as follows:

(a) the ability for the Commission to award costs in broadcasting proceedings is being introduced in order to enable the participation of segments of the public that may not otherwise be able to participate in such proceedings (section 34.10);

(b) the Commission would be given the ability to levy administrative penalties for breaches of the *Broadcasting Act*, a power which the Chair of the Commission is also seeking in order for the Commission to be in a better position to enforce compliance with that legislation (section 34.14);[244]

(c) civil liability provisions are being introduced to recognize the consequences of breaches of the *Broadcasting Act* and conduct required or prohibited under it in a more competitive environment (section 34.23).

[244] Note: the administrative monetary penalties scheme for the *Broadcasting Act* would also apply to contraventions of a licence issued by the Commission, which is distinguishable from the scheme in the *Telecommunications Act.*

(d) new subsections 28(1) theorugh (11) of the *Broadcasting Act*, which correspond to section 12 of the *Telecommunications Act*, expand the power of the Governor in Council to vary, rescind, or send back for referral, decisions of the Commission made under the *Broadcasting Act* beyond just licensing decisions. These new subsections reflect CNOC's belief that the government has a right to have a say in defining the public interest when it comes to regulatory decisions, but that say must accord with statutorily defined policies. These new subsections also introduce the procedural fairness to the process for the Governor in Council to vary, rescind, or send back for referral decisions of the Commission that CNOC is also proposing be introduced into section 12 of the *Telecommunications Act*.

11.2 The *Radiocommunication Act*

473. Question 7.1 of the Terms of Reference asks: "7.1 Is the current allocation of responsibilities among the CRTC and other government departments appropriate in the modern context and able to support competition in the telecommunications market?" CNOC suggests that reform is needed in this area and that, in particular, responsibility for spectrum regulation should be transferred from the Minister of Industry to the Commission. CNOC is proposing extensive amendments to the *Radiocommunication Act* in order to achieve this transfer of responsibility, as well as to modernize the *Radiocommunication Act* and remove barriers to effective competition.

474. The text of CNOC's proposed changes to the *Radiocommunication Act* is attached as Appendix 10.

11.2.1 The Commission should be responsible for the regulation and management of spectrum

475. CNOC concurs with the conclusions of the 2006 TPRP Report that the majority of the Minister's powers under the *Radiocommunication Act* should be transferred to the Commission.[245] In particular, CNOC concurs with the 2006 TPRP Report that "moving the functions of spectrum regulation and management to the Commission will:

[245] 2006 TPRP Report at Recommendation 5-10.

- avoid duplication, overlap and inconsistencies
- reduce administrative costs
- allow for harmonized processes
- provide more stability through open and transparent processes free from political pressure
- allow for the development of a high level of expertise able to deal with complex and increasingly interrelated issues
- strengthen CRTC relationships with the international regulatory community (e.g. the FCC and other national regulators, ITU, Inter-American Telecommunication Commission, CITEL) and improve CRTC staff knowledge of global issues and trends."[246]

476. In Appendix 10, CNOC has set out in detail the numerous changes to the *Radiocommunication Act* that will be required in order to transfer the functions of spectrum regulation and management from the Minister to the Commission.

477. CNOC notes that it is proposing that the Minister retain certain powers where it makes sense for these powers to be vested in the Minister. For example, as subsection 5.1(2) contemplates the sharing of information gathered by the Commission with foreign governments, CNOC has retained a requirement for the Minister to approve any sharing of information before it occurs.

478. CNOC is also suggesting that the Governor in Council retain the powers in subsection 6(1) to make regulations related to Canadian ownership and control requirements, international treaties, maximum fines and terms of imprisonment, and anything else that is required to be prescribed by the *Radiocommunication Act*, but which has not been reserved to the Commission to prescribe.

479. In addition, the Minister's power to delegate his or her authority under the current *Radiocommunication Act* is very broad. As one of the reasons for transferring power over spectrum regulation and management to the Commission is to provide for a more transparent process by a tribunal that is independent of political pressure, it does not make sense for the Commission to be able to delegate its fundamental decision-making authority. Accordingly, CNOC is recommending language in new proposed subsection 3(5) that would remove the ability

[246] *Id.* at pg. 5-26.

of the Commission to delegate its key regulatory and management functions under the *Radiocommunication Act*. However, under CNOC's new proposed language, the Commission would be allowed to delegate various technical and administrative manners.

480. In anticipation of the Commission being primarily responsible for the administration of both pieces of legislation, CNOC has also sought to harmonize CNOC's updated version of the *Radiocommunication Act* with its updated version of the *Telecommunications Act*. In particular, the following changes were made to harmonize the updated *Radiocommunication Act* with the updated *Telecommunications Act*:

i. The definition of "decision" was harmonized between both statutes;
ii. Subsection 5.2(1)(l) has been harmonized with the updated *Telecommunications Act*;
iii. Subsection 5.2(2) mirrors subsection 68(2) of the updated *Telecommunications Act*;
iv. Subsection 5.2(3) recognizes the need to have a mechanism to publish regulations made by the Commission in the *Canada Gazette* and mirror subsections 69(1) and 69(2) of the updated *Telecommunications Act*;
v. The length of the limitation period in subsection 10(6) has been changed from two to three years to harmonize with the updated *Telecommunications Act*;
vi. Subsection 15.11(3) has been inserted to harmonize the ability of the Commission to impose a penalty in a decision in the course of a proceeding before it with the updated *Telecommunications Act*;
vii. Subsections 15.13(1) and 15.13(3) were modified and subsection 15.13(4) added to harmonize with the updated provisions in the *Telecommunications Act* respecting the entering into undertakings before and after notices of violation are served;
viii. Section 15.24 has been repealed and replaced to harmonize it with the updated provisions in the *Telecommunications Act* respecting the publication of the names of persons who enter into undertakings;

ix. The limitation period in subsection 18(5) has been harmonized with the updated *Telecommunications Act*; and,
x. The limitation period in subsection 19(4) has been harmonized with the updated *Telecommunications Act*.

481. However, in recognition of the fact that the government of the day should have the right to have a say in defining the public interest when it comes to regulatory decisions (so long as that say accords with statutorily defined policies), CNOC recommends that the Governor in Council's variation, rescission, and referral powers in the *Telecommunications Act* also apply to decisions made by the Commission under the *Radiocommunication Act*. The language to make this change effective is found in CNOC's proposed *Telecommunications Act* as discussed further above.

11.2.2 Spectrum auctions need to be designed to enhance competition

482. As noted above, Canada's mobile wireless market is extremely concentrated, with over 92% of the market held by the National MNOs. CNOC has already proposed amendments to the *Telecommunications Act* to ensure that competitors are able to access the essential facilities of the National MNOs, including their vast spectrum resources, in order to operate MVNOs, but more is needed to stimulate competition.

483. CNOC requests that the Panel recommend that a new subsection 5(1.2)(2) be added to the *Radiocommunication Act* that reads as follows:

> **Subsection 5(1.2.2)** In exercising the power under paragraph 5(1)(a) to issue radio authorizations, if the Commission adopts a system of competitive bidding under subsection (1.2.1) to select the persons to whom radio authorizations will be issued, the Commission shall consider whether any applicants or class of applicants determined by the Commission should be permitted or required to bid as a separate class for one or more of the radio authorizations in order to promote competition in the provision of radiocommunication services.

484. The purpose of this provision is to require the Commission to consider whether a set aside for certain spectrum blocks should be considered in every situation in which an auction mechanism is employed to allocated spectrum.

485. This provision could also be used to allow the Commission to set aside spectrum for fixed wireless Internet service providers to deliver high-speed Internet in rural and remote areas where wireline broadband is not economically practicable to deploy. CNOC's members that provide fixed wireless Internet have reported that a consistent problem with their ability to expand their fixed wireless networks and increase the bandwidth that they can offer end-users is their inability to access, on reasonable terms and conditions, unutilized or underutilized spectrum being held by the National MNOs on reasonable terms and conditions.

486. In order to give effect to subsection 5(1.2.2), CNOC has also proposed a new definition of a "radiocommunication service" in section 2.

11.3 The *Canadian Radio-television and Telecommunications Commission Act*

487. CNOC is proposing amendments to the *CRTC Act* in order to improve the governance and effective operation of the Commission. The text of CNOC's proposed changes to the *CRTC Act* is attached as Appendix 11.

11.3.1 Notification of term renewals

488. CNOC is proposing new language that would require the Governor-in-Council to inform members of the Commission, at least six months prior to the end of the member's term, whether the member will be re-appointed for an additional term.

489. The purpose of this proposed provision is to allow the Chairperson to more effectively assign members to hear matters that come before the Commission. For example, if a member knows six months before the end of their term that their position is not going to be renewed for a subsequent term, the Chairperson can avoid assigning that member to a hearing or process that will take over a year to conclude.

11.3.2 The selection of members

490. Currently, there are no guidelines in the *CRTC Act* for how the members of the Commission are selected. CNOC is proposing language that would require well-qualified members to be

selected in an open recruitment process and have diverse backgrounds and expertise relevant to the powers, duties, and functions of the Commission.

491. The purpose of this proposed provision is to ensure that there is a balance between commissioners with telecommunications and broadcasting backgrounds, and to ensure that they also have other relevant skills, such as finance, regulation, law, engineering, marketing, consumer advocacy, etc. CNOC's objective is to ensure that the members of the Commission are as diverse as the Canadian communications industry.

11.3.3 The retention of experts

492. CNOC is proposing that the *CRTC Act* clarify that the Commission has the ability to hire experts on a temporary basis to assist it in fulfilling its purpose. These provisions are necessary as it is not currently clear if the Commission has this power, but due to the highly technical, legally complex, and economic nature of telecommunications regulation, it may be necessary from time to time for the Commission to retain such experts and have the ability to pay for them.

11.3.4 Identifying decision-makers

493. The *CRTC Act* should also require members to write their names on all decisions that they issue, which currently they do not, unless there is a dissenting decision, which is extremely rare. It is a basic principle of procedural fairness that parties should know the identity of the decision-maker responsible for deciding their case.

494. CNOC is not suggesting that there have been any instances of bias on the Commission, this is simply a reasonable and desirable practice to ensure accountability and procedural fairness.

495. Overall, this requirement would strengthen the perception of the Commission as a fair and impartial administrative tribunal.

11.3.5 Maintain the Commission at its current size

496. The 2006 TPRP Report and the 2007 Model Act recommend that the size of the Commission be reduced to five members.[247] CNOC does not agree with this recommendation and believes that the size of the Commission should remain at thirteen members as many of the matters that come before the Commission are extremely complex and require large and diverse panels to address.

497. In addition, for Commission decisions that are subject to requests for review and variance, it is important for procedural fairness, that the Commission have members available who were not on the panel that rendered the original decision in first instance. The members deciding review and vary applications, which are essentially appeals, should not be the same members who decided the matter in the first instance.

11.3.6 Additional amendments

498. CNOC is proposing some minor changes to the language of subsection 12(2) to remove the distinction between full time and part time members of the Commission, which is now obsolete in any event. CNOC has also removed references to the administration of special Acts, as CNOC has recommended that these Acts be repealed.

12.0 THE POLICY DIRECTION

499. As noted above, CNOC believes that the current Policy Direction should be repealed in its entirety, as an interim measure, pending the enactment of new legislation, and that the Governor in Council should no longer have the ability to issue policy directions to the Commission. However, as an alternate interim measure, CNOC urges the Panel to recommend that the government enact immediately, the language proposed by CNOC for a new policy direction that will address many of the barriers to effective competition described above. The text of this new policy direction is attached as Appendix "12".

[247] 2006 TPRP Report at Recommendation 9-6.

500. The measures in CNOC's new policy direction are designed to address the barriers to competition described in section 4 above, to the greatest extent possible in a policy direction on a temporary basis, until corresponding provisions can be enacted under the *Telecommunications Act*.

501. First and foremost, CNOC has struck any requirement for the Commission to promote investment and construction in telecommunications facilities as a goal in and of itself as this has been counter-productive. As set out in the Ware Report, the overarching goal of the government should be to stimulate access to high quality telecommunications services at affordable prices, not to dictate whether those services are provided via facilities-based or service-based telecommunication service providers.[248] Facilities will be built by telecommunication service providers where it makes economic sense to do so.

502. In subsection 1(a) of CNOC's proposed policy direction, the Commission would be required to rely upon competition amongst telecommunications service providers to the maximum extent feasible as the means of achieving the telecommunications policy objectives. This would replace the current requirement for the Commission to rely upon "market forces" to the greatest extent feasible, which CNOC believes can be misinterpreted as a direction to avoid effective wholesale regulation. For example, this occurred recently in Telecom Decision CRTC 2018-97[249], in which the Commission decided that due to the requirement to rely on market forces to the maximum extent it feasible, it did "not consider it appropriate, at this time, to expand the types of providers that qualify for mandated wholesale access" to the National MNOs' mobile wireless infrastructure.[250] As noted above, however, the continued lack of access to the National MVNO's mobile wireless infrastructure for MVNOs has resulted in an extremely concentrated market for mobile wireless services with some of the highest prices in the industrialized world.

503. The unfortunate result of this wording is that the Incumbents have been able to increasingly assert their market power and re-establish their monopoly positions, and the Commission has failed

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248 Appendix 2, Ware Report, at paras 1-4.

249 Telecom Decision CRTC 2018-97, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*

250 *Id.* at para 126.

to act to restrain the devastating losses that competitors are suffering, as described more fully above.

504. In subsections 1(b)(i) through (iv) of CNOC's proposed policy direction, CNOC has largely retained the language of the current Policy Direction, to which CNOC does not object. However, in subsection 1(b)(iv) CNOC has removed the reference to "resellers" and replaced it with "telecommunications service providers". This is because service-based competitors are not simply resellers of Incumbent wholesale services. Such services are combined with service-based competitors' own services and facilities to provide retail services to the public.

505. In subsection 1(b)(v) CNOC has introduced new language that would require the Commission to address the persistent issue of Incumbent head-starts that is crippling competition in Canada's telecommunications markets.

506. In subsection 1(b)(vi) CNOC has proposed language to implement the requirements of the USMCA preventing the anti-competitive use of information obtained from competitors, by addressing the problem described above of insufficient separation between the wholesale and retail arms of the Incumbents.

507. In subsection 1(b)(vii) CNOC has proposed language to address the pervasive quality of service issues described above that are undermining the ability of service-based competitors to compete on a level playing field with the Incumbents.

508. In subsection 1(b)(viii) CNOC has proposed language to address the problem of Incumbent head starts being caused by the Incumbents willfully ignoring the Commission's directives with regard to rate-making, as is more fully described above in section 2.3, which details the regulatory history of FTTN.

509. In subsection 1(c), CNOC has largely maintained the language of the current Policy Direction, which promotes efficiency in Commission processes and does not negatively impact competition. However, due to the rapidly deteriorating situation of service-based competitors as

they continue to be unable to access FTTP and grapple with all the other issues described above in section 4.0, CNOC has added a requirement for the Commission to conduct a review of wireline wholesales services in 2019. CNOC is also concerned about the length of time that it can take for the Commission to rule on certain matters that are of vital importance to the survival of smaller service-based competitors and has therefore added a direction that the Commission continue to explore measures to improve the timeliness of the decisions that it renders.

13.0 FURTHER PROCESS IS NEEDED AS PART OF THE REVIEW OF CANADA'S TELECOMMUNICATIONS LEGISLATION

510. Given the importance of the present legislative review to the future of Canada's telecommunications industry, CNOC suspects that many participants in the review process will be making very lengthy submissions, which will most likely contain significant and complicated economic, technical, and legal evidence, to the Panel.

511. As the outcome of the legislative review may result in the Panel and the government being required to choose between the competing interests of different parts of the telecommunications industry, such as between the interests of service-based competitors and Incumbents, CNOC submits that all participants are entitled to procedural fairness.

512. Procedural fairness in the present instance would, at a minimum, require that participants who made submissions to the Panel in the first instance be afforded a right of reply to the submissions of other parties.

513. Consequently, in order to preserve the procedural fairness rights of all parties, CNOC urges the Panel to institute further process in the near future allowing for parties to make reply submissions. CNOC anticipates that it would fully participate in any such reply stage and that a reply stage would provide the Panel with a more fulsome and complete record on which to base its conclusions.

14.0 CONCLUSION

514. CNOC appreciates the opportunity to participate in this timely and important review of Canada's telecommunications legislation. With this review, the Panel and the federal government have an opportunity to address many of the issues that have continually retarded the development of vibrant and sustainable competition in Canada's communications markets.

515. While legislative reform on its own will not be sufficient for the development of vibrant competition in Canada's communications markets, it is a necessary first step.

516. CNOC urges the Panel to seize this historic opportunity and recommend conditions so that competitors can stop expending resources fighting for access to essential facilities before the Commission and instead focus on what they do best, running their businesses, injecting competition in Canada's telecommunications and broadcasting markets, and delivering affordable and high-quality telecommunications and broadcasting services to Canadians.

517. CNOC looks forward to continuing to assist the Panel in its work and would be pleased to address any questions that the Panel may have regarding this submission.