

May 15, 2019

VIA Intervention Comment Form

Mr. Claude Doucet
Secretary General
Canadian Radio-television and
Telecommunications Commission
Ottawa, Ontario
K1A 0N2

Dear Mr. Doucet,

Subject: Telecom Notice of Consultation CRTC 2019-57: Call for comments – Review of Mobile services

1. Pursuant to Telecom Notice of Consultation CRTC 2019-57 (TNC 2019-57), Review of mobile wireless services (TNC 2019-57), paragraph 55, the Canadian Communication Systems Alliance (“CCSA”) wishes to appear at the public hearing of this matter to address points raised in the interventions and responses to requests for information made by other parties to this proceeding.
2. CCSA speaks for independent communications distributors – smaller broadcasting distribution companies, telephone companies and ISPs – across Canada. CCSA represents more than 110 companies operating from sea to sea to sea, including across the North.

Executive Summary

3. CCSA’s membership comprises a broad range of communications distributors, from smaller companies which operate primarily as BDUs to larger, more sophisticated companies with extensive, state-of-the art broadband networks and competitive “triple-play” service offerings.
4. All CCSA members invest in and operate their own terrestrial distribution networks.
5. With the exception of some of its SILEC members, CCSA members, as a general proposition, have been unable to secure access to wholesale services they require to offer retail mobile telecommunications service. As such, they are limited to offering that “triple play” of television, telephone and Internet services.

6. Their inability to become MVNOs and offer a full “quad play” service offering is a serious competitive disadvantage for those companies.
7. More importantly, the inability of those companies to offer competitive mobile wireless services to customers, in the often rural and remote areas they serve, restricts those customers’ ability to choose among alternative providers and to benefit from competition in the mobile wireless service space.
8. As Canadians, generally, increasingly expect to access content and services through their smartphones and tablets, wherever they are, that disadvantage is becoming more serious for Canadians who live and work outside the largest urban markets. The “digital divide” created by that lack of access becomes even more pronounced than it has been to date.
9. CCSA strongly supports mandated wholesale access to the facilities required to enable competitive entry by MVNOs, including facilities-based telecommunications carriers such as the vast majority of CCSA members are today.
10. CCSA has teamed with the Independent Telecommunications Providers Association (“ITPA”) and the Canadian Network Operators Consortium (“CNO”) to co-sponsor evidence by Professor Zhiqi Chen of Delta Economics Group, Inc. Professor Chen’s report is titled *An Economic Analysis of Mandated Wholesale Access for MVNOs and Competition in the Mobile Wireless Telecommunications Industry in Canada* (the “Chen Report”) and contains international comparisons of the wireless market. The report is being filed on the record of the proceeding by CNO. CCSA concurs fully with Professor Chen’s findings in his report.
11. CCSA’s submission responds to the individual questions raised by the Commission in its Notice of Consultation. As described below, where relevant, those submissions reflect the conclusions set out in the Chen report.
12. Briefly, CCSA’s key submissions are that:
 - the relevant market for the purpose of assessing the state of competition in the retail market should be all retail mobile wireless services including voice, data and messaging;
 - the relevant market for provision of wholesale mobile wireless services should be provincial and MVNO wholesale access services should be mandated at that level;

- in addition to customary measures, such as price levels and price level changes, levels of rivalrous behavior and the like, levels of customers satisfaction should be accounted for in an assessment of the state of competition in the market;
- as matters stand today, the mobile wireless services market is not sufficiently competitive to protect the interests of consumers, especially outside the major urban population centres;
- generally, as is set out in the Chen Report, partly due to the coordinated activity of the large incumbent MNOs:
 - i. the prices paid by Canadians for mobile wireless services are high in comparison to prices paid in other international jurisdictions;
 - ii. penetration of mobile wireless services is low in comparison to penetrations achieved in other international jurisdictions; and
 - iii. levels of competition in the sector are low in comparison to those achieved in other international jurisdictions;
- the market shares of the incumbent Canadian MNOs remain extremely high and have not been affected in any significant way by the Commission’s previous measures to enhance competition in the sector;
- CCSA agrees with the Commission’s preliminary view that it should mandate wholesale MVNO access. The mandate should take the form of tariffed rates and a standard MVNO agreement, and should include the regional carrier, SaskTel, within that mandate;
- wholesale access to MNO RAN facilities should be classified as an essential service;
- MVNOs should be required to qualify as Canadian carriers and to meet the registration obligations of non-dominant carriers;
- the wholesale access framework should accommodate entry by “rebillers” – that is, less than “full MVNOs” – partly to give new entrants a means to introduce MVNO services in a timely fashion;
- commercial negotiation of MVNO rates is not an option: wholesale access must be at tariffed rates;

- phase-out of mandated access should be based on an analysis of the competitive state of the market and should not be tied to an arbitrary time frame;
 - introduction of mandated access will not create a serious disincentive to investment by MNOs and, if properly designed, will encourage additional network investment by competitive entrants; and
 - CCSA is hopeful that ISED's current review of its spectrum licensing areas and licensing requirements, including spectrum sub-licensing requirements, will, by making spectrum more available and affordable, also encourage increased network investment by MVNO entrants.
13. CCSA's larger, more sophisticated members continue to express a strong interest in the provision of MVNO services, in some cases under a "full MVNO" model. Affordability of wholesale access under publicly tariffed rates will determine whether they can offer such services and tariffed rates should be designed to encourage them to do so.
 14. Other CCSA members have expressed interest in the MVNO model if they can enter the market quickly at some level between the "full MVNO" and "rebillor" models and subsequently, develop their capabilities toward a "full MVNO" model. Such a pathway would encourage increased investment by those providers.
 15. Technological advances continue to enable more and better services to be delivered to Canadians over the mobile wireless platform. All Canadian should be able to benefit from those advances.
 16. Increasingly, Canadians demand and require access to affordable mobile wireless services. However, foreclosed as they are today, from access to the wholesale facilities needed to deliver those services, independent telecommunications providers that do not serve the major urban markets are unable to provide those services to the communities they serve.
 17. The regulatory framework for the provision of wholesale access in this sector should be designed to promote MVNO entry by such providers so as to support achievement of the objective of making broadband connectivity available to all Canadians at affordable prices, to enable all Canadians to benefit from robust competition in the sector and to reduce the impact of today's growing "digital divide."
 18. CCSA thanks the Commission for the opportunity to provide these comments.

Sincerely,



A handwritten signature in black ink that reads "C. J. Edwards". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Christopher J. Edwards
Vice-President, Regulatory Affairs

Regulatory

CANADIAN COMMUNICATION SYSTEMS ALLIANCE INC.

**Before the Canadian Radio-television and
Telecommunications Commission**

Telecom Notice of Consultation CRTC 2019-57

Review of mobile wireless services

May 15, 2019

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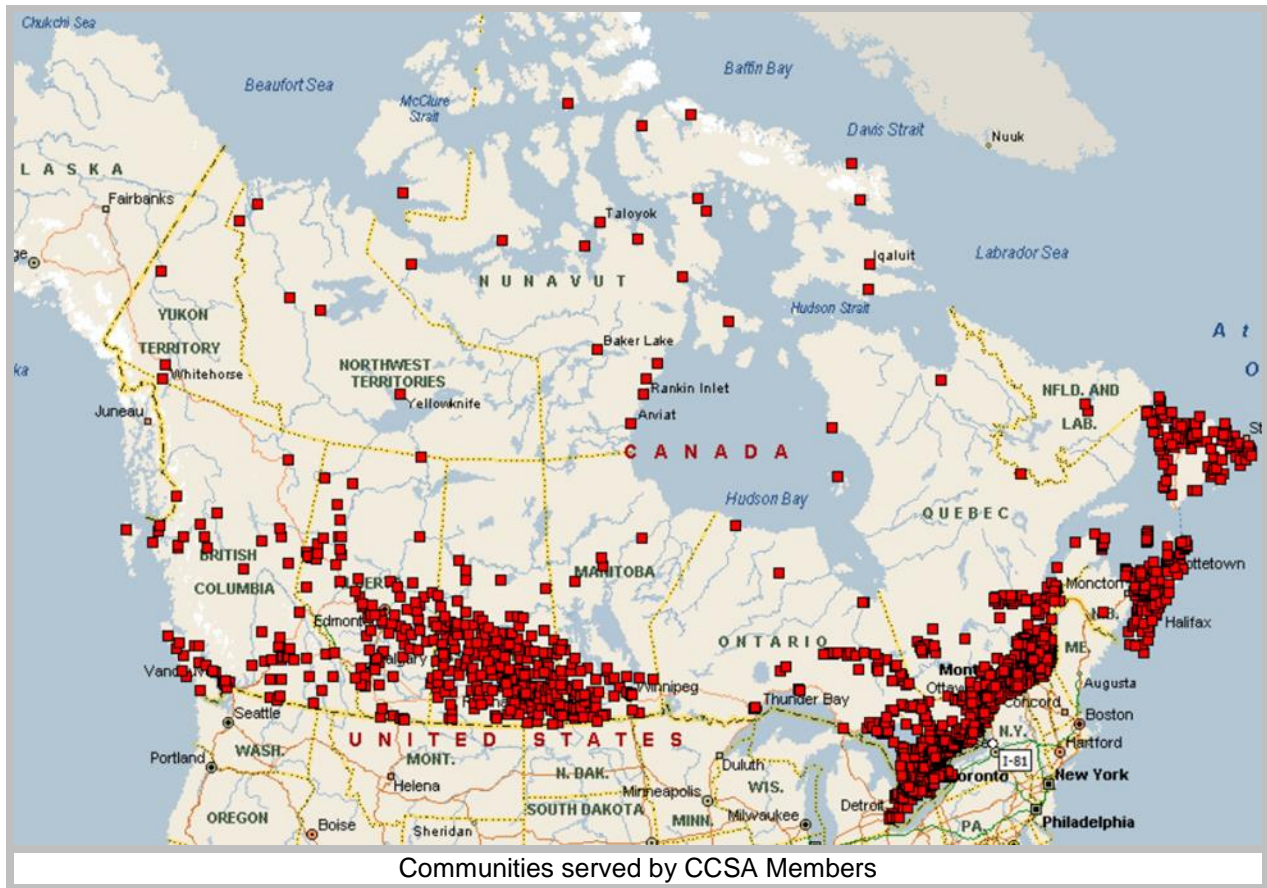
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Introduction

1. Pursuant to Telecom Notice of Consultation CRTC 2019-57 (TNC 2019-57), *Review of mobile wireless services* (TNC 2019-57), paragraph 55, the Canadian Communication Systems Alliance (CCSA) requests to appear at the public hearing.
2. CCSA is uniquely qualified to respond to the issues in TNC 2019-57). The association represents more than 110 independent Internet, television and telephone providers which serve hundreds of thousands of customers across the country, including the far north. The companies serve more about 379,000 customers in more than 1,200 communities in some of the most challenging geographic regions. Many of the communities served by CCSA members can realize significant benefits from MVNO competition.
3. For more than 40 years, CCSA members have invested heavily in fibre network construction, network technology upgrades and network expansion. The collective investment in broadband infrastructure gives Canadians in under-served and traditionally hard-to-reach markets access to services needed to participate in the digital world (see the map below). These substantial existing and ongoing investments in fibre networks also mean that the introduction of new technologies and services do not need to lag far behind urban centres.
4. CCSA members offer cable television service, high speed Internet access, streaming services, community channels, local telephone service, security services, point-to-point wireless services for remote customers, wholesale services to other service providers, long distance telephone service, on-demand viewing, locally produced programs, HD content, hosting services, data services and private networks for businesses. All services are not offered in all locations but they are offered in places where little or no competition would exist without network investments by CCSA members.
5. The range and quality of services offered by CCSA members are often equal to or better than similar services in urban areas, with one important exception.

6. CCSA members have sought to offer wireless service for many years. In spite of their best efforts, however, it has not happened through competitive pressure or through regulatory intervention. In this submission, we urge the Commission to mandate the wireless incumbents to provide MVNO Access on a tariffed basis.
7. In the following sections, CCSA provides answers to the questions posed in TNC 2019-57.



Competition in the retail wireless service market

Q1. Provide your views on how the Commission should define markets for the purpose of assessing the state of competition in the retail market.

a) How should the relevant product market be defined for the purpose of assessing retail competition? Can the product market be segmented for this analysis and, if so, how? For example, should the Commission consider prepaid and postpaid markets separately?

8. When assessing competition, the Commission defines the relevant service market as "the smallest group of services over which a firm could profitably impose a significant and non-transitory (i.e. sustainable) price increase."¹ However, recognizing that "it would be exceedingly onerous to gather data for every wholesale service product market for every location (e.g. community or exchange) in the country", the Commission also determined that "a balance must be struck between the use of meaningful and practical definitions for product and geographic markets, as well as the administrative burden associated with gathering and processing large amounts of data."²
9. When assessing the level of retail competition, the Commission has traditionally treated all retail wireless services as a single market.³
10. For the purpose of mandated MVNO Access, CCSA recommends that the Commission continue to treat all wireless services as a single product market.

b) What is the appropriate geographic market for the assessment of retail competition?

11. Like the definition of relevant service market, the definition of an appropriate geographic market is based on the smallest area over which a firm could profitably impose a significant and non-transitory price increase or exercise market power.
12. The Commission frequently relies on the Competition Bureau's Merger Enforcement Guidelines (MEGs) when defining the geographic market. In the proceeding leading to

¹ Telecom Regulatory Policy 2015-326, paragraph 34.

² Telecom Regulatory Policy 2015-326, paragraph 35.

³ Telecom Decision CRTC 2012-556, Telecom Regulatory Policy CRTC 2015-177,

Telecom Decision CRTC 2006-15, the Commission noted that parties agreed on the use of a "geographic component that reflects a social and economic community of interest, that, for example, has substantially similar local telecommunications market conditions, including common pricing and marketing strategies, local service providers and local service offerings; that is administratively practical and competitively neutral; and that has well-defined, stable boundaries"⁴

13. The lack of sufficient service-specific information for small geographic areas is a limitation when defining the appropriate geographic market. Fortunately, the Commission collects data from the incumbent wireless providers regarding the state of competition in provinces and selected urban areas. Although national wireless markets have been used by the Commission, geographic areas defined at a provincial level are more appropriate.
14. Provinces are smaller than the national market, service data is available for provincial markets, and provinces and satisfies the conditions observed by the Commission in Decision 2006-15, noted above.
15. The Commission uses ILEC exchanges as the appropriate geographic market for assessing retail competition in the context of wireline telephone service. The recognized substitutability of wireline and wireless voice services suggests that a geographic market for wireless service should be smaller than national but need not be as small as exchange areas. Using provinces as geographic markets is a reasonable compromise.
16. In the context of the Competition Bureau's assessment of Bell's acquisition of MTS, the Bureau noted that wireless services pricing is lower in areas with a strong regional competitor and that customers where there is a strong regional competitor use substantially more data than customers without a regional competitor present. The Bureau concluded that the observed pricing differences could not be explained by quality, differences in

⁴ Telecom Decision CRTC 2006-15, *Forbearance from the regulation of retail local exchange services*, paragraph 83.

demand or by factors other than the presence of a strong regional competitor.⁵

17. The Bureau cited an example of Bell's offering a 5 GB plan for \$105 in Ontario and the same plan for \$60 in Manitoba.⁶
18. The observation indicates that competition is not uniform across provinces and that the presence of a regional competitor may result in lower rates for customers. Use of provincial geographic areas would reflect the presence of a regional competitor.
19. In its assessment of the acquisition of MTS by Bell, the Competition Bureau also noted that:

The relevant geographic market for assessing the Proposed Transaction was found to be no broader than the province of Manitoba. Mobile wireless carriers can, and do, set different prices for mobile wireless plans in different Canadian provinces.⁷

20. For the above reasons, CCSA recommends that the Commission use each province as the appropriate geographic market for the assessment of retail competition.

c) Identify the key market indicators for the assessment of the state of retail competition in the mobile wireless service market(s). In other words, what specific evidence should the Commission gather and how can that information be used to assess competitiveness?

21. Market indicators the Commission should use to assess the state of retail competition include:

- Price levels for comparable services between provinces;
- Changes in prices over time;
- Introduction of new technologies;
- Entry by new competitors, including MVNOs and MVNEs;
- Market share of incumbents over time; and,

⁵ Competition Bureau, *Competition Bureau statement regarding Bell's acquisition of MTS*, February 15, 2017, at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04200.html>

⁶ Ibid.

⁷ Competition Bureau, *Competition Bureau statement regarding Bell's acquisition of MTS*, February 15, 2017, at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04200.html>

- Market penetration within geographic markets over time and comparisons between geographic markets.
22. Other indicators which could be used but require data which is more difficult to obtain or assess, include:
- Improving or diminishing levels of customer service and satisfaction;
 - Profit levels and existence of supra-normal profits;
 - Evidence of rivalrous behaviour including prevalence and trends in advertising, promotions and offers; and,
 - Presence of predatory pricing.
23. In response to Question 2, CCSA identifies a number of customer service failures by wireless incumbents that were serious enough to warrant Commission intervention. It is also noted that the Commission has placed an added emphasis on customer satisfaction when assessing the success of competitive markets. This marks a change from the past when the Commission has traditionally focused on indicators such as market share, pricing dynamics and advertising and promotions when assessing the state of retail markets.
24. While these traditional measure remain important indicators, they provide little information about customer satisfaction. In a competitive market there is an expectation that customers will either be satisfied with their service or will find a better alternative. The annual reports of Complaints for Telecom-television Services (CCTS) show an increasing level of frustration on the part of customers; when the Commission invited comments on a draft wireless code, "Canadians responded by submitting over 3,500 comments in writing and posting close to 600 comments on the online discussion forum."⁸
25. In a proceeding leading to Telecom Decision 2001-217, the Commission considered appropriate retail quality of service indicators for wireline telephone services. In that proceeding, the incumbents argued the "competitive market provides a powerful incentive

⁸ CRTC New Release, CRTC invites Canadians to comment on a draft wireless code, January 28, 2013

to maintain very high levels for customer satisfaction and they are sensitive to their customers' perceptions and needs."⁹ The Commission concluded that regulation of retail quality of service is needed only where there are "low levels of competition in some areas and customers are still largely captive to their incumbent local carriers."¹⁰

26. CCSA acknowledges that if markets are competitive enough, it will force competitors to ensure that customers are satisfied with service. If there is insufficient competition, incentives to invest in better systems, employee training and other improvements to improve and sustain customer satisfaction will be weak.
27. If the Commission determines that it is important to assess the state of retail competition, measuring customer levels of satisfaction in addition to or in place of the traditional economic indicators is needed. CCSA provides more information about how measuring customer satisfaction or dissatisfaction can inform the Commission about the state of competition in response to questions below.

Q2. Comment on the competitiveness of the mobile wireless service market(s). Are the mobile wireless service needs of Canadians currently being met? How have competitive conditions changed over the past five years? If the Commission's mobile wireless service regulatory framework remains unchanged, what do you expect the level of competition to be in the future?

28. In TNC 2019-57, the Commission notes that retail market concentration and the need for Commission intervention in the wireless retail market in recent years indicate that "aspects of this market are not, in fact, sufficiently competitive in the current state to properly protect the interests of users and further the policy objectives set out in section 7 of the Act."¹¹
29. CCSA agrees with this preliminary assessment. In particular, CCSA does not believe the wireless market is sufficiently competitive to protect the interests of consumers.

⁹ Decision CRTC 2001-217, *CRTC creates new quality of service indicators for telephone companies*, paragraph 4.

¹⁰ Decision CRTC 2001-217, *CRTC creates new quality of service indicators for telephone companies*, paragraph 6.

¹¹ Telecom Notice of Consultation CRTC 2019-57, *Review of mobile wireless services*, paragraph 26.

30. In recent years, some regulatory intervention has been required to address the following:

- The language in retail wireless service contracts was confusing and a significant source of customer frustration.¹²
- Incumbent wireless service providers unilaterally changed terms and conditions in retail agreements while binding customers to three-year contract terms and significant early cancellation fees.¹³
- Invoices with unexpected charges resulting in amounts many times greater than normal monthly bills causes “bill shock” among retail customers.¹⁴
- Customers were charged for mobile premium services without their consent.¹⁵
- Incumbent wireless service providers locked mobile devices sold to customers making it difficult for them to take advantage of competitive offers, inconsistent with a dynamic market place. The Commission characterized the problem as “one of the most significant sources of consumer frustration with wireless services.”¹⁶
- Retail customers were not informed about device warranties resulting in purchases of unnecessary additional warranties from the wireless service providers.¹⁷
- Customers were charged for wireless services they did not use while mobile devices were repaired.¹⁸
- Three-year contract terms with significant and complicated early terminations charges made it difficult for customers to change service providers, take advantage of competitive offers, upgrade devices and remain under device manufacturers’ warranties, and resulted, in some cases, in payments far in excess of the cost of the device.¹⁹
- The Commission for Complaints for Telecom-Television Services (CCTS) identified

¹² Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 43.

¹³ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 77.

¹⁴ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 114.

¹⁵ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 142.

¹⁶ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 152, 153 and 162.

¹⁷ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 173.

¹⁸ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraph 181.

¹⁹ Telecom Regulatory Policy CRTC 2013-271, *The Wireless Code*, paragraphs 215-232.

111 confirmed breaches of the Wireless Code between August 1, 2017 and July 31, 2018, an increase of 29% over the same period in 2016/17.²⁰

- The CCTS received almost 13,000 complaints about wireless services, an increase of 49% compared to 2016/17. About 18% of these related to misleading information and the non-disclosure of important aspects of the service. “Many customers tell us that they were expecting to pay a certain price for their services only to be billed at a higher rate than agreed.”²¹
- Some wireless services were marketed as prepaid but billed effectively the same as postpaid wireless services, including overage charges when the prepaid balance reached zero, resulting in bill shock.²²
- Wireless service providers applied the maximum data roaming charge of \$100 per device on a customer’s account instead of applying it once to the account holder creating bill shock for an account with multiple devices.²³

31. This long list of customer grievances clearly illustrates that the mobile wireless service needs of Canadians are not being met.
32. In the past, the Commission found that the wireless market was competitive,²⁴ but Commission’s recent interventions to address retail service problems and the CCTS reports concerning customer complaints, indicate that the retail market is no longer sufficiently competitive to protect the interests of consumers.
33. The *Telecommunications Act* (The Act) specifies in Section 34(3) that:

The Commission shall not make a determination to refrain under this section in relation to a telecommunications service or class of services if the Commission finds as a question of fact that to refrain would be likely to impair unduly the establishment or continuance of a competitive market for that service or class of services.

²⁰ Commission for Complaints for Telecom-Television Services, 2017-18 Annual Report, pages 7 and 11.

²¹ Commission for Complaints for Telecom-Television Services, 2017-18 Annual Report, page 19.

²² Telecom Regulatory Policy CRTC 2017-200, *Review of the Wireless Code*, paragraphs 92-93.

²³ Telecom Regulatory Policy CRTC 2017-200, *Review of the Wireless Code*, paragraphs 92-93.

²⁴ Telecom Decision CRTC 94-15, *Regulation of Wireless Services*.

34. If the wireless regulatory framework remains unchanged, the anticipated benefits of competition will not be realized and customer levels of satisfaction will continue to deteriorate.
35. The significant problems identified by the Commission in two proceedings to address the wireless code and the CCTS reports showing continuing breaches of the Wireless Code are getting worse. For the six months ended January 31, 2019, the CCTS recorded a 42% increase in breaches to the Wireless Code. This follows an increase of 29% in 2018 over 2017.²⁵ This does not provide the whole story. The CCTS reports that it accepted 9831 complaints between August 1, 2018 and January 31, 2019. Some complaints to the CCTS involve multiple issues. For the six months there were more than 22,000 issues identified and 37% of them were related to wireless service. In addition, there were at least 6413 issues that fell outside of CCTS mandate which could not be addressed. Presumably, many of these were also customer complaints about wireless services.
36. Issues about wireless service pricing are not within the CCTS mandate. Pricing, is a significant problem raised by customers. The Competition Bureau's assessment of Bell's purchase of MTS provides a good illustration.
37. The Competition Bureau's observations, noted above, about the nature of mobile wireless competition in Canada identify a serious potential problem with wireless pricing. When the three largest incumbent wireless carriers compete in the same markets, rates are significantly higher than rates for the same service in markets where there is a strong regional competitor such as SaskTel, Tbaytel or Videotron. In Ontario, with a high concentration of customers and the presence of Rogers, Bell and Telus in most areas, Bell's rate was 75% higher than in Manitoba and Bell's Virgin brand rate was 56% higher in Ontario than in Manitoba, for the same services.
38. A smaller wireless service provider intent on price competition can cause overall lower

²⁵ The CCTS year is from August 1 to July 31.

rates in the market its market than the three largest wireless carriers "competing" alone.

39. Recent events indicate that the large incumbent wireless providers will not adequately address customer problems without regulatory intervention. Wireless rates are lower when there is legitimate competition, such as a strong regional competitor. The long list of customer complaints and frustrations with the largest wireless carriers, the increasing number of wireless code violations, the lack of price competition among the three largest wireless carriers and the effect that a strong regional competitor can have on rates lead to one conclusion. The wireless market is not sufficiently competitive and, as the Commission notes, more needs to be done to "reduce barriers to entry, and address concerns about affordability and service adoption in the mobile wireless service market."²⁶
- Q3. *Are there issues that require regulatory measures at the retail level (i.e. beyond current measures such as the Wireless Code and mandatory participation in the Commission for Complaints for Telecom-television Services Inc. [CCTS])? If so, what are the issues and what measures would be required? Explain why these measures are necessary.***
40. CCSA has no issues requiring regulatory measures at the retail level to identify at this time.
- Q4. *Discuss how Canada's retail mobile wireless service market(s) compare(s) internationally, and provide any studies and reports you have in this regard. Which countries offer the best comparisons with Canada and why? Discuss whether international comparisons are meaningful in the context of mobile wireless service regulation.***
41. Independent studies and reports (i.e., not commissioned by wireless carriers) indicate that Canada's retail wireless service rates are higher than rates for similar services in other countries. The NGL Nordicity Group Ltd., 2017 *Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions*, dated October 5, 2017, and the Wall Communications Inc. 2018 *Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions* prepared for Innovation, Science and Economic Development Canada (ISED) are examples.

²⁶ Telecom Notice of Consultation CRTC 2019-57, *Review of mobile wireless services*, paragraph 16.

42. Comparison of mobile wireless service rates between countries is not without difficulty. Unintentionally comparing dissimilar services, in identifying the most relevant services and price plans for comparison, and in adjusting rates for foreign currency or purchasing power are important considerations. CCSA submits that international comparisons can be useful but should not be determinative for policy making.
43. It is also important that international rate studies used for regulatory and policy purposes be conducted by arms-length third parties. Companies and associations with a vested interest in the study results are not likely to release the results if contrary to their interests.
44. The data, methodology and models used to create the reports should be made public. Results of studies are often questioned and criticized for alleged methodological flaws. Making the data available along with a full explanation of the methodology, including models used to produce the results, so that the published results can be tested or reproduced is needed to ensure rate comparisons and the report's conclusions are reliable.
45. CCSA recommends that the Commission continue to rely on its annual Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions prepared by independent consulting firms. CCSA notes that the study provides a stated purpose, includes caveats about interpreting the findings, and has a comprehensive comparison of rates across Canada, incorporates services and rates provided by both competitors and incumbents, and provides contextual information to help assess the competitive situation and rate comparisons in each province.
46. CCSA does not have access to studies or reports that are not already public.
- Q5. *If the retail market, or a portion of it, is found to be insufficiently competitive to protect the interests of users, what regulatory measures (e.g. the application of additional conditions of service or mandating of the provision of lower-cost data-only plans), if any, ought to be applied to ensure that the policy objectives of the Act, as well as the Policy Direction, are met?***
47. CCSA submits that the existing regime has failed to protect the interest of users. Examples

of the failures to protect the interest of users are provided in response to Question 2.

48. The options available to the Commission are to rely more heavily on regulatory intervention or make the mobile wireless market sufficiently competitive so that the interests of users will be protected. For some period of time, both may be required.
49. Canada is long overdue for the creation of a fully competitive mobile wireless market. Competitive markets exist for local telephone service, long distance service, high speed Internet service and broadcast services. In each of these markets, there are competitors with their own facilities, those that rely on wholesale arrangements, and everything in between. Consumers have a wide option of wireline providers, services, rate plans and technologies. It is now time to make the same true in the wireless market.
50. Almost four years ago that the Commission concluded that there was significant demand for wholesale MVNO Access but very few arrangements in place. At the time it was observed this “has resulted in the prevention of competition from MVNOs in the downstream retail market and, consequently, fewer choices for consumers.”²⁷ Although the Commission did not mandate the introduction of wholesale MVNO Access services, two steps were taken to encourage the emergence of a competitive market for wholesale MVNO Access.²⁸
51. In spite of the Commission’s hopes, a competitive market for wholesale MVNO Access did not develop. At this time there is no effective wholesale market for mobile wireless services.
52. The introduction of a wholesale mobile wireless service regime will significantly advance the introduction of the long-awaited benefits of competition. Entry by MVNOs will promote the level of competition needed to protect the interests of users quicker and more

²⁷ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 105.

²⁸ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 124.

efficiently than any other course of action open to the Commission.

53. The absence of MVNO competition in Canada contrasts sharply with competition in the U.S. In July 2018, the CTIA provided comments in response to the FCC's request for submission on the state of mobile wireless competition.²⁹ The CTIA represents the U.S. wireless industry, including MVNOs, before the FCC.³⁰ In the filing, the CTIA identified the following examples of MVNO services:

- MVNO TracFone which provides low-cost plans for consumers with limited cellular wireless needs and “pay-as-you-go” offerings for consumers that are looking for the flexibility to pay only for the services that they use.
- Armed Forces Mobile, an MVNO that focuses on providing wireless services to veterans and first responders, which recently announced a prepaid unlimited plan for \$45 per month.
- MVNO Ultra Mobile which provides low-cost plans that include unlimited international calling and texting to dozens of countries across the world.³¹

54. The fact that MVNOs promote competition to the benefit of customers are acknowledged in the U.S. by the wireless industry. This is entirely consistent with the Commission's own conclusions that wireless prices are lower in areas with more competitors than in regions with fewer competitors.³² It is essentially the same observation made by the Competition Bureau in the assessment of Bell's acquisition of MTS. The Competition Bureau stated:

The results of this analysis showed that mobile wireless pricing in Saskatchewan, Thunder Bay, Quebec and Manitoba is substantially lower than in the rest of Canada.

²⁹ Comments of CTIA, *In the Matter of Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition*, WT Docket No. 18-203, July 26, 2018;

<https://ecfsapi.fcc.gov/file/10727028840239/180726%20CTIA%20Comments%20on%20Mobile%20Wireless%20Competition.pdf>

³⁰ Comments of CTIA, *In the Matter of Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition*, WT Docket No. 18-203, July 26, 2018, Footnote 1.

³¹ Comments of CTIA, *In the Matter of Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition*, WT Docket No. 18-203, July 26, 2018, pages 8, 14 and 15.

³² Telecom Decision CRTC 2018-97, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, paragraph 65.

These are all areas that have a strong regional competitor.³³

55. The mandated introduction of wholesale mobile wireless services will create the same benefits as observed in similar markets. CCSA believes that the interests of users will be significantly improved with the MVNOs and that the mandating entry is a more efficient course of action than a misplaced hope that the large incumbent wireless carriers will change on their own accord.

Wholesale mobile wireless service regulatory framework (roaming and MVNO Access)

Q6. Discuss whether the current wholesale mobile wireless service regulatory framework effectively supports competition in the retail market.

56. An essential service is a facility, function or service that is monopoly controlled, is required as an input by a competitor to provide service and cannot be economically or technically duplicated.³⁴
57. The Commission has already determined that MVNO Access provided by Bell, Rogers and Telus is an essential service.³⁵ In 2015, the Commission declined to make it a mandated service, hoping instead that the incumbents would begin providing MVNO Access on their own initiative.
58. None of the national wireless carriers made MVNO Access available even though, as noted by the Commission, there was significant demand for it, including from CCSA members. CCSA is not aware of entry by any new MVNO over the last four years.
59. The Commission has consistently found that additional competition would benefit Canadians and that MVNOs are an untapped source of competition leading to lower rates, service innovation and rate plan innovation. In recent years, the Commission has observed:

...the presence of smaller wireless carriers in the retail market has resulted in

³³ Competition Bureau, *Competition Bureau statement regarding Bell's acquisition of MTS*, February 15, 2017

³⁴ Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service*

³⁵ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 109.

significant price reductions and increased consumer choice.³⁶ (Emphasis added)

The Commission notes that there are few wholesale MVNO Access arrangements in Canada, despite significant demand demonstrated on the record of this proceeding. Denial of access to the national wireless carriers' GSM-based networks has resulted in the prevention of competition from MVNOs in the downstream retail market and, consequently, fewer choices for consumers.³⁷ (Emphasis added)

With respect to wholesale MVNO Access, the Commission considers that MVNOs can play a role in increasing consumer choice and value in the retail market.³⁸ (Emphasis added)

Potential MVNOs submitted that large wireless carriers have generally refused to negotiate MVNO arrangements, or, where they have been willing to negotiate, offer unreasonable rates and terms. Parties interested in entering the retail market as full MVNOs also submitted that wireless carriers will only consider providing wholesale access on a branded reseller basis.³⁹ (Emphasis added)

60. In the proceeding leading to TRP 2015-177 Bell admitted that it had “no MVNO relationships” and could not identify or quantify “offers, expressions of interest and negotiations related to the provision of mobile virtual network operator (MVNO) services on a wholesale basis.”⁴⁰ Telus also admitted it had no MVNO customers.⁴¹
61. It also appears that certain companies identified as MVNOs are not actually MVNOs. In the case of PC Mobile, for example, Telus has a licence from Loblaws Inc. for use of the brand name to sell post paid services. Customers of PC Mobile service have service contracts directly with Telus and not with Loblaws. PC Mobile is not an MVNO, it is another Telus wireless brand and according to Telus, PC Mobile does not constitute “either

³⁶ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 104.

³⁷ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 109.

³⁸ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 120.

³⁹ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 77.

⁴⁰ Bell Mobility(CNOC)9Jun14-102 TNC 2014-76.

⁴¹ TELUS(CRTC)3March14-9, page 1.

a MVNO or MVNE arrangement."⁴²

62. As of October 2, 2018, Telus eliminated the PC Mobile post paid service. Customers were transferred to Koodo, a Telus flanker brand.
63. Clearly, MVNOs are not a competitive force in Canada.
64. The incumbents create the appearance of competition through the use of flanker brands. Bell Mobility has two flanker brands, Rogers has three and Telus has two for a total of seven flanker brands in Canada.⁴³ They all provide service on their respective owner's network, they are managed by the same management and their prices are determined by the national wireless carriers. Some of the flanker brands were once MVNOs or facilities based wireless carriers that were acquired by national carriers. Fido, was formerly Microcell and a facilities-based competitor; Virgin was an independent MVNO and acquired by Bell, Cityfone and Fido were wireless carriers and acquired by Rogers; and Public Mobile was a wireless carrier acquired by Telus.
65. While consumers may perceive that there are many competitors in the wireless market, there are actually only three national wireless carriers and a regional wireless carrier in some areas.
66. The Wall Communications report found:

As was seen last year, the price differentials between regionals and incumbent flanker brand prices have generally widened, whereas the differentials between regional and incumbent primary brand prices have largely remained unchanged. In other words, average prices offered by incumbent flanker brands rose and are now closer to those of the incumbents' primary brands, while the regionals' price discounts relative to the incumbents' primary brands generally remained the same.⁴⁴
67. There is room for improve competition in the wireless market and MVNO entry is an

⁴² TELUS(CRTC)3March14-9, page 2.

⁴³ Bell: Virgin Mobile, Lucky Mobile; Rogers: Fido, Chatr Mobile, Cityfone; Telus: Koodo Mobile, Public Mobile

⁴⁴ Wall Communications Inc., *Price Comparisons of Wireline, Wireless and Internet Services in Canada and with Foreign Jurisdictions, 2018 Edition*, August 29, 2018, Prepared for Innovation, Science and Economic Development Canada, Page 25.

effective way to introduce innovation in pricing, service features and addressing demands from niche markets.

Q7. Discuss whether there have been any developments, technological or otherwise, that would require the current wholesale roaming policy to be modified. For any proposals to modify that policy, provide rationale for why the change is necessary and how it would benefit retail competition.

68. CCSA members do not have experience with the existing wholesale roaming services and so CCSA has no comments whether any modifications to the wholesale roaming policy is required.

Q8. Comment on whether the Commission's preliminary view that the national wireless carriers should be required to provide wholesale MVNO Access on a mandated basis is appropriate. Should this requirement apply to other wireless carriers as well and, if yes, why?

69. CCSA agrees with the Commission's preliminary view that the national wireless carriers should be required to provide wholesale MVNO Access on a mandated basis. CCSA also submits that this requirement should include SaskTel.

70. SaskTel is a regional competitor but it has the largest LTE network in the province covering 99% of the population.⁴⁵ It also has 607,000 wireless customers⁴⁶ and 62% market share⁴⁷ making it the largest wireless carrier in Saskatchewan by far. Bell held approximately 19%, Telus 14% and Rogers 5% of the market share.⁴⁸ Without MVNO access to SaskTel's RAN, areas of the province and population cannot benefit from MVNO competition.

The incumbents have proven to be unresponsive:

71. In TRP 2015-177, the Commission determined that MVNOs should be permitted to acquire mobile network codes from the Canadian Numbering Administrator and that Bell,

⁴⁵ SaskTel 2017/18 Annual Report, page 38.

⁴⁶ SaskTel 2017/18 Annual Report, page 11.

⁴⁷ Communications Monitoring Report 2018, page 160.

⁴⁸ Communications Monitoring Report 2018, CMR 2018 - Retail Mobile Sector, Table 6.6.

Rogers and Telus must permit roaming to customers of MVNOs. These changes, the Commission said will "reduce certain barriers faced by MVNOs to facilitate, and allow more flexibility in, their commercial negotiations with wireless carriers."⁴⁹

72. The Commission also said that it had taken action to reduce barriers faced by MVNOs to “facilitate, and allow more flexibility in, their commercial negotiations with wireless carriers” which the Commission expected would “encourage the emergence of a competitive market for wholesale MVNO Access.”⁵⁰
73. In December 2017, Rogers told the Commission that it “is open to negotiating MVNO arrangements.”⁵¹
74. It is disappointing but not surprising that the Commission's expectations did not come to fruition. No matter what is said, the incumbents' actions have made it clear that wholesale MVNO Access will not be offered voluntarily.
75. Negotiating with incumbents that have no incentive or requirement to successfully conclude negotiations does not often result in success. This is the history of negotiating with incumbents for access to all telecom markets and is no different in the wireless market.
76. Wireless competition by MVNOs has not emerged notwithstanding the Commission’s expectations or Rogers’ implied offer to make it available. CCSA is not aware of any MVNO entering the market since the Commission issued TRP 2015-177 in May 2015.⁵² Very little has changed and the Commission's conclusion at that time remains true today:

⁴⁹ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 124.

⁵⁰ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 124.

⁵¹ Rogers, Final Comments, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, December 1, 2017, paragraph 34.

⁵² A company called dotmobile announced in February 2019 to become an MVNO in the Toronto area. It said it was in the process of registering as an MVNO with the CRTC but had not initiated discussions with any of the incumbent wireless carriers. <https://dotmobile.app/posts/read-our-press-release-about-brand-and-website-launch>, <https://mobilesyrup.com/2019/03/07/mvno-dotmobile-crtc-funding/>

The Commission notes that there are few wholesale MVNO Access arrangements in Canada, despite significant demand demonstrated on the record of this proceeding. Denial of access to the national wireless carriers' GSM-based networks has resulted in the prevention of competition from MVNOs in the downstream retail market and, consequently, fewer choices for consumers.⁵³ (Emphasis added)

MVNO Access is an Essential Service:

77. The Commission has determined that, in order for access to the radio access network (RAN) to be essential, it must satisfy three conditions; 1) it is required by competitors to provide services in the downstream market; 2) it is controlled by a firm that possesses upstream market power such that denying access will likely result in a substantial lessening of competition in the retail services market; and, 3) it is not practical or feasible to duplicate the RAN.
78. **Required by Competitors:** Wireless services, by their nature, require use of a radio access network (RAN). The ability to use a voice or data service while travelling and in places where wireline connectivity is not available is fundamental and the primary reason why wireless service is purchased by customers. Wireless services are substitutes for wireline services but the opposite is not true.
79. When mobile communications are required, the wireless RAN is the only means to provide it. Spectrum cannot be replaced with fibre, copper or coaxial cable. Companies simply cannot use wireline networks to provide voice and data services for use while travelling or when a customer is away from their wireline services.
80. Use of a RAN is indispensable for providing wireless services and is a required input and by competitors to provide telecommunications services in the downstream market.
81. **Controlled by a firm with market power:** The RAN is controlled by firms possessing upstream market power such that denying access to the RAN will result in a substantial lessening of competition in the downstream retail market.

⁵³ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 109.

82. None of the wireless incumbents have permitted access to their RAN. Terms, conditions and pricing for access to the RAN are exclusively determined by each wireless carrier. Without a mandated requirement to provide competitors with connection to the RAN, each of the incumbents is in an uncontestable position to deny access and this is exactly what they have done. The incumbents have consistently denied access to the RAN which has prevented competition and fewer choices for consumers.
83. **Duplication is not practical or feasible:** Wireless services cannot work without the use of spectrum. Given that it is a public good and is scarce, the use of spectrum is tightly regulated by ISED. Obtaining licences to use a single band or compatible bands of spectrum throughout a province or within a geographic area the size of typical Local Interconnection Region (LIR), for example, is not possible for new entrants. Spectrum, or the lack of it, is a primary reason why duplication of the RAN is not practical or feasible.
84. If there were no restriction on use of spectrum and financial resources were available, duplicating the RAN within a province or within a geographic area similar in size to most LIRs would take many, many years to complete.
85. A RAN requires the installation of antennas in strategic locations for the most efficient coverage within an area. Identifying the optimal locations is only the beginning and is followed with negotiating access to existing towers, the exchange of information, determining whether or not the tower can sustain additional equipment, including power requirements.
86. If a tower cannot be shared, alternatives such as leasing roof top space, acquisition or lease of land and tower construction are considered. Negotiating leases for roof top space or land use can be lengthy and costly processes without any guarantee of success. New entrants without the experience and name recognition as national carriers will likely be met with resistance.
87. Roof top space raises many of the same issues carriers confront when negotiating building access. Reluctant landlords, high or discriminatory lease rates, reasonable access to power

and power backup storage, and acceptable arrangements for accessing the building and equipment are challenges to be overcome.

88. A RAN further requires fibre or radio links to connect to the installed antennas. If fibre needs to be installed, construction permits, approval of rights of ways and applications for support structures use are necessary steps to create a RAN.
89. The fact that existing RANs cannot be practically and feasibly duplicated by competitors is a primary reason the Commission determined that access to the RAN is an essential service.⁵⁴
90. Most of this cannot begin and none of it can be completed until spectrum is obtained through auctions, which happen infrequently, or the new entrant manages to purchase and transfer licences from existing spectrum licensees. This is not practical or feasible.
91. Without the ability to duplicate the scale and coverage of incumbents' wireless networks, access to existing RANs is the only means available to provide wireless services by a new entrant.

MVNO Competition:

92. The current situation in Canada is contrasted with the environment in the U.S. In December 2018, the FCC issued its report on the status of telecommunications competition.⁵⁵ MVNOs represent a relatively small but significant and persistent presence in the U.S. market.
93. The FCC has also noted that "strategic partnerships between MVNOs and facilities-based

⁵⁴ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 109.

⁵⁵ Federal Communications Commission, In the Matter of Communications Report, GN Docket No. 18231, The State of Mobile Wireless Competition, WT Docket No. 18-203, Status of Competition in the Market for the Delivery of Video Programming, MB Docket No. 17-214, Status of Competition in the Marketplace for Delivery of Audio Programming, MB Docket No. 18-227, Satellite Communications Services for the Communications Marketplace Report, IB Docket No. 18-251, Report, released December 26, 2018. The 4Q17 column labels were added. The FCC describes Connected Devices as being "primarily mobile, non-voice devices, including (but not limited to) Internet access devices (e.g., wireless modem cards and mobile Wi-Fi hotspots), tablets, e-readers, smart watches, and telematics systems."

providers increase competition and consumer welfare by providing service to various market segments using the capacity of the hosting facilities-based provider and the marketing strategy and distribution network of the MVNO."⁵⁶

94. The Commission has determined that MVNO Access is an essential service and that Bell, Rogers and Telus collectively possess market power.⁵⁷ The Commission has determined that in spite of significant demand for MVNO Access, the incumbents have refused to provide it.⁵⁸ The Commission has also concluded that MVNOs can increase customer choice and make the market more competitive.⁵⁹ These findings lead to the inescapable conclusion that MVNO Access must be mandated.
95. CCSA endorses the Commission's view that the national wireless carriers should be required to provide wholesale MVNO Access on a mandated basis. The same obligation should be extended to SaskTel.
- Q9. Comment on how a wholesale MVNO service should be structured and implemented. In particular, discuss the following:***
- a) whether there should be a requirement for an MVNO to own a minimum amount of facilities in order to be eligible for a wholesale MVNO service. If so, what should that amount be and how should evidence of facilities ownership be demonstrated by a potential MVNO seeking access?***
- b) whether there should be other restrictions or eligibility criteria. If so, why?***
96. The Commission has determined that the RAN is an essential facility and has determined that, without access to it, there is a lessening of competition. At a minimum, the Commission should mandate the RAN be made available on a wholesale basis for use by MVNOs.

⁵⁶ Sixteenth Wireless Competition Report, 28 FCC Rcd at 3741 ¶ 35.

⁵⁷ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraphs 88 and 109.

⁵⁸ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 105.

⁵⁹ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 120.

97. In order to connect to an incumbent's RAN, an MVNO must have facilities to reach the RAN point(s) of connection. These could be leased or owned. Encouragement of facilities-based competition and investment suggests that new competitors should own a portion of the network. A requirement that MVNOs have some facilities ownership encourages investment.
98. CCSA notes that the Commission was reluctant to mandate MVNO Access in 2015 because it may deter wireless investment.⁶⁰ Restricting MVNO Access to carriers with facilities ownership provides a means for the Commission assess whether wireless investment is truly jeopardized. If wireless investment is not affected, the Commission could remove the facilities ownership requirement and mandate rebilling arrangements.
99. CCSA does not believe that a cautious approach is necessary. Setting the groundwork for competition, lacking in the current environment, will enable many competitors to enter, offer a range of services, pricing arrangements, bundled services and respond to niche markets. Nevertheless, should the Commission determine that an MVNO is required to own a minimum amount of facilities to be eligible for a wholesale MVNO service, requiring facilities ownership and registration as a non-dominant carrier is an effective method.
100. Requiring MNVOs to register as carriers is a method of encouraging facilities ownership. The Commission currently requires facilities-based competitors to register as non-dominant carriers. The proposed non-dominant carrier must provide the Commission information concerning its transmission facilities, locations, and ownership.
101. CCSA does not believe that there is a need for other restrictions or eligibility criteria but notes that the Commission has an existing protocol in place for proposed MVNOs. The existing registrations requirements should remain in place.

c) whether it would be appropriate and/or feasible to establish different regulatory

⁶⁰ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 121.

requirements for wholesale MVNO service on the basis of geographic divisions. For example, should the service be mandated provincially or on another basis, as opposed to nationally?

102. The benefits of competition develop when there is a minimum level of restrictions on new entrants. New entrants are in the best position to identify new niches and experiment with new services and rate plans, so long as there are no restrictions preventing it.
103. CCSA recommends that the wholesale MVNO service be mandated for the coverage areas served by the national wireless carriers and SaskTel. It was the Commission's determination in TRP 2015-177 that "there is no rivalrous behaviour between the national wireless carriers in the provision of GSM-based wholesale MVNO Access at a national level."⁶¹ Given that the assessment of market power was at the national level and that the Commission concluded there is no rivalrous behaviour at the national level, a mandate to provide wholesale MVNO Access should also be at the national level.
104. Administrative ease in the creation, introduction and maintenance of MVNO Access regulatory requirements is an important consideration. The Commission determined that assessments on a service-by-service basis and applied on a national basis avoided significant administrative effort on behalf of industry participants, minimized the intrusive requirements, resulted in administrative simplicity and provided the great degree of regulatory certainty compared to other approaches.⁶²
105. Other approaches may become more compelling as the Commission acquires better understanding of MVNO Access. For the introduction of a new regulatory regime, however, the introduction of a single set of national regulatory requirements offers less complexity and requires less time, effort and resources to create an MVNO regulatory regime.
106. It is not clear that information comparable between provinces or regions is available. Much

⁶¹ Telecom Regulatory Policy CRTC 2015-177, Regulatory framework for wholesale mobile wireless services, paragraph 86.

⁶² Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service*, paragraphs 46-47.

will depend on the level of disaggregated information recorded by the national carriers and whether the disaggregated information is measured on the same basis and directly comparable.

107. MVNO Access requirements developed on a provincial basis requires more effort but may not produce better results. Market conditions differ within a province, the same as they do nationwide. Establishing regulatory requirements for regions at a provincial level or sub-provincial level could give the appearance of precision but not result in significant differences or be worth the additional effort required to achieve them.
108. Developing regulatory requirements at a provincial, census metropolitan area, postal code, free-calling or other standard requires disaggregated information. Generally, information that is more disaggregated is less likely to be disclosed.⁶³
109. When confidential information is used to render decisions that affect competitive markets, competitors are put at a significant disadvantage. Competitors actively engaged in the market frequently have the best experience and knowledge to comment on the information about the market. Use of confidential information restricts competitors' ability to challenge the data, which may be incorrect, or to comment on the interpretation of the information.
110. Imposing requirements on new MVNOs based on location, population density, type of facilities ownership or other criteria will introduce complexity and new challenges. Interpretation and application of the requirements, assessing compliance, unintended advantages or consequences resulting from differences in requirements and imbalances in the introduction of MVNO competition are implications of different regulatory requirements applied based on geographic divisions.
111. The implications of different regulatory requirements are often not predictable and can result in time and effort to resolve unintended consequences. The objective should be a uniform and simple set of regulations. Variations in regulations to reflect geography

⁶³ Broadcasting and Telecom Information Bulletin CRTC 2010-961, *Procedures for filing confidential information and requesting its disclosure in Commission proceedings*, paragraph 17.

should only be permitted when there are compelling circumstances that fully justify different regulatory requirements for MVNOs.

112. CCSA recommends that the Commission adopt a national regulatory framework for MVNO Access services.
113. CCSA recognizes that there may be some practical differences which must be observed between the wireless carriers. Matters such as interconnection locations, the number of interconnections, file formats for exchange of information, availability of certain technologies or arrangements, applicable standards and technology, and operational procedures peculiar to the wireless carrier may be required. These can be reflected in MVNO tariffs or in standard agreements for use between wireless carriers and MVNOs but must be subject to the Commission's regulatory oversight.

Q10. What terms or conditions should apply to regulated wholesale MVNO Access?

114. For reasons discussed above, the terms and conditions that apply to regulated MVNO Access services should be reviewed and approved by the Commission. The MVNO Access service should take the form of a tariff and a template agreement for use by proposed MVNOs.
115. Potential MVNOs have absolutely no bargaining power with respect to the incumbent wireless carriers. CCSA members have experienced this first hand in negotiations with the wireless carriers and their affiliated companies for many years in many different circumstances. Furthermore, the Commission recognizes that potential MVNOs have an inability to conclude negotiated agreements with national wireless carriers.⁶⁴ The Commission concluded that national wireless carriers have denied access to wireless networks, preventing MVNOs from competing in the retail market.⁶⁵

⁶⁴ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraphs 84 and 86.

⁶⁵ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 105.

116. Revising and lifting restrictions on MVNOs has not worked. Encouraging the national wireless carriers to entertain MVNO arrangements has not worked. And attempts by potential MVNOs to negotiate arrangements with national wireless carriers has not worked. Nothing, short of mandated MVNO Access to wireless carriers' networks will succeed.

117. CCSA recommends the Commission direct Bell, Rogers, Telus and SaskTel to file tariffs for approval that permit a) a form of connection similar to wholesale roaming, and b) full resale of existing and future wireless services at wholesale rates.

MVNO Access Connection

118. The Commission should mandate tariffed MVNO Access. All MVNOs require access to a large wireless incumbent's radio access network. MVNOs may choose to self-supply other components of the network, instead of relying on incumbents. Direct Interconnection, Indirect Interconnection and Full Resale are arrangements that would accommodate MVNO entry.

119. The Direct and Indirect forms of Interconnection are best suited for MVNOs that do not require services from incumbents other than access to the RAN. They are full MVNOs and may be currently operating as small wireless carriers.

120. Direct Interconnection requires access to one or more of an incumbent's switches. The interconnection is used to route the MVNO's customer traffic over the incumbent's RAN to the MVNO. The MVNO is then responsible for routing and billing the calls, similar to a CLEC routing and billing calls for landline service.

121. A full MVNO could possibly use Indirect Interconnection in addition to or instead of Direct Interconnection. Indirect Interconnection, adopted by the Commission for wholesale roaming service, requires connection to one or more third parties that provide hubs for the exchange of traffic and signaling, and provide settlement service and billing information between service providers. It appears that Indirect Interconnection could function for data

and text messaging services but not for voice services.

122. Voice traffic originating and/or terminating is typically delivered or received over CLEC interconnection trunks. Voice traffic may also be delivered or received over tariffed WSP interconnection trunks. This method of exchanging wireless voice traffic is a mandated and common method today and can be used by MVNOs.
123. A Full MVNO is defined by the Commission as a service provider "registered with the CRTC, owns and operates core network hardware separate from all WSPs (e.g. switches, routers) and has a service profile management system (e.g. Home Location Register [HLR], Home Authentication, Authorization, and Accounting [AAA], or Home Subscriber System [HSS]) for end-user devices that can access WSP networks in Canada."⁶⁶
124. MVNOs that satisfy this definition may acquire Mobile Network Codes (MNC).⁶⁷ This will facilitate the use of hubs and clearing houses as intended by the Commission. It also provides a means for MVNOs to obtain some of the needed connections to operate.
125. Direct and Indirect Interconnection by Full MVNO provides increased competition and benefits to customers in other important ways. MVNOs can issue their own SIM cards to customers or provide the underlying MNO's SIM cards to customers. When contracts are renewed, MVNOs considering moving to a different MNO must reissue SIM cards to all of their customers for the new MNO. This is costly and complex and likely will result in customer dissatisfaction. Knowing this, an MNO has negotiating power over an MVNO that wants to avoid the burdens associated with selecting a different underlying MNO. The risks of using an MNO's SIM card are mitigated with tariff terms, conditions and rates for SIM cards.
126. Full MVNOs that issue SIM cards are less captive to an underlying MNO. They can more easily transfer to a different underlying MNO. Knowing this, an underlying MNO is less

⁶⁶ Telecom Decision CRTC 2015-496, *CISC Canadian Steering Committee on Numbering - Revised Canadian International Mobile Subscriber Identity Guideline*, paragraph 15.

⁶⁷ Telecom Decision CRTC 2015-496, *CISC Canadian Steering Committee on Numbering - Revised Canadian International Mobile Subscriber Identity Guideline*.

capable of changing arrangements to the disadvantage of a Full MVNO. Improved negotiating power for the MVNO can lead to better pricing and better quality or benefits that an MVNO passes through to its customers.

Rebilling MVNOs

127. Competition does not require that all MVNOs be Full MVNOs. Most benefits of competition can be realized through rebilling arrangements of the type that have not been permitted to date. Competitive entry by rebillers can be quicker and less costly thereby providing competitive benefits identified and expected by the Commission.
128. MVNOs that intend on providing service through rebilling arrangements must have access to wholesale voice, data and messaging services from MNOs. In its simplest form, an MVNO can purchase quantities of voice minutes, data volumes and messages from an MNO and repackage the wholesale services into arrangements that are attractive to the MVNO's target markets.
129. An underlying MNO would provide an MVNO with SIM cards, telephone numbers, call detail records, basic fraud detection, and roaming service within Canada.

Q11. Discuss whether the Commission should set a wholesale rate for MVNO Access.

- a) If a rate is to be set, would it be appropriate to establish an interim rate as part of this proceeding and, if so, what principle(s) should be used to set that rate?***
- b) Alternatively, should the national wireless carriers be required to make available a certain amount of capacity on their networks for MVNOs to use at commercially negotiated rates? If so, how should the amount of reserve capacity be determined? In this scenario, would it be appropriate to have a default tariffed rate to act as a backstop if negotiations fail?***
- c) What are the advantages and disadvantages of each approach?***
130. In the absence of tariffed rates, terms and conditions and/or a template agreement for use between MVNOs and the national wireless carriers and SaskTel, there will be no MVNO competition.

131. Commercially negotiated MVNO Access rates are not an acceptable option. Incumbents never willingly permit competition in any of their regulated markets. In the Notice of Consultation, the Commission observed that "it has become increasingly clear that a mix of competitors has not developed to the degree that the Commission had expected in 2015" and that "there has been virtually no MVNO activity that would provide additional competitive retail options to Canadian consumers."⁶⁸
132. The Commission noted in 2015 that potential MVNOs were not able to "conclude arrangements they attempted to negotiate with the national wireless carriers."⁶⁹
133. As a result of this effort, a "sustainable retail MVNO market has failed to develop on its own."⁷⁰
134. Reverting back to a regulatory regime that requires MVNOs to negotiate rates with the incumbent wireless carriers will not produce results any different than did previous attempts negotiating MVNO arrangements.
135. The absence of any new MVNO entry in the last four years demonstrates the failure of commercially negotiated MVNO Access. As experiences of the recent past make clear, successful commercial negotiations for MVNO Access with a wireless incumbent are impossible.⁷¹
136. In the answer to Question 10, we noted that some of the elements for connection by Full MVNOs are available through third parties. Where third parties cannot provide certain functions, such as the exchange of voice traffic, the large incumbent wireless carriers should file tariffs. The tariff components should include 1) connection to the RAN at mobile switches or equivalent for the exchange of voice traffic; and 2) connection to the

⁶⁸ Telecom Notice of Consultation CRTC 2019-57, paragraph 37.

⁶⁹ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services*, paragraph 184.

⁷⁰ Telecom Notice of Consultation CRTC 2019-57, paragraph 38.

⁷¹ The Commission had a first hand insight into the problem when the Commission directed to file low-cost data plans for low-income Canadians. What they filed was anything but low-cost. The Commission said the proposals were "underwhelming" (Telecom Decision CRTC 2018-475, *Lower-cost data-only plans for mobile wireless services*, paragraph 40).

- RAN at mobile switches or equivalent for the exchange of data traffic.
137. In cases where Full MVNOs have business or affiliate relationships with CLECs, they should be permitted to use existing interconnection to the extent possible. CLEC bill and keep trunks, for example, can be used to send traffic to MVNOs. Similarly, CLECs with access to existing SS7 connections should be permitted to use these for MVNO purposes.
 138. The filing of tariffs and rates, with supporting cost studies, is a complex and lengthy process. CCSA notes that when a service is tariffed for the first time, such as MVNO Access, related issues can create further delay. Questions regarding points of connection, definition of service, proposed agreements, tariffed elements and other matters can arise and result in approval taking 12 months or longer. Taking into account the time needed to issue a decision in the current proceeding and the time for wireless carriers to prepare rates, terms and conditions for the Commission's review, interim rates are important.
 139. CCSA recommends that the Commission adopt the wireless carriers' wholesale roaming rates on an interim basis for use by Full MVNOs. The rates were recently approved by the Commission and the wholesale roaming services include most of the functions required by Full MVNOs. In the case of SaskTel, MVNO Access rates should be set equal to Bell's wholesale roaming rates on an interim basis.
 140. In the case of bulk wholesale wireless voice minutes, data and messages, the incumbent wireless carriers should be directed to file rates for approval. Given the complexity and delays associated with cost-based rates, CCSA recommends the use of tariffed wholesale roaming rates and use of existing tariffed services for additional elements required by MVNOs operating as rebillers. In the case of SaskTel, wholesale rates for rebillers should be set equal to Bell's wholesale roaming rates.
 141. Tariffed service elements required by MVNOs operating as rebillers include Call Detail Records, SIM cards, telephone numbers and number porting. With the exception of SIM cards, these service elements are comparable to services provided by Bell, Telus and Rogers as wireline carriers and the tariffed rates should apply on an interim basis for

MVNOs operating as rebillers.

142. In cases where the wireline counterpart of the wireless carrier does not have tariffed services, a wireless carrier should be directed to use the lowest tariffed rate from wireline tariffs of a large wireline incumbent.

Q12. Discuss what would be an appropriate phase-out process for a mandated wholesale MVNO Access service. For example, should the service be phased out on a specific, pre-determined date, be subject to a trigger that initiates a phase-out period, or be subject to another process?

143. The Commission has determined that the national wireless carriers have market power in the MVNO Access market and that MVNO Access is an essential service.⁷²

144. An essential service is one which meets all of the following conditions:

- a) it is required as an input by competitors to provide telecommunications services in a relevant downstream market;
- b) it is controlled by a firm that possesses upstream market power such that withdrawing mandated access, or denying access to the facility, would likely result in a substantial lessening or prevention of competition in the downstream retail market; and
- c) it is not practical or feasible to duplicate the functionality of the facility.

145. When developing a framework for the regulation of essential services, the Commission said:

The Commission's framework for determining whether wholesale services should be mandated should be predictable and practical for the industry and should constitute an efficient regulatory regime that provides a high degree of regulatory certainty to both incumbent carriers and competitors.⁷³

146. In order for the Commission to implement a phase-out process for mandated wholesale of MVNO Access, there must be a reasonable prospect that one of three things will happen

⁷² Telecom Regulatory Policy CRTC 2015-177, Regulatory framework for wholesale mobile wireless services, paragraphs 87 and 109.

⁷³ Telecom Regulatory Policy CRTC 2015-326, *Review of wholesale wireline services and associated policies*, paragraph 24.

- during the phase out period: 1) MVNO Access will not required by competitors; 2) withdrawing or denying MVNO Access will not result in a substantial lessening or prevention of competition; or, 3) it has become practical or feasible to duplicate the RAN.
147. It is unlikely any of these conditions will be met within a five-year period and it would be inappropriate to phase out mandated MVNO Access while the conditions continue to exist.
148. Dr. Chen shows that a phase-out period introduces risk for both new entrants and incumbents.⁷⁴ For new entrants it will result in a larger risk premiums and obstruct their entry.
149. CCSA recommends that the Commission follow the practice that typically occurs when wholesale services are mandated. Historically, the Commission takes steps to ensure wholesale services are introduced on a timely basis. The Commission obtains data from the industry to assess the level of competition and may, upon application by a party, refine the regulations, provide clarification on issues and provide direction when disputes arise.
150. CCSA notes that when access arrangements were first introduced for long distance competitors, local exchange service competitors and Internet service providers, there was no predetermined phase out process.
151. In 1997, when the Commission mandated the provision of access services required by Competitive Local Exchange Carriers, it was determined that certain of the services would no longer be mandated after five years.⁷⁵
152. In 2000, the Commission issued a Public Notice calling for comments on extending the period for mandated services offered to CLECs and how to determine the appropriate phase out period. In the proceeding, the Competition Bureau submitted comments which were noted by the Commission in its decision:

...the Competition Bureau proposed that the sunset rule be extended until such time

⁷⁴ Zhiqi Chen, PhD, Delta Economics Group Inc., *An Economic Analysis of Mandated Wholesale Access for MVNOs and Competition in the Mobile Wireless Telecommunications Industry in Canada*,

⁷⁵ Telecom Decision CRTC 97-8, *Local Competition*, paragraphs 86 and 98.

that sufficient competition exists in the provision of near-essential facilities and that a termination date not be specified. They argued that an analysis of the state of competition is a better objective standard than choosing a specific sunset date, since there is no way to predict beforehand the evolution of competition.⁷⁶

153. In 2001, the Commission issued a decision to extend the period of mandated service, without specifying a date. The Commission determined that mandated services required by CLECs should be provided by ILECs until the market was sufficiently competitive and the services no longer needed to be mandated. In the decision, the Commission stated:

...it is not possible to accurately forecast at this time the degree to which competition in the local market in fact will evolve. If too short a period is chosen and sufficient alternate sources (including self-supply) of near-essential facilities have not emerged, the evolution of local competition would be hampered. Too long a period would be unfair to the ILECs since they would be required to continue to provide such facilities (at mandated rates) despite competitive alternatives being readily available to the CLECs. The Commission therefore considers that extending the sunset period for a specific period would not be appropriate.⁷⁷

154. CCSA notes that, from a practical perspective, a phase out period is not required. The wireless carriers have sufficient incentive to notify the Commission when market conditions justify a review.
155. This is consistent with Dr. Chen's expert evidence that "the test for initiating the phase-out process should be based on market conditions rather than a predetermined time line."
156. The Commission has held periodic reviews of mandated wholesale services. The first review resulted in a decision issued in 2008, the next in 2013 and the last in 2015. In Telecom Regulatory Policy 2015-326 (TRP 2015-326), the Commission determined that the newly established wholesale services framework should remain in place for a minimum of five years.⁷⁸ Although the Commission may consider an application for a change in the regulation of a particular wholesale service before the end of the period, the party

⁷⁶ Order CRTC 2001-184, *Local competition: Sunset clause for near-essential facilities*, paragraph 5.

⁷⁷ Order CRTC 2001-184, *Local competition: Sunset clause for near-essential facilities*, paragraph 33.

⁷⁸ Telecom Regulatory Policy CRTC 2015-326, *Review of wholesale wireline services and associated policies*, paragraph 255.

requesting the review must provide evidence that the review and changes are required. The same approach should be used for mandated MVNO Access.

157. A decision in this proceeding is not expected until 2020. Since the next review of mandated wholesale services will occur in 2020 at the earliest, it will be too soon for a review of mandated MVNO Access. If, as a result of the next review of wholesale services, the Commission establishes a period during which the framework should remain in place, it may be appropriate to include MVNO Access in the subsequent review.

Future of mobile wireless services in Canada

Q13. Provide your views on the future of retail and wholesale mobile wireless services in Canada. How do you foresee the rollout of small cells and 5G technology taking place? Over what time period do you expect this rollout to occur?

Q14. What are the challenges facing carriers as they continue to deploy their networks, particularly with respect to small cells?

Q15. Identify any expected changes or new technologies that are likely to be deployed in Canadian wireless networks that will have regulatory implications in the near term. How can the Commission ensure that its regulatory frameworks account for market and technological changes?

158. The legacy silos of wireless and wireline are eroding. Common and multi-use technology platforms enable facilities-based competitors to employ networks for wireline, wireless and broadcasting services.

159. The Commission observed this trend eight years ago, stating, "The Commission notes that there have been significant market and technology changes in the telecommunications industry since the Commission first established its network interconnection regimes. For example, many service providers have evolved from single-market players to integrated local/toll/wireless operators, the networks are increasingly using IP technology, and mobile wireless substitution is a growing trend."⁷⁹

⁷⁹ Telecom Notice of Consultation CRTC 2011-206, *Proceeding to review network interconnection matters*, paragraph 17.

160. A few years later, the Commission introduced innovation and investment as a policy consideration used for making decisions with respect to mandated wholesale services.

Further, investment and innovation considerations are also important now and in the future. The telecommunications industry is in a transitional phase between the traditional circuit-switched legacy networks, and more advanced technologies, such as packet-based transport over fibre and wireless facilities. Therefore, the addition of investment and innovation as a policy consideration could encourage the transition away from investment in legacy networks and incent companies to invest in advanced network technologies to benefit Canadians.⁸⁰

161. CCSA members are on the vanguard of the transition to advanced network technologies to benefit Canadians. Some of the members have invested heavily to upgrade networks to fibre and IP providing much greater bandwidth capacity which has enabled the provision of services not possible five years ago. These investments continue. CCSA members also make significant investments into areas that were underserved to provide services at competitive prices. These are places where Canadians need services and where the Commission should be promoting investments by CCSA members.
162. CCSA's facilities-based members have made and continue to make investments into areas that are underserved. The map above shows investments in Nunavut, Labrador, and rural and northern Saskatchewan and Manitoba.
163. Each wireless carrier is closely affiliated with wireline and BDU divisions and benefit from wireless, Internet and BDU services sharing the use of a common IP network. By becoming MVNOs, facilities-based competitors could similarly use their networks for wireless, Internet, BDU and telephone services and realize the benefits of economies of scale and scope which could be passed along to customers in the form of lower prices and innovative services.
164. Technology and networks will continue to evolve multi use capability and, to the extent it has not already happened, distinctions between wireline, wireless and broadcasting will be

⁸⁰ Telecom Regulatory Policy CRTC 2015-326, *Review of wholesale wireline services and associated policies*, paragraph 50.

lost.

165. 5G will further minimize network segments dedicated to a single service. Wireline networks were always used for the transport of traffic originating and/or terminating over wireless networks. As wireless cells get smaller, the use of wireline becomes more important for transporting traffic over shorter distances. Fibre is pushed deeper into service providers' territories to support smaller cell sites.
166. Radio over Fibre (ROF) is a technology that has attracted attention recently as a way of efficiently transporting radio signals over relatively long distances without the need for digital to analogue conversion. Avoiding such conversion results in lower latency. ROF provides the means to use the same radio frequencies used by antennas and increase the efficiency and quality of networks.
167. A recent Deloitte study says that as much as 90% of Internet traffic is carried over the wireline network even though most Internet traffic terminates on a wireless device.⁸¹
168. Ericsson says that fixed wireless access (FWA) is more cost-effective than broadband services provided over fibre.⁸² Ericsson also predicts that 5G will have "comparable capacity and performance" to fibre access technologies.⁸³ AT&T's CEO predicts that 5G will become a "'fixed broadband replacement product' within the next three to five years, providing consumers with faster speeds than most existing cable and DSL connections."⁸⁴
169. Spectrum is a public resource and ISED administers spectrum with the objective of maximizing the economic and social benefits that Canadians derive from the use of the

⁸¹ Deloitte, *Communications infrastructure upgrade, The need for deep fiber*, July 2017, page 4; <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-5GReady-the-need-for-deep-fiber-pov.pdf>

⁸² Ericsson, *4G and 5G FWA unlocks a world of opportunity*, <https://www.ericsson.com/en/networks/trending/hot-topics/fixed-wireless-access>.

⁸³ Ericsson Mobility Report, November 2018, page 20, <https://www.ericsson.com/assets/local/mobility-report/documents/2018/ericsson-mobility-report-november-2018.pdf>

⁸⁴ The Verge, *5G can't fix America's broadband problems*, February 6, 2019, Randall Stephenson quoted from AT&T's earnings call on January 30, 2019; <https://www.theverge.com/2019/2/6/18212742/5g-broadband-replacement-att-rural-connectivity>

radio frequency spectrum resource.⁸⁵ 5G holds the promise of providing high speed fixed wireless service to businesses and residents located too far away to access high speed Internet services over fibre, coax or copper, or some combination. One challenge of making such high speed fixed wireless service available is fibre transport to and from 5G cell sites.

170. Deloitte has assessed the potential of 5G for the U.S. and determined:

Unlocking the full potential of 5G in the United States rests on a key assumption: the extension of fiber deep into the network. Despite the demand and potential economic benefits of fiber deployment, the United States lacks the fiber density in access networks to make the bandwidth advancements necessary to improve the pace of innovation and economic growth. Increased speed and capacity from 5G will rely on higher frequencies and network densification. Carriers will deploy many more small cells, homespots, and hotspots in higher bands, with a coverage radius measured in meters versus kilometers. Without more deep fiber, carriers will be unable to support the projected four-fold increase in mobile data traffic between 2016 and 2021.⁸⁶

171. This is not to say that the situation in Canada is identical to the situation in the U.S. but the need for more fibre deeper into networks is similar. CCSA members have fibre networks that can be used to support the roll-out of 5G and mandated MVNO Access will enable them to put existing fibre infrastructure to better use, encourage investment in new fibre and help maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource.

Q16. What are the issues associated with wireless carriers obtaining access to infrastructure, including towers, sites, structures, and fibre transport? Discuss whether the Commission's existing rules are sufficient to address these issues and what changes, if any, could be made to improve these rules under the Commission's current statutory framework.

a) If there is a need for the Commission to mandate additional wholesale services to

⁸⁵ See, for example, Innovation, Science and Economic Development, *Consultation on a Licence Renewal Process for Spectrum in the Bands 849-851 MHz and 894-896 MHz for Air-Ground Services*, SLPB-006-18, August 2018, paragraph 4.

⁸⁶ Deloitte, *Communications infrastructure upgrade, The need for deep fiber*, July 2017, page 4; <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-5GReady-the-need-for-deep-fiber-pov.pdf>

support network deployment, identify those services and demonstrate their essentiality in accordance with the Essentiality Test set out in Telecom Decision 2015-326.

b) If a wholesale service that ought to be mandated is currently forborne from regulation, explain how that service no longer satisfies the conditions for forbearance under section 34 of the Act.

172. CCSA and some of its members are aware of issues associated with obtaining access to support structures and fibre transport. In particular, costs and delays associated with rights of way and the rising costs of hydro support structures is a concern. Some municipalities take an inordinate amount of time to issue approvals and smaller carriers frequently do not receive the same priority as large carriers.
173. The cost of using hydro poles has increased significantly in recent years. Increases are approved by provincial authorities with jurisdiction over hydro rates and the costs are simply passed through to carriers. Public pressure to constrain hydro rate increases results in hydro regulators recovering additional revenue requirements from carriers that use poles.
174. While rates for use of support structure are important to CCSA members, CCSA cannot provide any insight into specific issues that wireless carriers may be confronting to obtain access to infrastructure.

Other matters

Q17. Are there any other matters, issues, or proposals related to mobile wireless services, beyond those listed above, that the Commission should be aware of and potentially make determinations on as part of this proceeding? Identify and explain why those issues are relevant and include proposed regulatory solutions.

175. Collectively, CCSA members own and operate services in more than 1,200 communities, serving many thousands of customers, using thousands of kilometers of fibre, coax and radio spectrum. CCSA members offer every communications service available in North America, with the exception of wireless service.

176. CCSA members are willing and able but to compete with the national wireless incumbents that offer multiple-play offers, but currently cannot. Mandating MVNO Access will improve wireless competition. The introduction of mandated MVNO Access will improve competition in television, Internet and wireline telephone services.
177. The incumbents' refusal to provide wholesale wireless arrangements to competitors limits the ability of CCSA members compete in television, Internet and wireline telephone services. It not only serves to protect the incumbents' wireless services interests; it impedes effective competition in other communications services.
178. More than 80% of CCSA members' customers have wireless service. That number continues to increase. Approximately 90% of those customer purchase their wireless services from one of the national wireless carriers or SaskTel. They do not have the opportunity to purchase wireless service from CCSA members. A customer lost to a competitor is difficult to repatriate. A customer lost to a wireless carrier because of an attractive bundle is almost impossible to recapture.
179. CCSA's members are prepared to compete for customers and compete to retain them. But they cannot be effective unless they can offer what is quickly becoming the single most important service in the bundle – wireless service.
180. CCSA members provide customers the ability to use multiple platforms to access services. As BDUs, CCSA members are ideally situated to offer entertainment on wireless devices. Each of the national wireless carriers, SaskTel and the relatively new regional wireless carriers affiliated with cable companies provide this feature.
181. The bundling of services is not only popular with customers, it is demanded by customers. Offering Internet access, television and telephone services does not help customers that want wireless on the same invoice and a single point of contact for all services. Making multiple bank payments or writing multiple cheques is old. It is not what consumers in the digital economy have come to expect.

182. At a time when a BDU's customers can increasingly access programming from other providers, CCSA members are prevented from retaining customers who expect streaming to wireless devices from their BDU. This, of course, puts the companies at a disadvantage in respect of BDUs with wireless divisions and disadvantages CCSA members that compete with U.S. giants like Netflix and Apple in Canada.
183. Bell wireless customers that subscribe to Bell's video services can stream the shows to their wireless devices; Rogers' wireless customers that subscribe to Rogers' video services can stream the shows to their wireless devices; and, Telus wireless customers that subscribe to Telus's video services can stream shows to their wireless devices. The same is true for Videotron and Eastlink. With MVNO Access, CCSA members will also be able to provide this standard feature now expected by customers.
184. CCSA members are disadvantaged but it is mostly unfair to customers. Bundles offer customers a single point of contact for all of their communications services. A customer can call once or visit one retail outlet for pricing information and service features for four services. A customer contemplating a move to a CCSA member needs to relinquish this convenience and be willing to work with two companies.
185. When the customer visits the retail store of their wireless provider they are very likely to find advertisements and price plans and hear sales pitches to bring all of their business to Bell, Rogers, Telus or SaskTel. No matter how much a customer appreciates their Internet, television or telephone service, an account holder can easily be lost to a better bundle. He or she only needs to say "yes" once to an attractive price for four bundled services or concede the ease of having a single service provider is better than two service providers. Once a customer has switched service providers, usually with a term contract, CCSA members have found that it is all but impossible to win back the customer.
186. A single point of contact for all communications service questions is particularly important when addressing compatibility of devices across different platforms - questions such as "If you can provide my television and home security services why can't I use my wireless

phone work to operate my home security system?" and "Why can't an incoming call ring on my wireless phone and wireline phone ring at the same time?"

187. Finally, the attraction of saving money when four services are bundled provide customers with a way of reducing the cost of total monthly communications services. Savings can be substantial. CCSA members have bundles available but triple-play bundles fall short of current customer expectations.
188. The advantages of four bundled services or Quad Play is gaining more attention in the U.S. Up until recently, AT&T and Verizon had the ability to offer a bundle including wireless but other competitors did not. Two of the largest cable companies are becoming MVNOs of Sprint's wireless service. Becoming MVNOs enables Comcast and Charter Communications to offer wireless, television, Internet and telephone as bundled services. It is estimated that 10% of U.S. households had a Quad Play bundle in 2017 and this will increase to 17% in 2020.⁸⁷
189. A 2018 study calls it a "Quad Play Imperative" and states that "Quad Play is no longer optional."⁸⁸ The report says:

Quad Play is becoming a real competitive advantage in the telecom market. With consumers wanting a more seamless experience and a better deal from their TV, wireless, broadband and phone providers, more people are choosing to do business with just one provider.

190. Another recent article about Comcast and its MVNO called Xfinity states:

“In the telecom industry, the importance of a quad play strategy cannot be understated from a customer experience standpoint,” added study author Jeffrey Johnson, market strategies director of research and consulting, in a prepared statement. “Consumers that sign up for multiple services are more valuable for the company. Our research shows that Comcast is now firmly rooted in quad play—a space that only AT&T and Verizon

⁸⁷ U.S. cable companies' wireless entry paves way for 'quad' play, June 30, 2017, <https://www.reuters.com/article/us-sprint-m-a-quadplay-analysis/u-s-cable-companies-wireless-entry-paves-way-for-quad-play-idUSKBN19L2HW>, last checked March 28, 2019.

⁸⁸ The Quad Play Imperative, May 3, 2018, <https://www.marketstrategies.com/blog/2018/05/the-quad-play-imperative/>, last check March 28, 2019.

have successfully dominated in the past.”⁸⁹

191. Permitting facilities-based competitors the option of becoming MVNOs and offering bundles that include wireless service is a way for the Commission to enhance competition in the wireless market. Bundling will permit BDUs and CLECs to bundle packages in innovative ways and increase price competition and service innovation to the benefit of customers.

*****END OF DOCUMENT*****

⁸⁹ Report Declares Comcast Quad Play ‘Firmly Rooted,’ With Verizon Being the Biggest Loser, May 2, 2018, <https://www.telecompetitor.com/report-declares-comcast-quad-play-firmly-rooted-with-verizon-being-the-biggest-loser/>, last checked March 28, 2019; 119. Xfinity, owned by Comcast, is an MVNO on the Verizon wireless network.