



Telecom Notice of Consultation CRTC 2019-57

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Notice of hearing

13 January 2020
Gatineau, Quebec

Review of mobile wireless services

Deadline for submission of interventions: 15 May 2019

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The Commission will hold a public hearing, beginning on **13 January 2020 at 9:00 a.m.**, at the **Conference Centre, Phase IV, 140 Promenade du Portage**, in **Gatineau, Quebec**.

[Attend the hearing or listen to it online.](#)

Introduction

1. In recent years, mobile wireless services have been a key driver of economic growth in Canada, and today they continue to be fundamental to the success of the digital economy. Canadians rely on mobile wireless services in many aspects of their lives: to communicate with each other, for entertainment, to conduct business, to interact with all levels of government, and to further their education. At the same time, mobile wireless services are enabling businesses to increase their efficiency and productivity, which, in turn, enables them to remain competitive in the global marketplace.
2. The retail mobile wireless service market continues to be the largest and fastest-growing telecommunications market sector in Canada. In 2017, retail mobile wireless services generated revenues of \$24.5 billion, representing an increase of \$1.24 billion, or 5.3%, over 2016 revenues. The number of subscribers continues to grow, reaching 31.7 million in 2017, an increase of 3.1% from the previous year.
3. Given the importance of mobile wireless services, as the market continues to evolve, it is necessary to review the associated regulatory framework to ensure that (i) it remains relevant, (ii) the needs of Canadians are met, and (iii) the policy objectives set out in section 7 of the *Telecommunications Act* (the Act) are being achieved.

Roles of the Commission and Innovation, Science and Economic Development Canada

4. The Commission and Innovation, Science and Economic Development Canada (ISED) each have roles in the regulation of the mobile wireless service market. Under the Act, the Commission has broad powers to regulate the provision of telecommunications services by Canadian carriers, including the rates, terms, and conditions associated with those services.
5. The Commission can also, in certain circumstances, refrain from the exercise of certain powers and duties under the Act – including the power to set rates and to require the filing of tariffs.
6. The Minister of Innovation, Science and Economic Development is responsible for spectrum management under the *Radiocommunication Act*. ISED has established various rules and policies that wireless carriers must follow as conditions of licence for holding spectrum. One such condition is that wireless carriers must provide mobile wireless roaming services to each other (wholesale roaming).
7. As part of ISED’s spectrum management responsibilities, it regularly holds public auctions for licences to operate in different bands of spectrum. The most recent spectrum auction, which was launched in 2018 and is still ongoing, is for the 600 megahertz band. It is expected that an auction for the 3500 megahertz band, which will likely be critical as fifth-generation (5G) networks begin to roll out, will be held in 2020.¹
8. ISED is also responsible for approving the siting of radio apparatus, including antenna systems and the structures that support them. ISED requires wireless carriers to share space on cellular towers; however, the particulars of these arrangements are subject to commercial negotiations.² The Commission can also employ its own powers to prevent unjust discrimination and undue preference in the provision of telecommunications services to resolve disputes between carriers with respect to tower and site sharing.

Background

9. In the mid-1990s, the Commission forbore, to a significant extent, from regulating the mobile wireless services offered by wireless carriers, including at the retail level, to allow competition and market forces to guide the mobile wireless service industry’s growth.³ This meant, among other things, that wireless carriers were not required to obtain prior Commission approval for the rates they charged.

¹ See ISED’s [Spectrum Outlook 2018 to 2022](#) for additional information.

² See ISED’s [Facts about towers](#) for additional information.

³ Ultimately, mobile wireless services were forborne from regulation except with respect to the powers retained by the Commission under section 24 and subsections 27(2), 27(3), and 27(4) of the Act.

10. In 2012, the Commission re-examined the conditions for forbearance in the retail mobile wireless service market (retail market).⁴ As a result of this exercise, the Commission used its powers to impose a mandatory code of conduct (the Wireless Code) on providers of retail mobile wireless services in 2013.⁵ In 2014, the Commission initiated a broad policy proceeding to review the state of the wholesale mobile wireless service market (wholesale market).
11. In May 2015, as a result of the 2014 wholesale policy proceeding, the Commission issued Telecom Regulatory Policy 2015-177, in which it established the current regulatory framework for wholesale mobile wireless services. In that decision, the Commission determined that Bell Mobility Inc., Rogers Communications Canada Inc. (RCCI),⁶ and TELUS Communications Inc. (TCI)⁷ (the national wireless carriers) collectively had market power in the national markets for Global System for Mobile communications (GSM)-based wholesale roaming and mobile virtual network operator (MVNO)⁸ access. At the same time, the Commission determined that certain wholesale services were essential for competitors to provide broad or national network coverage to their retail customers. As a result of these determinations, the Commission mandated the provision of wholesale roaming by the national wireless carriers (mandated wholesale roaming). However, the Commission did not mandate wholesale MVNO access due to concerns that doing so would undermine investment in spectrum and networks by facilities-based wireless carriers, particularly competitors.
12. In Telecom Regulatory Policy 2016-496, in recognition of the importance of mobile wireless services to Canadians, and in recognition of the reality that many Canadians rely on these services as their primary telecommunications service, the Commission declared that mobile wireless service forms part of its universal service objective, and declared that mobile wireless voice and broadband Internet access services were “basic telecommunications services” under the Act. This meant, among other things, that such services could be eligible for funding in areas that are currently underserved.

⁴ See Telecom Decision 2012-556.

⁵ See Telecom Regulatory Policy 2013-271.

⁶ In the proceeding that led to that decision, submissions were received from Rogers Communications Partnership (RCP). RCP ceased to exist on 1 January 2016. All of RCP’s business activities, including its assets and liabilities, are now held by RCCI. For ease of reference, “RCCI” is used in this notice.

⁷ In the proceeding that led to that decision, submissions were received from TELUS Communications Company (TCC). However, effective 1 October 2017, TCC’s assets were legally transferred to TCI and TCC ceased to exist. For ease of reference, “TCI” is used in this notice.

⁸ An MVNO is a wireless service provider that does not own spectrum or operate its own radio access network (RAN); instead, it relies on the spectrum and RAN of a wireless carrier and, in some cases, other facilities and/or services, to provide mobile wireless services to consumers. MVNOs encompass a variety of service-based providers that rely on wholesale services to varying degrees to support their retail businesses.

13. In March 2017, the Commission issued Telecom Decision 2017-56, in which it established final tariffed terms and conditions for mandated wholesale roaming. In that decision, among other things, the Commission confirmed that mandated wholesale roaming was intended to provide incidental, not permanent, access to the national wireless carriers' networks. At the same time, in Telecom Decision 2017-57, the Commission resolved a dispute between RCCI and Ice Wireless Inc. (Ice Wireless), whose affiliate, Sugar Mobile, was found to be inappropriately using Ice Wireless's roaming agreement with RCCI to support an MVNO business. The Commission determined that Sugar Mobile was no longer allowed to access RCCI's network for this purpose.
14. On 1 June 2017, in Order in Council P.C. 2017-0557 (the Order in Council), the Governor in Council referred Telecom Decision 2017-56 back to the Commission for reconsideration. The Governor in Council, among other things, expressed concerns regarding the choice of innovative and affordable mobile wireless services available to Canadians, particularly those with low household incomes. Specifically, the Governor in Council indicated that Canadians pay high rates for mobile wireless services, and that innovative business models and technological solutions can result in more meaningful choices for Canadian consumers, especially those with low incomes. Accordingly, the Governor in Council directed the Commission to reconsider its decision regarding the final tariffed wholesale roaming terms and conditions.⁹ A change to the decision would have allowed certain service providers¹⁰ to access the national wireless carriers' mandated wholesale roaming tariffs, on a limited basis, so that they could offer service outside their network footprints.
15. In Telecom Decision 2018-97, the Commission completed its reconsideration of Telecom Decision 2017-56, and concluded that its original decision would remain unchanged. However, when examining the affordability of mobile wireless services, the Commission noted that the evidence indicated that there was a gap in the retail market with respect to lower-cost data-only plans. The Commission therefore launched a proceeding in which it directed the national wireless carriers to file proposals for lower-cost data-only plans, with the intent of ensuring that such plans are broadly available to Canadians.
16. In Telecom Decision 2018-475, the Commission reviewed the national wireless carriers' lower-cost data-only plan proposals, and concluded that while they represented a step in the right direction toward improving lower-cost options for consumers, more needed to be done to improve competition, reduce barriers to entry, and address any concerns about affordability and service adoption in the mobile wireless service market.

⁹ Specifically, among other things, the Commission was directed to consider whether broadening the definition of "home network" to consider other forms of connectivity, such as Wi-Fi, would have a positive impact on the affordability of retail mobile wireless services to consumers in Canada.

¹⁰ In particular, Wi-Fi-first service providers offer mobile applications that use a combination of Wi-Fi and cellular networks to offer services including voice and text messaging. The applications consume mobile data only when the end-users are not connected to a Wi-Fi network.

Context

17. When the Commission established the current wholesale mobile wireless service regulatory framework in Telecom Regulatory Policy 2015-177, it determined that the framework would remain in place for a minimum of five years, to allow for the development of sustainable competition and to encourage continued innovation and investment in telecommunications facilities. In the time since the framework was established, the regulatory environment has changed. As discussed below, the Commission has had to intervene on several occasions to address competitive issues, settle disputes, address issues of choice and affordability, and fill market gaps.
18. At the same time, from a technological perspective, wireless networks in Canada have also evolved, as carriers continue to roll out long-term evolution (LTE) and LTE-advanced (LTE-A) networks,¹¹ contribute to the growth of the Internet of Things (IoT) market, and transition away from third-generation (3G) networks. Today, the mobile wireless service market is on the verge of a major transformation, since wireless carriers are poised to begin introducing 5G wireless technology into their networks. This technology upgrade will mean that wireless networks will become exponentially faster, more pervasive, and more versatile. With a predicted maximum throughput of 10 gigabits per second (Gbps), this technology will support innovative and bandwidth-intensive new services, including self-driving cars, smart cities, and a multitude of interconnected devices that form the IoT.
19. In order to begin introducing 5G technology, wireless carriers will be required to make significant investments in network infrastructure, and to negotiate with a variety of stakeholders to secure adequate access to fibre facilities, rights of way, and small-cell sites. It is therefore important to assess whether there are barriers to the introduction of new technologies by carriers, and the extent to which regulatory intervention by the Commission may be required to support investment and competition in the evolving marketplace.
20. The mobile wireless service industry has evolved since the Commission's last review of these services, due to, among other things, technological and market changes, and it will continue to evolve as carriers begin to introduce 5G networks.

Proceeding to review mobile wireless services

21. The Commission is hereby initiating a proceeding to review mobile wireless services in Canada. This proceeding will focus on three key areas:
 - Competition in the retail market
 - The current wholesale mobile wireless service regulatory framework, with a focus on wholesale MVNO access

¹¹ LTE and LTE-A are technically capable of reaching download speeds of 300 megabits per second and 1 gigabit per second, respectively.

- The future of mobile wireless services in Canada, with a focus on reducing barriers to infrastructure deployment
22. The scope of each of these issues is described in detail below. In addition, parties may raise other matters, issues, or proposals that are relevant to and appropriate for a broad policy review of mobile wireless services. The Commission's focus in this proceeding is to ensure that its mobile wireless service regulatory framework facilitates sustainable competition that provides reasonable prices and innovative services, as well as continued investment in high-quality mobile wireless networks in all regions of the country.

Competition in the retail market

23. In the proceeding that led to the current wholesale mobile wireless service regulatory framework, the Commission reviewed the state of the retail market. At that time, the Commission concluded that while market concentration was high, there was evidence of rivalrous behaviour among market participants, and that new entrants contributed to competitiveness in many regions. The Commission determined that the best way to support the overall health of the retail market was to strengthen competitors by ensuring that wholesale mobile wireless services were available under reasonable terms and conditions and at just and reasonable rates.
24. However, while competition has evolved in various regional markets over the past four years, at the national level, the national wireless carriers, together with their flanker brands, continue to hold the majority of the subscriber market share, at approximately 90%, with the remaining 10% divided among other wireless competitors.
25. Furthermore, in recent years, the Commission has found it necessary to intervene in the retail market because of concerns that this market may not be meeting the needs of Canadians. For example, the Commission has undertaken two proceedings concerning the creation and updating of the Wireless Code to address issues with, among other things, device locking, early termination fees, contract length, and data overage charges.¹² In addition, as discussed above, the Commission has intervened in the mobile wireless data-only market to ensure the availability of lower-cost offerings.
26. The Commission is concerned that the fact that (i) retail market concentration remains high (due in part to a series of acquisitions),¹³ and (ii) the Commission has been repeatedly required to intervene in the retail market, suggests that certain aspects of this market are not, in fact, sufficiently competitive in their current state to

¹² See Telecom Regulatory Policies 2013-271 and 2017-200.

¹³ Since 2015, RCCI has acquired Mobilicity, Shaw Communications Inc. has acquired WIND Mobile (now Freedom Mobile Inc.), and Bell Canada has acquired MTS Inc. (some assets, including some retail stores, subscribers, and spectrum, were divested to Xplornet Communications Inc.).

properly protect the interests of users and further the policy objectives set out in section 7 of the Act.

27. As a result, the Commission will include a review of the state of competition in the retail market in the scope of this proceeding. As part of this review, interveners will have the opportunity to make submissions regarding the definition of the retail market and whether the retail mobile wireless services currently offered by wireless carriers, including prepaid services and lower-cost data-only plans, are meeting the needs of Canadians and achieving the policy objectives of the Act.
28. Depending on the results of this review, the Commission will evaluate whether any changes to its mobile wireless service regulatory framework are required, which could include, for example, establishing new retail policies and imposing conditions of service. The review may also result in the Commission considering whether to reassert any previously forborne powers in order to apply any regulatory measures that are deemed appropriate. These could be in addition to any wholesale measures that may be required as a result of this proceeding.

The current wholesale mobile wireless service regulatory framework

Wholesale roaming

29. In Telecom Regulatory Policy 2015-177, the Commission determined that the national wireless carriers collectively possessed market power in the national market for wholesale roaming. It also found that wholesale network access to the national wireless carriers' networks was essential for their competitors to provide broad or national network coverage to their retail customers. The Commission determined that wholesale roaming access provided by the national wireless carriers was not subject to a level of competition sufficient to protect the interests of users, and that continued forbearance would be inconsistent with the policy objectives set out in section 7 of the Act. Accordingly, the Commission required the national wireless carriers to provide wholesale roaming access to competitors at mandated rates, terms, and conditions; however, there is no Commission requirement for the national wireless carriers to provide wholesale roaming access to each other.
30. Since those determinations were made, the Commission has completed the steps necessary to finalize the national wireless carriers' wholesale roaming tariffs. This included a process to establish the terms and conditions under which wholesale roaming is offered, and a costing exercise to set the rates for the service. The Commission approved the final wholesale roaming tariffs, including final rates, in Telecom Orders 2017-433 and 2018-99.
31. The availability of wholesale roaming at regulated rates, terms, and conditions has already had an important impact on facilities-based competitors. The rates set out in the associated tariffs enable competitors to access the national wireless carriers' networks at reasonable rates and provide them with cost certainty and flexibility as they expand their own networks; as a result, competitors are able to market service plans that include national roaming coverage to retail customers at competitive rates.

32. Given the relatively short time during which the final wholesale roaming tariffs have been in place, the benefit to competition that these tariffs provide, and the importance of providing regulatory certainty to stakeholders, the Commission considers that it is not necessary or appropriate to revisit whether wholesale roaming ought to continue to be mandated. Similarly, since this is a policy proceeding, the Commission will not be examining the rates associated with wholesale roaming.
33. However, as wireless technology develops and the market continues to evolve, there may be aspects of the Commission's existing wholesale roaming policy that may need to be modified or improved. Parties are therefore invited to provide comments on whether there is a need to make adjustments or improvements to the existing wholesale roaming policy.

Wholesale MVNO access

34. When the wholesale mobile wireless service regulatory framework was established, it was the Commission's expectation that wholesale regulation, including mandated wholesale roaming access, would encourage competitive entry and generally improve conditions in the downstream retail market. While the Commission found MVNO access service to be essential for competition (meaning that denying access to this service would likely result in a substantial lessening or prevention of competition in the downstream retail market), the Commission's goal was to enact wholesale regulation that would encourage the development of a mobile wireless service market characterized by a mix of facilities-based competitors and MVNOs, since strong facilities-based competition should naturally result in more opportunities for MVNO competition (for example, through the sale of excess network capacity).
35. In addition, one of the Commission's concerns, at that time, was the potential for mandated wholesale MVNO access to undermine network investment, particularly with respect to regional competitors' investments in spectrum and network facilities, and the general expansion of wireless networks, including to rural areas.
36. In this regard, since 2015, there have been positive signs with respect to investment, since facilities-based competitors, both national and regional, have continued to invest in their networks. These investments have resulted in the latest wireless service technologies being made available to the vast majority of Canadians, with LTE technology available to 98.5% of Canadians and LTE-A technology available to 83% of Canadians.
37. However, since that time, it has become increasingly clear that a mix of competitors has not developed to the degree that the Commission had expected in 2015. While facilities-based competitors have continued to expand their operations and reach, and while MVNO activity has increased in the machine-to-machine (M2M)/IoT markets,

based on filings to the Commission on MVNO arrangements,¹⁴ there has been virtually no MVNO activity that would provide additional competitive retail options to Canadian consumers.

38. Furthermore, within the last five years, the Commission has twice had to intervene in the mobile wireless service market to address disputes between a carrier and a potential MVNO when the prospective MVNO was unable to successfully negotiate an agreement with a wireless carrier, and instead sought to inappropriately use wholesale roaming as a means to enter the market.¹⁵ While the Commission ultimately determined that the use of wholesale roaming by MVNOs was inconsistent with its wholesale mobile service regulatory framework, these types of situations are, in the Commission's view, symptomatic of a larger problem – namely, that a sustainable retail MVNO market has failed to develop on its own.
39. In light of the above, it is the Commission's preliminary view that it would be appropriate to mandate that the national wireless carriers provide wholesale MVNO access as an outcome of this proceeding. The Commission considers that, on balance, it is likely that the benefits that a well-developed MVNO market would deliver to Canadians are now more likely to outweigh any negative impacts that a policy of mandated wholesale MVNO access might have on wireless carriers' network investments, particularly given the extensive investments that have been made in recent years. Further, properly structured rates, terms, and conditions should further mitigate potential negative impacts on future investments.
40. However, the Commission also continues to support the view that an appropriate mix of facilities-based and service-based competitors can and should exist in the market without specific regulation requiring their presence. In this regard, the Commission considers that while mandated wholesale MVNO access would be an effective means to stimulate the development of a retail MVNO market, as this market matures and MVNOs establish themselves, regulatory intervention should eventually give way to a market-based approach. Accordingly, the Commission's preliminary view is that the national wireless carriers' mandated wholesale MVNO access should be in place for a limited amount of time and be subject to a phase-out period as market forces take hold.
41. In this proceeding, the Commission invites parties to make submissions on its preliminary views. Parties should also, irrespective of their position on the preliminary views, put forward any positions they have with respect to how the Commission should define the parameters of a new mandated wholesale MVNO access service, including with respect to rate-setting policy.

¹⁴ As part of its ongoing monitoring process initiated in Telecom Regulatory Policy 2015-177, over the past four years, the Commission has collected data from wireless carriers about the state of the MVNO market. The most recent information was collected in 2018.

¹⁵ See Telecom Decisions 2017-57 and 2019-56.

The future of mobile wireless services in Canada

42. In the coming years, wireless carriers will begin to deploy 5G technology in their networks across the country. One of the first steps toward the introduction of 5G technology is the construction of the cellular network infrastructure that the technology requires. Going forward, carriers will continue to need to acquire and develop high-power cell sites where they can install radio equipment on ground-based masts, towers, rooftops, and other existing structures. Small cell¹⁶ deployment will require a change from the standard model of large macrocell sites delivering wireless signals over relatively long distances to also include numerous small-cell sites packed more densely together. Because small cells will be used in conjunction with high-frequency spectrum, which has limited propagation, a large number of small cells will be required to properly cover any given area.
43. Given the role that small cells will have in supporting next-generation services, it is clear that investment in these cells by wireless carriers will be of increasing importance in the coming years.
44. In order to successfully deploy small cells, a wireless carrier must, among other things, (i) negotiate with owners (e.g. municipalities) for access to passive infrastructure, (ii) negotiate with carriers (in the absence of a tariff) and hydro companies for access to poles, and (iii) build or acquire access to fibre-based transport sufficient to support the service.
45. These arrangements are complex, and could represent significant barriers to a wireless carrier wishing to invest in small-cell technology. Any wireless carrier that has some or all of these arrangements already in place, or has significantly more fibre available to it, would likely have an advantage over other carriers in terms of network deployment.
46. As a result, parties to this proceeding are invited to provide their views on whether any further regulatory measures, of those currently available to the Commission, are required to reduce barriers to the deployment of cellular infrastructure.

Issues not in the scope of the proceeding

47. Given the fact that it has been recently reviewed, the Wireless Code will not be considered during this proceeding. In addition, as discussed above, the principle of mandated wholesale roaming, as well as the rates for wholesale roaming, are out of scope; however, the Commission will be open to submissions proposing modifications to the parameters of the current wholesale roaming policy.

¹⁶ A small cell is a radio access point with low radio frequency power output, a small footprint, and short range. Small cells can be deployed indoors or outdoors, and in licensed, shared, or unlicensed spectrum. Small cells complement the macro network to improve coverage, add targeted capacity, and support new services. There are various types of small cells, with varying range, power, and size, according to use.

Call for comments

48. The Commission invites comments on the issues identified above. Specific questions are also outlined below. When responding, parties should include all necessary rationale and supporting evidence.
49. Following the release of this notice, parties will have the opportunity to propose requests for information to further the Commission's understanding of the relevant issues. These proposals, the requests for information, and the responses that are ultimately filed will form part of the record of this proceeding.
50. The Commission invites interveners to consider the following questions:

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 the prepaid and postpaid markets separately?
- b) What is the appropriate geographic market for the assessment 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?

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?

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.

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.

Q5. If the retail market, or a portion of it, is found to be insufficiently competitive to protect the interests of users,¹⁷ 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,¹⁸ are met?

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.

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.

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?

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.¹⁹ 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?
- c) whether it would be appropriate and/or feasible to establish different regulatory 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?

¹⁷ The Commission typically assesses market power according to the framework set out in Telecom Decision 94-19. When applying that framework, the Commission defines the relevant product and geographic markets, and examines various competitive factors within those markets, including market share of competitors, supply and demand conditions, barriers to entry, and evidence of rivalrous behaviour.

¹⁸ *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, P.C. 2006-1534, 14 December 2006

¹⁹ There are different types of MVNOs. A full MVNO owns all of its own facilities except for the RAN and local backhaul. Partial MVNOs vary in terms of the amount of facilities owned, and can range from carriers that own no facilities themselves (resellers) to carriers that own a significant amount of core network facilities.

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

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?

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?

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?

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 support network deployment, identify those services and demonstrate their essentiality in accordance with the Essentiality Test set out in Telecom Decision 2015-326.²⁰

²⁰ The Essentiality Test has three components that are used to determine essentiality: (i) is the facility required as an input by competitors to provide service in the relevant downstream market, (ii) is the facility controlled by a firm that possesses upstream market power such that denying (or withdrawing) access to the facility would likely result in a substantial lessening or prevention of competition in the relevant

- 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.

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.

Procedure

51. The *Canadian Radio-television and Telecommunications Commission Rules of Practice and Procedure* (the Rules of Procedure) apply to this proceeding. The Rules of Procedure set out, among other things, the rules for the content, format, filing, and service of interventions, answers, replies, and requests for information; the procedure for filing confidential information and requesting its disclosure; and the conduct of public hearings. Accordingly, the procedure set out below must be read in conjunction with the Rules of Procedure and related documents, which can be found on the Commission's website at www.crtc.gc.ca, under "[Statutes and regulations](#)." The guidelines set out in Broadcasting and Telecom Information Bulletin 2010-959 provide information to help interested persons and parties understand the Rules of Procedure so that they can more effectively participate in Commission proceedings.
52. In addition to the process outlined below, the Commission intends to employ additional methods of engaging Canadians as part of this proceeding to gather their views on the state of the mobile wireless service market, and whether their needs are being met. Details regarding the procedure for this aspect of the proceeding will be communicated at a later date.
53. The Commission will hold a public hearing, beginning on **13 January 2020 at 9:00 a.m.**, at **the Conference Centre, Phase IV, 140 Promenade du Portage in Gatineau, Quebec**. The hearing is expected to last no longer than ten days.
54. All Canadian carriers that provide mobile wireless services are made parties to this proceeding and may file interventions with the Commission by **15 May 2019**.
55. Interested persons who wish to become parties to this proceeding must file an intervention with the Commission regarding the above-noted issues by **15 May 2019**. The intervention must be filed in accordance with section 26 of the Rules of Procedure and must include one of the following statements in either the first or the last paragraph:
- i. I request to appear at the public hearing.
 - ii. I do not want to appear at the public hearing.

downstream market, and (iii) is it practical or feasible for competitors to duplicate the functionality of the facility?

56. Parties are permitted to coordinate, organize, and file, in a single submission, interventions by other interested persons who share their position but do not wish to appear at the hearing. Information on how to file this type of submission, known as a joint supporting intervention, as well as a [template](#) for the accompanying cover letter to be filed by parties, can be found in Telecom Information Bulletin 2011-693.
57. All documents required to be served on parties to the proceeding must be served using the contact information contained in the interventions.
58. Parties who wish to appear at the public hearing must provide reasons why their written intervention is not sufficient and why an appearance is necessary. In addition, parties requiring communications support must state their request for such support on the first page of their intervention.
59. Only those parties whose requests to appear have been granted will be contacted by the Commission and invited to appear at the hearing. An organization and conduct letter, providing directions on procedure with respect to the public hearing, will be issued before the hearing begins.
60. Although the public hearing will be held in **Gatineau, Quebec**, the Commission will consider providing videoconference or teleconference links should it receive requests to do so.
61. Persons requiring communications support, such as assistive listening devices and sign language interpretation, are to confirm with the Commission at least **90 days** before the commencement of the public hearing so that the necessary arrangements can be made.
62. As noted in paragraph 49 above, interveners that wish to request information from other parties may file their proposed questions with the Commission by **29 May 2019**. These proposed questions will be taken into account in the formulation of requests for information. Commission staff will issue, by letter, requests for information (which may include questions proposed by interveners) by **5 July 2019**. The applicable procedures and dates regarding responses will be set out in the letter.
63. All parties may file further comments with the Commission by **23 October 2019**.
64. Following the hearing, all parties who filed further comments may file final submissions with the Commission on any matter within the scope of this proceeding by **12 February 2020**. Final submissions, including an executive summary and appendices, are not to exceed 25 pages.
65. The Commission encourages interested persons and parties to monitor the record of this proceeding, available on the Commission's website at www.crtc.gc.ca, for additional information that they may find useful when preparing their submissions.
66. Submissions longer than five pages should include a summary. Each paragraph of all submissions should be numbered, and the line *****End of document***** should follow the last paragraph. This will help the Commission verify that the document has not been damaged during electronic transmission.

67. Pursuant to Broadcasting and Telecom Information Bulletin 2015-242, the Commission expects incorporated entities and associations, and encourages all Canadians, to file submissions for Commission proceedings in accessible formats (for example, text-based file formats that enable text to be enlarged or modified, or read by screen readers). To provide assistance in this regard, the Commission has posted on its website [guidelines](#) for preparing documents in accessible formats.
68. Submissions must be filed by sending them to the Secretary General of the Commission using **only one** of the following means:

by completing the
[\[Intervention form\]](#)

or

by mail to
CRTC, Ottawa, Ontario K1A 0N2

or

by fax to
819-994-0218

69. Parties who send documents electronically must ensure that they will be able to prove, upon Commission request, that filing/service of a particular document was completed. Accordingly, parties must keep proof of the sending and receipt of each document for 180 days after the date on which the document is filed. The Commission advises parties who file and serve documents by electronic means to exercise caution when using email for the service of documents, as it may be difficult to establish that service has occurred.
70. In accordance with the Rules of Procedure, a document must be received by the Commission and all relevant parties by 5 p.m. Vancouver time (8 p.m. Ottawa time) on the date it is due. Parties are responsible for ensuring the timely delivery of their submissions and will not be notified if their submissions are received after the deadline. Late submissions, including those due to postal delays, will not be considered by the Commission and will not be made part of the public record.
71. The Commission will not formally acknowledge submissions. It will, however, fully consider all submissions, which will form part of the public record of the proceeding, provided that the procedure for filing set out above has been followed.

Important notice

72. All information that parties provide as part of this public process, except information designated confidential, whether sent by postal mail, fax, email, or through the Commission's website at www.crtc.gc.ca, becomes part of a publicly accessible file and will be posted on the Commission's website. This includes all personal information, such as full names, email addresses, postal/street addresses, and telephone and fax numbers.

73. The personal information that parties provide will be used and may be disclosed for the purpose for which the information was obtained or compiled by the Commission, or for a use consistent with that purpose.
74. Documents received electronically or otherwise will be posted on the Commission's website in their entirety exactly as received, including any personal information contained therein, in the official language and format in which they are received. Documents not received electronically will be available in PDF format.
75. The information that parties provide to the Commission as part of this public process is entered into an unsearchable database dedicated to this specific public process. This database is accessible only from the web page of this particular public process. As a result, a general search of the Commission's website with the help of either its search engine or a third-party search engine will not provide access to the information that was provided as part of this public process.

Availability of documents

76. Electronic versions of the interventions and other documents referred to in this notice are available on the Commission's website at www.crtc.gc.ca by using the public record number provided at the beginning of this notice or by visiting the "Have your say!" section, then selecting "our open processes." Documents can then be accessed by clicking on the links in the "Subject" and "Related Documents" columns associated with this particular notice.
77. Documents are also available at the following address, upon request, during normal business hours:

Les Terrasses de la Chaudière
Central Building
1 Promenade du Portage
Gatineau, Quebec
J8X 4B1
Tel.: 819-997-2429
Fax: 819-994-0218

Toll-free telephone: 1-877-249-2782
Toll-free TTY: 1-877-909-2782

Secretary General

Related documents

- *TNW Wireless Inc. – Application for final relief regarding agreements for wholesale mobile wireless roaming services from Bell Mobility Inc. and TELUS Communications Inc.*, Telecom Decision CRTC 2019-56, 28 February 2019
- *Lower-cost data-only plans for mobile wireless services*, Telecom Decision CRTC 2018-475, 17 December 2018

- *Wholesale mobile wireless roaming service tariffs – Final rates*, Telecom Order CRTC 2018-99, 22 March 2018
- *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, Telecom Decision CRTC 2018-97, 22 March 2018
- *Follow-up to Telecom Decision 2017-56: Wholesale mobile wireless roaming service tariffs – Final terms and conditions*, Telecom Order CRTC 2017-433, 6 December 2017
- *Review of the Wireless Code*, Telecom Regulatory Policy CRTC 2017-200, 15 June 2017
- *Ice Wireless Inc. – Application regarding roaming on Rogers Communications Canada Inc.'s network by customers of Ice Wireless Inc. and Sugar Mobile Inc.*, Telecom Decision CRTC 2017-57, 1 March 2017
- *Wholesale mobile wireless roaming service tariffs – Final terms and conditions*, Telecom Decision CRTC 2017-56, 1 March 2017
- *Modern telecommunications services – The path forward for Canada's digital economy*, Telecom Regulatory Policy CRTC 2016-496, 21 December 2016
- *Review of wholesale wireline services and associated policies*, Telecom Regulatory Policy CRTC 2015-326, 22 July 2015; as amended by Telecom Regulatory Policy CRTC 2015-326-1, 9 October 2015
- *Filing submissions for Commission proceedings in accessible formats*, Broadcasting and Telecom Information Bulletin CRTC 2015-242, 8 June 2015
- *Regulatory framework for wholesale mobile wireless services*, Telecom Regulatory Policy CRTC 2015-177, 5 May 2015
- *The Wireless Code*, Telecom Regulatory Policy CRTC 2013-271, 3 June 2013
- *Decision on whether the conditions in the mobile wireless market have changed sufficiently to warrant Commission intervention with respect to mobile wireless services*, Telecom Decision CRTC 2012-556, 11 October 2012
- *Filing of joint supporting interventions*, Telecom Information Bulletin CRTC 2011-693, 8 November 2011
- *Guidelines on the CRTC Rules of Practice and Procedure*, Broadcasting and Telecom Information Bulletin CRTC 2010-959, 23 December 2010
- *Review of regulatory framework*, Telecom Decision CRTC 94-19, 16 September 1994