Second Intervention of Shaw Cablesystems G.P.

Review of wholesale services and associated policies

Telecom Notice of Consultation CRTC 2013-551

June 27, 2014

I. INTRODUCTION & EXECUTIVE SUMMARY

1. This second intervention of Shaw Cablesystems G.P. (**Shaw**) is filed pursuant to Telecom Notice of Consultation CRTC 2013-551, *Review of wholesale services and associated policies,* 15 October 2013 (the **Notice**).[1]

2. In response to the rapidly evolving needs of our customers in today's dynamic competitive environment, Shaw has transformed itself from a traditional cable provider into a customer-centric network and content experience company. This strategic pivot has driven Shaw to become a leader in broadband investment and customer-friendly innovation. By necessity, we continually seek to enhance the value of the broadband experience for our 1.9 million Internet customers. In today's intensely competitive retail services market, Shaw's success depends more than ever on strong customer relationships and our ability to provide value, innovation, choice and flexibility in our service offerings.

3. The digital revolution has created a seamless market that includes fixed, nomadic and mobile services, sparking new opportunities to enhance the customer's experience. Customer demand for a high quality, reliable experience is growing at an unabated pace. At the same time, our customers enjoy numerous options provided by other facilities-based carriers like the ILECs and wireless carriers, as well as independent competitors offering services over leased wholesale access facilities.

4. The digital revolution has also spurred explosive growth in broadband usage. A recent report from Cisco predicts that global Internet traffic will increase nearly three-fold – reaching 1.6 Zettabytes – over the next five years due to more

[1] As revised by Telecom Notice of Consultation CRTC 2013-551-1.

Internet users and devices, faster broadband speeds and more video viewing.[2] The projected traffic for 2018 will be greater than all Internet traffic that has been generated globally from 1984 to 2013. The same report predicts that in Canada, wireline broadband traffic alone will grow two-fold from 2013 to 2018.[3]

5. The Western Canadian broadband markets within which Shaw operates are characterized by high levels of capital investment and broadband adoption, due to fierce rivalry between facilities-based carriers, as illustrated by the January 2014 report prepared by Lemay-Yates Associates Inc. (**LYA**, with such report the **LYA January Report**), which accompanied Shaw's first intervention. A second report by LYA, which is being filed with this intervention (the **LYA June Report**), shows that Canadian carriers, and Shaw in particular, invest at much higher levels than those in many other countries.

6. The intense levels of investment and competition in Canada, and in Shaw's retail markets in particular, result in exceptional value for our customers. Competing carriers develop innovative new products in order to attract new customers, as well as meet existing customers' expectations of a high quality, always-available and seamless experience. Shaw has innovated by developing and offering Shaw Go WiFi, which provides our customers with nomadic Internet access over any WiFi-enabled device, thereby extending our network and adding value to our customers' broadband services. With over 1 million devices registered to the service, which can be accessed at more than 40,000 locations, Shaw Go WiFi offers a compelling, cost-effective and customer-friendly alternative to wireless data packages. Shaw Go WiFi is an excellent example of how competitive market forces drive carriers to respond to consumer demands through innovation and

[2] Market Watch, "Cisco Visual Networking Index Predicts Global IP Traffic to Grow Nearly Three-Fold (Reaching 1.6 Zettabytes) by 2018," online: http://www.marketwatch.com/story/cisco-visual-networking-index-predicts-global-ip-traffic-to-grow-nearly-three-fold-reaching-16-zettabytes-by-2018-2014-06-10, accessed 18 June 2014.
[3] *Ibid.*

investment, which leads to yet further competition in the marketplace and, ultimately, enhanced benefits for consumers.

7. As noted in our first intervention in this proceeding, the current framework was established by the Commission in 2008 as a response to the Government in Council's *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives* (the **Policy Direction**).[4] At the heart of the Policy Direction is the requirement for maximum reliance on market forces, as well as competitive and technological neutrality. The Government directed the Commission to

    (i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives (the **Policy Objectives**),[5]

    (ii) when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the Policy Objectives, and

    (iii) ensure the technological and competitive neutrality of arrangements or regimes for access to networks.

Accordingly, the Commission introduced and applied an essential facilities test (the **Essential Facilities Test**) for determining whether regulation is necessary. The test focuses on protecting consumers and businesses in the downstream retail market by asking whether the withdrawal or denial of mandated access to a

[4] SOR/2006-355.
[5] The Policy Objectives are set forth in section 7 of the *Telecommunications Act*.

wholesale service would result in the undue lessening or prevention of competition in the downstream market for services.

8. We encourage the Commission to take into account the vibrant health of Canadian broadband competition and investment, and the associated benefits to Canadian consumers, as it reviews wireline wholesale regulation. The wholesale regulatory framework must place Canadian consumers at its core, by relying on market forces to the maximum extent possible and regulating only where necessary to ensure that Canadians benefit from investment, innovation and choice. In order for competition to continue to flourish, the wholesale regulatory framework must also be stable and predictable. This must include a consistent approach to evaluating carriers' actual costs in the tariff process – one that supports, rather than disrupts, market forces, including investment decisions that are made as part of, and driven by, those forces.

9. With these guiding principles in mind, the Commission should endeavour to avoid unnecessary, disruptive intervention in the marketplace that could have a negative impact on long-term planning for capital expenditure that is critical for the communications industry to respond to the rapidly evolving needs of Canadians. In sum, the Commission must, therefore, seek to limit the scope of the regulatory framework to instances where there is a demonstrated need to protect the interests of customers in the relevant market.

10. The Commission's Essential Facilities Test is consistent with the Policy Direction and remains appropriate: by focusing on competitive effects and market power in the downstream market, it places the emphasis on protecting the interests of consumers, rather than the interests of incumbents or entrant competitors.

11. With respect to the relevant product markets, the Commission must now take into account the fact that wireless voice and broadband services are increasingly substitutes for residential wireline services. Shaw itself must consider the wireless services in our market when we design our offerings.

12. In light of these and other changes in the telecommunications market in recent years, including network expansion by various carriers, the creation of innovative service offerings, and an increasingly competitive landscape, it is especially important that currently mandated services be rigorously reviewed against the Essential Facilities Test at this time. At this point in the proceeding, there are two services that Shaw believes should be re-classified. Billing and Collection services (currently classified as Interconnection) should be reclassified as Non-Essential and Subject to Phase-Out. Third Party Internet Access (**TPIA**) should be re-classified from Conditional Mandated Non-Essential to Non-Essential Subject to Phase-out, subject to a reasonable phase-out period that reflects the competitive market dynamic.[6]

13. With two virtually ubiquitous facilities-based wireline providers, as well as mobile wireless, fixed wireless and satellite options, there are myriad voice and Internet service offerings for residential customers to choose from in most regions in Canada. In the Internet market there is vigorous retail competition between ILECs and cable carriers, each of which has entered the traditional market of the other. Given these facts and the emerging reality of increasing wireless substitution, there is no credible basis for concluding that Shaw has market power such that withdrawing mandated access to TPIA would likely result in a

[6] Based on the bedrock principle of competitive and technological neutrality, drawn from the Policy Direction, Shaw is of the view that all comparable Wholesale High-Speed Access Services provided by incumbents in a market be treated equally.

lessening or prevention of competition in the market for retail high-speed Internet access (**HSA**) services.

14. Shaw is of the view that the Essential Facilities Test must also be applied rigorously and in a technologically-neutral manner to all new HSA technologies, including Fibre-to-the-premises (**FTTP**). New HSA technologies being deployed in the intensely competitive market in which Shaw operates do not meet the Essential Facilities Test, and mandated access to them would constitute inefficient regulation. Moreover, to ensure a technically and competitively neutral application of the regime, any functionally equivalent service provided by another incumbent (e.g. a service offering equivalent speeds) should be treated equally in terms of whether it is, or continues to be, mandated.

15. Shaw has reviewed CNOC's broad and multifaceted proposal that Canada adopt an "Equivalency of Inputs" (**EOI**) regime. In Shaw's view, this EOI proposal is a dramatic, highly disruptive and very complex solution in search of a problem that does not exist in Canada. The Canadian retail Internet market is intensely competitive, featuring multiple facilities-based platforms, high levels of capital investment and constant innovation that enhances value for consumers. These are not the characteristics of a market in need of broad, radical, structural reform.

16. EOI is inappropriate in the context of the Canadian telecommunications industry – where we have come from, where we are now, and where we are going. Unlike Canada, where cable carriers like Shaw have initiated and driven broadband investment to compete with ILECs, in many of the countries where EOI has been implemented, there was no true wireline alternative (i.e., with comparable infrastructure) to the ILEC.

17. Finally, for those services that remain subject to rate regulation following this review, the current Phase II costing approach remains, at least in philosophy and intent, appropriate. However, the costing approach should not be applied in a manner that is designed to facilitate a specific business model for entry. This interferes with investment decisions and promotes inefficient entry by competitors, contrary to the Policy Direction. Rates should be based on a carrier's own long-run incremental costs, and not the costs of other carriers. This approach would confirm carriers' reasonable expectations that they will be able to recover their costs, together with a reasonable return on their investment, and send the correct economic signals to the marketplace to encourage continued network investment and innovation for the benefit of all Canadians.

18. In this second intervention, Shaw will discuss certain issues raised in the Notice and the first interventions of other participants that Shaw believes require addressing at this juncture.[7] However, Shaw reserves its right to fully reply to the interventions of other participants in its reply submissions due later in the proceeding. Furthermore, failure by Shaw to address a specific position taken by another intervener should not be interpreted as agreement with that position.

II. APPROPRIATENESS OF THE EXISTING WHOLESALE SERVICES FRAMEWORK – DEFINITION OF ESSENTIAL FACILITIES

19. In conducting its review of the wholesale market, the Commission must be wary of introducing or extending regulation that supplants or interferes with the ability of carriers to invest in their networks and develop innovative services in order to meet the evolving needs of their customers, as Shaw is doing. The Commission should endeavour to strike an appropriate balance between enhancing

[7] In accordance with the Notice, Shaw has structured its submissions according to the topics and questions identified in Appendix 1 to the Notice, albeit not precisely in the same order as set out therein.

competition and maintaining the appropriate incentives for facilities-based carriers to continue to innovate and invest in their networks for the benefit of consumers.

20. The Commission's Essential Facilities Test[8] – a three-part test derived from competition law principles – is consistent with the Policy Direction and remains appropriate in today's market. It correctly focuses on competitive effects and market power in the downstream market, placing emphasis on protecting the interests of consumers, rather than the interests of incumbents or entrant competitors. Maintaining the existing definition will provide the regulatory stability and predictability that promotes investment and competition within the marketplace. Applying the test in a flexible manner will allow the Commission to take into account market conditions that might justify forbearance.

21. We note that CNOC has suggested that the test be amended by replacing the words "withdrawing or denying" with "not providing" and "feasible" with "economically efficient". In Shaw's view, these proposed changes to the test are unwarranted, and CNOC has failed to provide adequate justification for why the existing language should be changed. A change should only be made to the definition where a participant can demonstrate that it is required in order to meet the criteria set out above – to address instances where market forces fail to

[8] The Commission determined "that to be essential, a facility, function or service must satisfy all of the following conditions:

i. The facility is required as an input by competitors to provide telecommunications services in a relevant downstream market;

ii. The facility is controlled by a firm that possesses upstream market power such that withdrawing mandated [or denying] access to the facility would likely result in a substantial lessening or prevention of competition in the relevant downstream market; and

iii. It is not practical or feasible for competitors to duplicate the functionality of the facility."

Decision 2008-17, paragraph 36.

operate for the benefit of the consumer. Neither of the changes proposed by CNOC meets this important threshold.

22. It should also be noted that replacing the word "feasible" with "economically efficient" is not only unnecessary, but will narrow and change the meaning of the test developed and applied by the Commission over the last six years. In Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service* (**TD 2008-17**),[9] the Commission adopted language proposed by the Competition Bureau itself:

> In terms of suitable phrasing for this condition, the Commission considers the Bureau's wording to be appropriate: "it is not practical or feasible for competitors to duplicate the facility in question." This phrasing is technologically and competitively neutral and is sufficient to properly consider all impediments faced by competitors.[10]

23. CNOC has also suggested that ILEC and cable carriers be required to file wholesale access tariffs for any new retail service introduced. This proposal presupposes that all retail services include components that would meet the Essential Facilities Test. It is also contrary to the Policy Direction, and would necessitate broad re-regulation by the Commission, as discussed below.

III. RELEVANT PRODUCT MARKET

24. As Shaw submitted in its first intervention, with respect to the relevant product markets, the Commission must now take into account the fact that wireless voice and broadband services (both terrestrial and satellite-based) are increasingly substitutes for residential wireline services. Shaw itself must remain conscious of wireless offerings in the market when pricing its voice and data (i.e., broadband)

[9] 3 March 2008.
[10] Paragraph 34.

services. In addition, while Shaw does not have direct evidence of the number of "wireless only" households (because it does not offer wireless services independently of its wireline services), the evidence submitted by the mobile wireless carriers in this proceeding demonstrates both the functional interchangeability of the services, as well as an increasing level of wireless substitution.

25. At the time of its Telecom Regulatory Policy CRTC 2010-632, *Wholesale high-speed access services proceeding*,[11] the Commission found that retail Internet services provisioned using wireless and satellite generally remained complements to, and not substitutes for, retail Internet services provisioned using wireline facilities. It predicted, however, that as technologies and retail service markets evolved, retail Internet services provisioned using wireless and satellite facilities would likely become substitutes for those provisioned using wireline facilities. They have. With the deployment of high-speed wireless technologies like LTE and HSPA+ and the proliferation of smartphones and tablets, wireless broadband services have become substitutes for broadband services delivered over wireline cable and telecom carriers' facilities. The deployment of the 700 MHz spectrum recently auctioned by Industry Canada and the 2500 MHz spectrum which will be auctioned in 2015 will further enhance the quality, reach and penetration of wireless services, and accelerate their substitution for wireline services.

26. The higher cost of wireless services has historically been viewed as a barrier to their substitutability. That paradigm has evaporated over the last few years. Rogers' first intervention highlighted the declining cost of mobile data in recent years: the cost of a 5 GB data plan has decreased by over 40% in the past four

[11] 30 August 2010.

years,[12] making it a more affordable alternative to wireline broadband. Rogers also cited studies from Europe and the U.S. that track consumption patterns, providing evidence of buyers switching from fixed to mobile internet.[13]

27. The availability of wireless substitutes, too, has grown. In its first intervention, Bell stated that it is currently capable of providing LTE to 80% of Canadians and has plans to reach 98% of Canadians.[14] For the small number of Canadians that terrestrial wireless networks will not reach, Xplornet has rolled out its 4G Satellite Network, which it characterizes as a "game-changer in terms of ubiquitous broadband access in Canada," providing broadband connectivity that is "truly fast and affordable."[15]

28. Bell also observed that at the end of 2013, the number of Canadian households in its territory that were "wireless only" for voice had reached 21%, up from only 3% in 2004.[16] This rise in "wireless only" households has met with a corresponding decline in wireline households.[17] The migration to "wireless only" voice service was acknowledged by the Commission in 2011, when it recognized mobile wireless as a substitute for wireline voice in forborne local exchanges, and has since become increasingly common as the cost of wireless voice service declines and the quality of service improves.[18] As voice and data services are often bundled together in both wireless and wireline packages, this substitution will spread to data services as well.

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[12] Intervention of Rogers to TNC CRTC 2013-551, paragraph 150.
[13] *Ibid.,* paragraph 152.
[14] Intervention of Bell Canada to TNC CRTC 2013-551 at paragraph 145.
[15] Xplornet, "Countdown to Rural Transformation Has Started," Press Release dated 21 September 2011, online: http://www.xplornet.com/about-us/news-releases/2011/countdown-to-rural-transformation-has-started/ accessed 24 June 2014.
[16] *Ibid.,* paragraph 10.
[17] Canadian Radio-television and Telecommunications Commission, *2013 Communications Monitoring Report,* page 25.
[18] Telecom Regulatory Policy CRTC 2011-291, *Obligation to serve and other matters*, 3 May 2011.

29. As the Competition Bureau states in its *Merger Enforcement Guidelines*, "the Bureau examines what buyers have done in the past *and what they are likely to do in the future* as options become available, for instance, through advances in technology"[19] (emphasis added). Similarly, the Bureau's *Abuse of Dominance Provisions* indicate that the Bureau will examine whether buyers plan to substitute between products in the future, and will also consider potential future developments in the industry with respect to products that are alleged to provide a significant constraining influence.[20] The Commission should similarly take into account likely future behaviour of consumers, such as the inevitability of a continuing increase in "wireless only" households as technology advances and greater speed and throughput, together with declining prices, become reality. This potential for substitution by its customer base in the future clearly constrains a firm's ability to exercise market power in the present.

30. It is clear that mobile and satellite broadband are no longer simply complements to wireline in their respective markets, they are substitutes, and will continue to exercise increasing constraints in the market. This should be reflected in the product market definition.

IV. SERVICE CATEGORIES AND CLASSIFICATION OF MANDATED WHOLESALE SERVICES

31. Shaw does not propose any changes to the current classification categories or re-regulation of forborne services. In particular, the "Essential", "Conditional Essential", "Conditional Mandated Non-Essential", "Public Good", "Interconnection", and "Non-Essential Subject to Phase Out" categories remain appropriate and provide the flexibility needed in a dynamic market. Preserving

[19] Competition Bureau of Canada, *Merger Enforcement Guidelines*, 6 October 2011, paragraph 4.13.
[20] Competition Bureau of Canada, *Abuse of Dominance Provisions,* 20 September 2012, paragraph 2.1.

these categories will provide the market with the stability and predictability desired by investors.

32. CNOC's proposed single "Essential Services" category does not reflect the distinct nature of the services in many categories. For example, contrary to CNOC's assertion, services such as Emergency 9-1-1 Services and Message Relay Services may not necessarily meet the Essential Facilities Test, but should nevertheless continue to be mandated in order to guarantee a robust communications network in Canada. These services carry important social benefits that necessitate the continuation of a distinct "Public Good" category.

33. In light of changes in the telecommunications market in recent years, including network expansion by various carriers, the creation of innovative service offerings, and an increasingly competitive landscape, Shaw supports a targeted, streamlined review of currently mandated "Essential", "Conditional Essential" and "Conditional Mandated Non-essential" services at this time. At this point in the proceeding, there are two services that Shaw believes should be re-classified – Billing and Collection services and TPIA.

34. Shaw supports recommendations that it would be appropriate to reclassify Billing and Collection services (currently classified as Interconnection) as Non-Essential and Subject to Phase-Out. LECs should have the flexibility to choose whether to complete billing on behalf of a third party, rather than be required to do so. Casual calling providers have the option of using alternate billing methods, such as credit cards, on-line account set-up, etc., to collect payment for their services. There is no need for billing for these services to be included in a LEC's invoices absent a mutually acceptable commercial arrangement. Removing Billing & Collection as a mandated service will reduce customer confusion and allow

parties to enter into competitive arrangements with alternative service providers via negotiated agreements.

35. Given the current market conditions, including the levels of investment, service innovation and competition in the broadband market, and increasing levels of substitution of wireless services for wireline, Shaw also believes TPIA should be re-classified from Conditional Mandated Non-Essential to Non-Essential Subject to Phase-out.

36. With two virtually ubiquitous facilities-based wireline providers, as well as mobile wireless, fixed wireless and satellite options, there are myriad voice and Internet service offerings for residential customers to choose from in most regions in Canada. As detailed in our first intervention and above, in the residential market there is vigorous retail competition between ILECs and cable carriers, each of which has entered the traditional market of the other provider.

37. Given these facts and the emerging reality of increasing wireless substitution, there is no credible basis for concluding that Shaw has market power such that withdrawing mandated access to TPIA would likely result in a lessening or prevention of competition in the market for retail HSA services. At the very least, therefore, TPIA does not meet the second part of the Essential Facilities Test. Shaw proposes a phase-out period that reflects the competitive market dynamic.

38. The Commission should adopt the same reasoned approach to phase-out periods that it did in TD 2008-17. In that decision, the Commission indicated that a phase-out period of three years from the decision date would be sufficient for most non-essential services subject to phase-out, but noted that certain factors – such as costs of construction relative to service revenue and the need to obtain municipal approvals and negotiate agreements – would militate in favour of a

five-year phase-out period in appropriate circumstances.[21] Consequently, CDN services, network-to-network interface and Ethernet access were subject to a five-year phase-out period, while all other services were phased out over a three-year period.

39. In the case of access to TPIA and other WHSA services, the Commission must be mindful of the need to ensure ongoing competitive and technological neutrality, by aligning all aspects – including any phase-out period – of the regime applicable to incumbent facilities of ILECs and Cable carriers alike. For example, the wholesale service of one carrier cannot continue to be mandated where the functionally equivalent service offered by the other incumbent carrier (e.g., a service offering equivalent speeds) is free from mandated access due to the specific technology being deployed.

40. By way of contrast to the Internet market, in the business market for voice services there is still only one ubiquitous network, controlled by the ILEC, and more time is needed for viable network alternatives to develop in that market. Shaw has made significant network investments in an effort to reach business locations, but continues to rely on facilities leased from ILECs in order to serve businesses not located in buildings connected to Shaw's network or businesses located in multiple geographic regions. In order to ease Shaw's reliance on the ILECs' infrastructure, we continue to build our own facilities where we can achieve sufficient economies of scale to make such investments; nevertheless, the availability of leased access facilities remains critical to competition, particularly in the business voice market, where market forces alone cannot be relied upon to ensure competitive options for business consumers. Access to business locations continues to pose significant operational and economic

[21] Telecom Decision CRTC 2008-17, paragraph 156.

barriers to ubiquitous deployment of voice network facilities for the benefit of business customers. Accordingly, classification of these low-speed CDN DS-0 and DS-1 facilities as Conditional Essential and mandated access remain appropriate in the business voice market.

41. Shaw further submits that no new services meet the Essential Facilities Test. The Commission should be wary of mandating the provision of new wholesale services, particularly innovative and unique services that allow a network provider to differentiate its services from those of its competitors, expanding the choices available to consumers. To the extent such new wholesale services do not represent core access services, and are duplicable, mandating them is not supported by the wholesale framework, the Policy Direction or the Policy Objectives, and would only interfere with market forces and the development of new and innovative services.

V. NEW WHOLESALE HSA SERVICES

42. As discussed in Shaw's first intervention, the Policy Direction and the Essential Facilities Test continue to provide the Commission with the appropriate tools to determine the proper treatment of new HSA technologies, including the FTTP facilities identified in the Notice, on a case-by-case basis. It is imperative that the Essential Facilities Test be applied rigorously and in a technologically-neutral manner, consistent with the Policy Direction, to these new technologies. We are of the view that new HSA technologies being deployed in the intensely competitive market in which Shaw operates do not meet the Essential Facilities Test and therefore should not be mandated by the Commission. Moreover, to ensure a technically and competitively neutral application of the regime, any functionally equivalent service provided by another incumbent (e.g., a service

offering equivalent speeds) should be treated equally in terms of whether it is, or continues to be, mandated.

43. For example, FTTP networks are being deployed extensively by the ILECs in response to competition from cable carriers; in turn, cable carriers continue to deploy fibre deeper into their networks in order to provide faster speeds and a better network experience. This rivalrous competition between facilities-based carriers results in consumer choice, rate discipline and innovative service offerings in Canada. Furthermore, this intermodal competition provides Canadian carriers with their primary incentive to continue to invest and innovate. Mandated access would interfere with the competitive process, decisions regarding the allocation of capital, and investment incentives. This could curb, or create an imbalance in, competitive rivalry and lead to less competition, less (or different) investments, and less innovation, thereby having precisely the opposite effect of that desired by the Commission in the context of this proceeding.

44. As outlined in the LYA June Report, Canada compares very favourably to a number of our most significant trading partners across a range of benchmark metrics applicable to broadband networks and services. It is clear that the interests of Canadian consumers are being well protected by the existing competitive dynamic. This robust HSA market does not warrant intervention, which raises the risk of stimulating artificial competition from economically inefficient entrants. While such entry might support the business models of certain competitors, it is unlikely to benefit Canadian consumers, who, the evidence demonstrates, are well served by the rivalry, investments and innovations in the market.

45. Furthermore, diverting resources to the unbundling of network options (even if technically feasible) will be disruptive and slow the current rapid pace of

investment and innovation in the Canadian marketplace. Moreover, given the significant differences between how different incumbent carriers may choose to deploy new technologies in their networks, any wholesale solution would need to be specifically tailored for each carrier while at the same time respect the principles of technological and competitive neutrality. This would create a patchwork of wholesale models and practices. This complexity would also hinder carriers' responsiveness to sudden changes in technology, as they would need to continuously maintain wholesale access in a converged network environment.

VI. WHOLESALE SERVICES FRAMEWORK – INAPPROPRIATNESS OF EQUIVALENCE OF INPUTS REGIME

46. In its first intervention, CNOC calls for wholesale regulation based on an EOI regime that would require incumbent carriers to offer the same service on a wholesale basis to third party competitors as it does to its own retail operations, characterized by equal service offerings, timescales, terms and conditions, use of systems and processes, and the provision of commercial information. CNOC cites as examples of the success of EOI a number of countries that have implemented some form of EOI with varying degrees of success, as described in the report prepared by Nordicity entitled "Implementing an Equivalence of Inputs Regime in Canada's Telecommunications Market" (the **Nordicity Report**).

47. EOI is a dramatic, highly disruptive and very complex solution in search of a problem that does not exist in Canada. As outlined above and in Shaw's initial intervention, the Canadian retail Internet market is intensely competitive, featuring multiple facilities-based platforms, high levels of capital investment, and constant innovation that enhances value for consumers. These are not the characteristics of a market in need of broad, radical, structural reform.

48. EOI is inappropriate in the context of the Canadian telecommunications industry – where we have come from, where we are now, and where we are going. The Nordicity Report focuses on countries that took drastic regulatory action in response to national markets dominated by single telco monopolies, which in most cases were formerly state-owned or controlled. Unlike in Canada, where cable carriers like Shaw have initiated and driven broadband investment to compete with ILECs, in most of the countries discussed in the Nordicity Report, there was no wireline alternative to the ILEC with comparable infrastructure (for example, cable infrastructure was non-existent or insignificant). Perhaps as a result, there was widespread discrimination and low levels of network investment and broadband penetration. As LYA observes, "With no substantial presence of an alternative facilities-based provider, i.e., cable, the only means to stimulate competition is to ensure that resellers have greater access to incumbent telco facilities."[22]

49. In the United Kingdom, for example, British Telecom was the incumbent with upstream market power, which had been found to have engaged in anti-competitive behaviour on various occasions, prompting the competition authority to step in and propose a break-up. Similarly, in New Zealand, Telecom NZ was a stated-owned monopoly until 1989, and its monopoly status continued well into the 2000s. In 2006, New Zealand's Commerce Commission conducted a review of the telecommunications regime that exposed various problems, including limited competition and insufficient incentives to innovate. In both markets, serious, structural problems existed that required radical corrective action.

[22] LYA June Report, page 2.

50. These problems do not exist in Canada. The Canadian wireline market is characterized by robust competition and high levels of capital investment, as documented in the LYA January Report. As detailed in the LYA June Report, the level of capital intensity in Canada's broadband market exceeds that of the U.S. market, as well as the markets of the countries recognized by CNOC for their success with EOI.[23]

51. Canada's high rates of broadband penetration and availability are also markers of a competitive market that is responsive to the rapidly evolving needs of Canadian consumers for broadband, which is critical given the explosive growth in Internet traffic that is predicted over the next five years.[24] As illustrated in the LYA June Report, Canada has very high levels of broadband penetration compared to those countries surveyed in the Nordicity Report, second only to Sweden, where high broadband penetration is the result of significant direct investment and subsidies for fibre-to-the-home made by municipalities.[25] This is consistent with the low capital intensity metric for wireline investment reported by the Swedish regulator.[26] Thus, it is not the carriers making the "last mile" investment and network build-out in Sweden. The LYA June Report also concludes that Canada has among the highest rates of broadband coverage of the countries surveyed, both in terms of basic fixed broadband and next generation access, nationally and in rural areas, which, given Canada's geographic scale, is remarkable. Broadband availability in the U.S. is also high relative to those countries that have instituted EOI policies.[27] The high level of broadband coverage in both Canada

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[23] *Ibid.,* pages 6-7.
[24] Cisco, "VNI Forecast Highlights 2013-2018," online: http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html, accessed 25 June 2014.
[25] LYA June Report, page 9.
[26] *Ibid*.
[27] *Ibid.* at pages 8-9.

and the U.S. can largely be attributed to the existence of competing broadband platforms – those of cable carriers and the ILECs.

52. The Nordicity Report fails to account for the existence of multiple competing broadband platforms when it contrasts the outcomes of EOI in other countries with Canadian outcomes. The authors point out that following functional separation in Britain, the incumbents' share of DSL connections fell to 46% in 2012 from 69% in 2007.[28] They compare this to Canada, where ILECs hold 77% of all ADSL broadband connections.[29] However, they neglect to mention a far more significant metric – in 2012, DSL connections comprised only 40% of the business and retail Internet connections in Canada.[30] Disclosing only the ILECs' share of ADSL broadband connections ignores the fact that Canada has already achieved high levels of intermodal competition.

53. EOI offends the bedrock principles underlying the Policy Direction, which requires maximum reliance on market forces and regulatory measures, where used, that are efficient and proportionate to their purpose. The call for management incentives that are "decoupled from concerns for the overall profitability of the parent entity"[31] demonstrate the inefficiencies inherent in this drastic and costly type of regulatory intervention. Any implementation of EOI would require the Commission and industry to devote intense resources to this expensive, extremely complex, and time-consuming process. As noted in the Nordicity Report, New Zealand's transition to EOI and functional separation was fraught with cost and implementation difficulties. The cost of migrating legacy services

[28] Nordicity Report, paragraph 70.
[29] *Ibid.,* paragraph 71.
[30] Canadian Radio-television and Telecommunications Commission, *2013 Communications Monitoring Report,* page 152.
[31] Nordicity Report, paragraph 44.

to the EOI system were greater than anticipated.[32] Telecom NZ's original undertakings were varied a number of times to resolve such difficulties.[33]

54. Finally, the efficacy of EOI is also dubious, as discussed in the LYA June Report. As mentioned above, wireline capex intensity in each of the U.K., New Zealand, Ireland, Sweden and France is below the Canadian average. Canada outranks many of those countries in terms of broadband availability and penetration.

55. It is clear that, in Canada, an EOI regime would serve only to protect and expand the business model of reseller ISPs without offering any real benefits to Canadian consumers. The implementation of EOI in Canada is unwarranted and should be rejected by the Commission.

VII. PRICING - COSTING PROPOSALS

56. CNOC and Primus have proposed significant changes to the current Phase II costing model, which would make Phase II costing more burdensome, time-consuming and costly for companies to complete. Their proposed measures are neither efficient nor proportionate to their purpose, as required by the Policy Direction. There is no demonstrated benefit to consumers that would follow from these proposed changes.

57. In order to minimize the distortive impact of wholesale regulation, the costing and tariff process requires stability and predictability. This will enhance the certainty of the operational environment, sending the correct economic signals and providing the appropriate incentives for investment, innovation and efficient entry, so that the industry can respond to the needs and demands of consumers. With these objectives in mind, it is Shaw's view that the current Phase II costing

[32] *Ibid.,* paragraph 80.
[33] *Ibid.*

approach remains, in philosophy and intent, appropriate for those wholesale services that continue to be mandated.

58. The Commission developed the Phase II costing approach to capture all prospective incremental costs incurred by a carrier in the provision of a service. A mark-up is then applied to contribute to the carrier's fixed and common costs that are not included in the costing approach, to allow for full recovery of a carrier's costs. If consistently applied, this approach can ensure the development of just and reasonable rates as required by the *Telecommunications Act.*

59. In recent years, however, the Phase II costing approach has not been applied consistently, which is problematic. For example, adjustments that were made to Shaw's costs (in Telecom Regulatory Policy CRTC 2011-703, *Billing practices for wholesale residential high-speed access services* (**TRP 2011-703**))[34] appear to have been designed to facilitate a specific entry model. Shaw submits that when the Commission disregards a carrier's actual costs to provide the service, such as it did with respect to Shaw's Carrier Services Group (CSG) cost in TRP 2011-703, and substitutes the costs filed by other carriers, the Commission undermines the foundation of the Phase II costing design and a carrier's ability to recover its costs. The Commission should confirm, in its decision in this proceeding, that costing decisions will continue to be based on the subject carrier's actual costs.

60. The principles of Phase II costing become further distorted when the Commission imposes its own unsupported inputs, including "benchmarks" within the costing studies. For example, in TRP 2011-703, the Commission imposed a retail subscriber growth forecast for Shaw's retail Internet services that exceeded the growth rate used by Shaw. The Commission's proposed forecast was unreasonable given the highly competitive and mature Internet market in which

[34] 15 November 2011.

Shaw operates. The impact of the change was exacerbated by further unsupported adjustments to increase Shaw's TPIA demand forecast and decrease Shaw's traffic forecasts.

61. Indeed, if the Commission effectively benchmarks any of a carrier's costs or forecasts to those of other carriers – which Shaw does not concede is either appropriate or consistent with the design of the Commission's Phase II costing approach – this should only be performed on a strictly regional basis, to reflect the fact that different market conditions apply in different markets. For example, the Commission's benchmarking of Shaw's TPIA subscriber growth in Western Canada to that of Bell Canada's wholesale subscriber growth in Eastern Canada, as it did in Telecom Decision 2013-77,[35] completely misapplies the competitive dynamic in one region of the country to that of another, where it is simply irrelevant.

62. The Phase II design should also avoid asymmetrical applications of the principles between carriers operating in the same market. Certain carriers receive additional incentives or more favourable treatment in the application of Phase II costing. This serves only to distort and create instability in the market. For example, in TRP 2011-703, the Commission granted the incumbent telcos an additional 10% mark-up on Fibre-to-the-node (**FTTN**) services. The Commission did so in the face of direct evidence that cable carriers, such as Shaw, also invest in FTTN facilities. Both the *Telecommunications Act* and the Policy Direction require that carriers must be allowed to recover the costs associated with providing wholesale services and not be forced to subsidize the competitors that

[35] *Shaw Cablesystems G.P. – Application to review and vary certain aspects of Telecom Regulatory Policy 2011-703*, 21 February 2013, paragraph 21: "While Shaw submitted that it has operated aggregated wholesale HSA service for several years, and that the Commission's adjustment of Shaw's third-party Internet access services demand forecast growth is unrealistic, the Commission notes that the current market share of independent service providers in the retail Internet market for companies such as Bell Canada are well in excess of five percent."

utilize the network. By providing one class of carrier with an additional incentive to invest while denying other parties that same incentive undermines the principle of just and reasonable rates (that should be formulated through the Phase II costing process) and creates asymmetry in the market. This is particularly dangerous in the current competitive environment, where there is head-to-head rivalry between the cable carrier and the ILEC, particularly, in Western Canada. Going forward, therefore, the Commission should reconfirm its commitment – in costing as well as other aspects of the wholesale regulatory framework – to applying a symmetrical approach as between cable carriers and ILECs.

63. The Phase II costing approach must be applied in a fair and symmetrical manner across the industry to ensure that the resulting rates are fair and reasonable and to allow carriers to recover the costs without distorting the market. Unsubstantiated, arbitrary and internally inconsistent adjustments that replace a carrier's actual costs with the regulator's view of what these costs should be, blunt incentives for investment, diminish cost recovery and create instability in the marketplace while resulting in no sustainable benefit to consumers. In the present proceeding, CNOC and Primus are suggesting that the Commission continue to revise wholesale pricing policies and lower wholesale prices to artificially create downstream competition. In order to ensure the continuation of Canada's leading levels of network investment and innovation, carriers like Shaw must have an expectation of earning a reasonable return on their investments. Micro-managing these carriers' costs in order to achieve a pre-ordained level of competitive entry or incumbent market share loss not only blunts and complicates carriers' business cases for investment, but artificially supports entrant business plans that are unsustainable in the long term. Although these measures may be advocated for by CNOC and Primus in the name

of Canadian consumers, they ultimately work to consumers' detriment and threaten the competitiveness of the Canadian telecommunications industry as a whole.

64. CNOC's and Primus' costing proposals are not only generally unnecessary and misguided, many are also inherently problematic. We will briefly outline some of the major difficulties with their proposed changes to the costing model.

65. First, CNOC proposes the establishment of a working group to create a single Phase II costing model for the industry and to address transparency issues. This resource intensive initiative would yield little benefit, principally because a single costing model cannot possibly account for significant differences in infrastructure from carrier to carrier. Additionally, parties will be legitimately unwilling to disclose their confidential costing and network information to their competitors, which would be required to develop suitable costing models in a working group setting.

66. In a similar vein, CNOC has requested that more information be disclosed on the public record. CNOC has asked the Commission to require the incumbents to file with the Commission and disclose to interested parties the most recent electronic versions of their cost models, documentation relating to their accounting/information processes and systems used in conjunction with Phase II costing, each instance where historical data or costs are used in a cost study, together with justification for why prospective data cannot be used, and all subject matter expert (**SME**) estimates used in costing studies, among other things. These requests were recently considered, and rejected, by the Commission in the proceeding that culminated in Telecom Regulatory Policy CRTC 2012-592, *Confidentiality of information used to establish wholesale service*

rates (**TRP 2012-592**).[36] Following a careful analysis of the Policy Direction, the Commission expanded the disclosure guidelines for cost information filed in support of wholesale services; however, it did not accede to the requests being repeated by CNOC in this proceeding. These proposals ignore the competitive nature of the market and would require carriers to disclose cost information that would not otherwise be publicly available – disclosure of which could lead to specific harm (e.g., revealing the incumbent carriers' business strategies or hampering their ability to negotiate with suppliers of equipment or labour), as was specifically recognized by the Commission in TRP 2012-592.

67. CNOC also proposes updates to various parameter values used in costing studies that are unwarranted, unworkable, or misguided, as the case may be. For example, CNOC's suggestion that the incumbents' cost of equity track the Bank of Canada rate – a one-day loan rate to major financial institutions reflecting a risk-free rate on long term Government bonds – is simplistic and ignores the competitive and therefore risky nature of the market in which the incumbents operate. The Commission regularly reviews costs of equity to account for market fluctuations – Shaw's current rate was approved by the Commission in 2013. CNOC also calls for a review of the productivity improvement factor and suggests that it be updated regularly "to reflect market realities," lest competitors end up paying inflated rates for technologies experiencing particularly significant productivity improvements. This proposal is flawed because isolating any one element of a costing study and subjecting it to frequent reviews undermines the purpose of long term costing studies, which provide carriers, independent ISPs and consumers with certainty and stability. The very purpose of long term costing studies for wholesale services is that the upfront and ongoing costs of providing the service be spread out over a period of time. Opening the costing

[36] 26 October 2012.

studies and adjusting specific cost elements during the costing study would deny carriers the ability to recover their costs of providing the wholesale service. If fluctuating costing elements over a lengthy costing study period are a significant concern to CNOC, the appropriate solution would be to introduce shorter costing study periods, such as five or three year terms.

68. Finally, CNOC argues that there is insufficient visibility into whether mark-ups are overcompensating carriers for variable and fixed common costs. CNOC requests a detailed review of the mark-up policy for wholesale services, and recommends that the mark-up for cable carriers be eliminated and that a single mark-up, not to exceed 15%, be applied to all regulated wholesale services, creating symmetry between the cable carriers and ILECs. Shaw offers a single wholesale service – TPIA – which is not classified as Essential and is offered in a competitive environment. A 15% mark-up may be appropriate for services that genuinely qualify as "Essential" and for which there is no competition. However, there are significant risks associated with investing in a service and facilities in a competitive marketplace such as retail Internet, and those considerations must be taken into account in determining the appropriate mark-up.

69. The requirement that mark-ups reflect market conditions was confirmed by the Commission in TRP 2011-703 – in that proceeding, CNOC made similar requests for reduced markups on wholesale services, which were denied. There is no evidence that the retail Internet market is less competitive today than it was at the time of that proceeding.

70. The Commission should reject the costing proposals by CNOC and Primus. Moreover, the current proceeding provides the Commission an opportunity to reaffirm its commitment to Phase II costing principles, which require that rates be based on a carrier's own long-run incremental costs, and not the costs of

other carriers. This approach would confirm carriers' reasonable expectations that they will be able to recover their costs, together with a reasonable return on their investments, and send the correct economic signals to the marketplace, encouraging continued network investment and innovation for the benefit of all Canadians.

VIII. CONCLUSION

71. Shaw supports a wholesale services regime that is stable and predictable, that allows market forces to thrive and encourages network investment and service innovation, and that places emphasis on fostering competition in the downstream market to the benefit of Canadian consumers and businesses. Our regulatory framework should put consumers, not competitors, at the core. Where market forces can be relied on to achieve the Policy Objectives, the Commission should not interfere with them, create asymmetries among service providers, or impede service innovation to the disadvantage of Canadian consumers.

72. As discussed, in the residential markets, consumers are already well served by a fiercely competitive marketplace featuring multiple facilities-based platforms, high levels of investment and constant innovation. TPIA does not meet the Essential Facilities Test and mandated access to this service should therefore be phased out over a reasonable period that reflects the competitive market dynamic.

73. There is no need for mandated access to new HSA technologies. The Canadian market is competitive and comprises diverse service providers, offering services over a multitude of platforms. Mandated access to new HSA technologies will stifle innovation and network investment.

74. Market conditions do not support calls for EOI or functional or structural separation. Countries that have implemented EOI have done so in response to systemic anti-competitive behaviour, limited investment and the absence of innovation by a monopoly (often state-owned or formerly state-owned) regime. These circumstances do not exist in the Canadian market. Predictably, Canada ranks ahead of many of those countries who have implemented EOI in terms of capital intensity and broadband penetration and availability. As we have seen from the New Zealand experience, implementing EOI is a challenging and very resource-intensive task, which would inevitably draw scarce resources away from network investment and service innovation.

75. The Commission should reject the costing proposals by CNOC and Primus. Moreover, the current proceeding provides the Commission an opportunity to reaffirm its commitment to the application of its Phase II costing principles, including adherence to a carrier's own costs. This important policy should confirm the expectation of carriers like Shaw – who are spending billions of dollars on innovation and investment – that they will be able to recover their costs, together with a reasonable return. Instead of attempting to artificially induce uneconomic entry, a principled, cost-based approach to the pricing of wholesale access services will send the correct economic signals to the marketplace to encourage continued network investment and innovation for the benefit of all Canadians.

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