

November 20, 2012

Bermuda Regulatory Authority

By Email: reform@gov.bm

Subject: Pre-Consultation Questions and SMP Analysis

Dear Sir/Madam,

Bermuda Telephone Company Limited ("BTC") is hereby filing the attached response to the above-cited proceeding.

Sincerely,

Eric Dobson

Chief Executive Officer

### INTRODUCTION

- 1. Bermuda Telephone Company Limited (BTC, the company) is pleased to provide its comments to the Bermuda Regulatory Authority (RA) on its Pre-Consultation Documents associated with its market review process on Market Definition (Part A)<sup>1</sup> and Significant Market Power (Part B)<sup>2</sup>.
- At the outset, BTC confirms that its response to the Market Definition and SMP Reports reflects the
  company's understanding of the telecommunications market in Bermuda today and is restricted to
  the matters raised by the RA in these two reports. The company looks forward to providing its views
  on other important regulatory matters as the RA's program of further regulatory consultations
  unfolds.
- 3. This submission initially provides the company's responses to the RA's seventeen (17) consultation questions posed in the Market Definition Report and follows with the company's comments on the RA's conclusions and findings contained in the SMP Report.

# RESPONSES TO CONSULTATION QUESTIONS IN THE MARKET DEFINITION REPORT

**Consultation question 1:** Do you agree that fixed narrowband access and local calling form a single market?

4. BTC agrees with the RA's conclusion that fixed narrowband access and local calling form a single market and in particular as related to the report's conclusions on the economies associated with the bundling of access and local calling that are passed on to consumers.<sup>3</sup> As stated in the report:<sup>4</sup>

The almost universal bundling of access and local calling in Bermuda is also consistent with efficient production and consumption. The bundling of these services creates significant economies of scope, and hence cost savings, in both consumption, and especially production. Thus, absent regulatory distortions, it would not be commercially sensible to offer unbundled supply of one or both services.

**Consultation question 2:** Do you agree that mobile access and local calling form a single market?

<sup>&</sup>lt;sup>1</sup> Implementation of Electronics Communications Act 2011, Advisors Preliminary Recommendations, Pre-Consultation: Market Review Process (Part A)—Market Definition, dated 10 October 2012, (the Market Definition Report).

<sup>&</sup>lt;sup>2</sup> Implementation of Electronics Communications Act 2011, Advisors Preliminary Recommendations, Pre-Consultation: Market Review Process (Part B)—Significant Market Power, dated 10 October 2012, (the SMP Report).

<sup>&</sup>lt;sup>3</sup> The Market Definition Report, ¶ 62.

<sup>&</sup>lt;sup>4</sup> Ibid. ¶ 54.

5. BTC agrees with the RA's conclusion that mobile access and local calling should form a single market.<sup>5</sup>

**Consultation question 3:** Do you agree that international calls are not part of the market that contains retail fixed narrowband access and local calling?

6. BTC agrees with the RA's conclusion that international calls are not part of the market that contains retail fixed narrowband access and local calling. BTC in particular, fully supports the RA's conclusion that there is likely to continue to be a significant amount of unbundled international service supply. <sup>7</sup>

Turning to the specifics of the Bermudan markets, it seems likely that the implementation of the new unified (ICOL) licenses will lead to an increasing amount of bundling over time. However, the RA concludes that over the period of four years covered by this analysis there is likely to continue to be a significant amount of unbundled international service supply and as such considers it appropriate to that international calls are not part of the same market as narrowband access and local calls.

**Consultation question 4:** Do you agree with the finding that voice over broadband services (namely DOCSIS VoIP, VoWIMAX, FTTx VoIP and VoIP type 6) are all in the same market as narrowband access and local calls but that other types of VoIP and fixed services delivered via mobile networks are not?

- 7. BTC agrees with the RA's conclusions that voice over broadband services (namely DOCSIS VoIP, VoWIMAX, FTTx VoIP and VoIP type 6) are all in the same market as narrowband access and local calls but that other types of VoIP and fixed services delivered via mobile networks are not.<sup>8</sup>
- 8. BTC further notes the RA's conclusions that the presence of VoIP types 3-5 and mobile delivery of fixed service (the Yak), although not defined as part of standard telephony, may have a material impact on the SMP analysis of the retail fixed narrowband access and local calling market.<sup>9</sup>

**Consultation question 5:** Do you agree with the finding that fixed and mobile services are in separate markets? Explain.

- BTC does not disagree with the RA's finding that fixed and mobile services are in separate markets.
   The rationale and evidence provided in the Market Definition Report would appear to support such a conclusion. <sup>10</sup>
- 10. BTC would nonetheless note that the presence of mobile services would, in BTC's view, be expected to impact the SMP analysis of the fixed narrowband access and local calling market. BTC notes in

<sup>&</sup>lt;sup>5</sup> Ibid. ¶ 63.

<sup>&</sup>lt;sup>6</sup> Ibid. § 6.1 b. ¶ 68.

<sup>&</sup>lt;sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Ibid. §6.2. ¶ 113.

<sup>&</sup>lt;sup>9</sup> Ibid. ¶¶ 107,112.

<sup>&</sup>lt;sup>10</sup> Ibid. §6.3. ¶ 150.

particular the report's references to (1) a greater than 30% fixed-to-wireless substitution rate in the U.S. and the importance of the U.S. market experience in the RA's analysis and determinations and (2) the relevance of femtocell and WIFI deployment in the SMP analysis of fixed telephony. <sup>11</sup>

11. As stated in Appendix C of the Market Definition Report; 12

The purpose of the current notice is to publish the RA's findings on which markets are susceptible to ex ante regulation in accordance with section 22(1) of the ECA. The identification of a market in this notice does not represent a finding that SMP necessarily exists in that market, but simply that it is a candidate market and requires further analysis through the market review process.

12. BTC is providing its comments on the conclusions of the SMP Report<sup>13</sup> in Part B of this submission.

**Consultation question 6**: Do you agree with the finding that there are separate residential and business customer markets for (1) retail fixed access and local calls; and (2) retail broadband?

13. BTC agrees with the RA's finding that there are separate residential and business customer markets for (1) retail fixed access and local calls; and (2) retail broadband.<sup>14</sup>

**Consultation question 7**: Do you agree with the conclusion that for the purposes of the SMP and remedies it is not necessary to define separate customer markets for either of: (1) leased lines; (2) mobile services; or (3) subscription TV services?

14. BTC agrees with the RA's conclusion that for the purposes of the SMP and remedies it is not necessary to define separate customer markets for either of: (1) leased lines; (2) mobile services; or (3) subscription TV services.<sup>15</sup>

Consultation question 8: Do you agree with the finding that there is a separate geographic market for Central Hamilton for the supply of: Retail access lines and local calls to business customers; Wholesale fixed narrowband access lines and local calls; Wholesale call origination on fixed networks; Retail broadband to business customers; Wholesale broadband services; Retail domestic leased lines; and Wholesale terminating segments of leased lines?

15. BTC notes that the RA has chosen to assess geographic market boundaries by examining whether the degree of actual competition varies significantly by geographic area, or is likely to do so in the near future.<sup>16</sup>

<sup>&</sup>lt;sup>11</sup> |bid. ¶¶ 125-126 ¶ 149.

<sup>12</sup> Ibid. Appendix C ¶ 5.

<sup>&</sup>lt;sup>13</sup> Implementation of Electronics Communications Act 2011, Advisors Preliminary Recommendations, Pre-Consultation: Market Review Process (Part B)—Significant Market Power, dated 10 October 2012, (the SMP Report).

<sup>&</sup>lt;sup>14</sup> The Market Definition Report, § 6.4. ¶ 176.

<sup>15</sup> lbid.

- 16. On that basis BTC agrees with the RA's finding that there is a separate geographic market for Central Hamilton for the supply of the services listed in the question.<sup>17</sup>
- 17. However BTC notes that the RA has identified QCL as a provider of both residential and business voice services in Hamilton, yet the RA has not included residential voice service as a service included in that separate geographic Hamilton market. As stated in the report:<sup>18</sup>

Using its optical fibre network, Quantum provides data services as well as voice services using VoIP. It provides services to both residential and business customers. For example, in respect of residential customers, Quantum states on its website that it

- ... provides local loop access services and Voice Over IP services. Many of our customers utilize our high speed transparent Local Area Network (LAN) services in order to work remotely. If you are within the Quantum network footprint, we can service your access requirement (footnote omitted).
- 18. Accordingly, it is BTC's view that the RA's geographic market analysis in the Market Definition Report may as such be overly restrictive. Notwithstanding the fact that the RA has deemed residential voice service a national market, there is no logical reason in BTC's view why the competitiveness of this residential voice market cannot also be assessed at the level of the local exchange, as was the case in the RA's analysis of business voice services. In other words a competitor presence test that considers the location of QCL facilities, including all of the services that can be delivered on those facilities, notwithstanding their current level of market penetration in that geographic market. The fact that QCL was granted a Class B license over 10 years ago, yet has chosen to prioritize the delivery of business services as opposed to residential services over that period of time, does not take away from the fact that their network footprint provides them with competitor presence for the delivery of all the services referenced in the question as well as residential services.
- 19. To be clear, BTC does not dispute that residential voice service may be appropriately defined as a national market. BTC's concern is that an overly restrictive interpretation of that definition could lead to a case where a significant competitor presence is proven in a particular exchange such as the Hamilton exchange yet the resulting SMP analysis of that voice market would not consider the presence of such competitor facilities due to an overly reliant interpretation of the market as being national.
- 20. BTC would also note that the "national" labeling of the residential voice market could restrict (1) the appropriate application of modern regulatory tools such as market forbearance on the basis of geographical competitor presence (for example forbearance on an exchange by exchange basis) and (2) the development of appropriate regulatory programs associated with a carrier's obligation to

<sup>&</sup>lt;sup>16</sup> Ibid. § 6.5. ¶ 177.

<sup>&</sup>lt;sup>17</sup> Ibid. ¶ 200.

<sup>&</sup>lt;sup>18</sup> Ibid. ¶ 193.

serve in a competitive local voice service environment. It is BTC's understanding that a more complete consultation on these matters is anticipated to occur at a later date, however on this latter point, BTC would simply note that it is well established fact that an incumbent local exchange carrier's costs are predominantly fixed, especially as related to the delivery of local exchange services. Accordingly, any material market share loss to competitors would be expected to financially stress the incumbent's ability to meet its universal service obligations, as network facilities are stranded due to market loss but must nonetheless be maintained in a "stand ready" state in order to meet those same universal service obligations.

## **Consultation question 9**: How should Central Hamilton be defined?

- 21. Consistent with its response to Consultation question 8 above, it is BTC'S view that Central Hamilton should be defined as that area served by BTC's Hamilton Exchange. This would be consistent with the company's current and foreseeable network architecture and related interconnection regime, where the default Point of Interconnection (POI) for that geographic area is the Hamilton Central Office (CO).
- 22. A map of the boundaries of the Hamilton Exchange and the location of the Hamilton CO is attached.

**Consultation question 10**: Do you agree with the conclusion that mobile broadband is not in the same market as fixed broadband?

- 23. BTC does not disagree, at this time, with the RA's conclusion that mobile broadband is not in the same market as fixed broadband. <sup>19</sup>
- 24. BTC notes however the report's reference to Digicel's (DCB) and CellOne's (BDC) 4G network rollouts with download/upload speeds as high as 9 Mbps/5 Mbps.<sup>20</sup> BTC further notes the statements in the report (1) that the overwhelming majority of BTC's access customers have chosen access plans between 1 and 4 Mbps and (2) that arguably, once the ICOL is issued and fixed access providers are free to provide fixed broadband services to their customers without having to partner with an ISP for doing so, fixed broadband prices may drop below those of mobile.<sup>21</sup>
- 25. These statements argue for inclusion of mobile broadband in the same market as fixed broadband in the near future.
- 26. BTC also notes that both Digicel and CellOne have products today that currently compete with fixed broadband speeds of 1 Mbps or less. And these mobile services are becoming more prevalent as consumers replace PCs with tablets for browsing and communications. This of course has a direct impact on the SMP analysis of the fixed broadband wholesale market, especially as related to wholesale speeds of 1 Mbps or less.

 $<sup>^{19}</sup>$  lbid. § 8.3 (b). ¶¶ 280-281.

<sup>&</sup>lt;sup>20</sup> Ibid. Notes to Table 14.

 $<sup>^{21}</sup>$  lbid. Notes to Table 14 and  $\P$  278.

27. BTC commends the RA in its undertaking to monitor and make appropriate adjustments in the fixed broadband market definition on a going forward basis as well as its statement on the relevance and importance of the of the SMP analysis of the fixed broadband market.<sup>22</sup>

...the RA is of the opinion that the infirmities of mobile broadband relative to fixed broadband, mobile's low data usage caps, and the fact that mobile broadband is not yet capable of providing the triple and quadruple play service bundles that fixed broadband is capable of, will not alter consumers' view that mobile service is a complement to fixed service and not a substitute for it. However, the RA will monitor the situation closely and make any appropriate adjustments in the fixed broadband market definition that are deemed to be necessary. This development is, of course, very relevant to the SMP analysis and will be considered in more detail there.

28. BTC is providing its comments on the conclusions of the SMP Report in Part B of this submission.

**Consultation question 11**: Do you agree with the conclusion that the relevant forward-looking definition of the retail broadband market is one that includes the bundle of broadband access and Internet services?

29. BTC agrees with the RA's conclusion that the relevant forward-looking definition of the retail broadband market is one that includes the bundle of broadband access and Internet services and in particular as related to the report's conclusions on the benefits to consumers from being able to purchase Internet access and services jointly.<sup>23</sup> As stated in the report:

230. The market developments outlined in the preceding sections suggests (sic) that bundling of Internet access and services is not accidental, but driven by market forces. The RA considers that in particular, such bundling occurs because a significant number of especially smaller unsophisticated Internet subscribers greatly benefit from being able to purchase Internet access and services jointly (economies of scope in consumption). Such subscribers benefit from immediately obtaining, rather than from having to separately seek out, basic services like assignment of email and instant messaging addresses, email and website hosting, and customer service in service setup and management. Thus, carriers that bundle access and Internet services meet those consumer needs more effectively and efficiently than carriers that only provide access service, leaving it to the customer to obtain Internet services.

**Consultation question 12**: Do you agree with the conclusion that there are separate retail markets for low-speed leased lines (that is, leased lines that provide a capacity of less than 1 Mbps) and high-speed leased lines (that is, leased lines with a capacity of 1 Mbps or more)?

<sup>&</sup>lt;sup>22</sup> Ibid. ¶ 270

<sup>&</sup>lt;sup>23</sup> Ibid. § 8.2 .¶ 230.

- 30. BTC agrees with the RA's conclusion that there are separate retail markets for low-speed leased lines (that is, leased lines that provide a capacity of less than 1 Mbps) and high-speed leased lines (that is, leased lines with a capacity of 1 Mbps or more).<sup>24</sup>
- 31. BTC further notes and agrees with the RA's conclusions that these service markets are further disaggregated into two geographic markets, one inside the City of Hamilton and the other elsewhere in Bermuda.<sup>25</sup>
- 32. BTC would also note and agree with RA's preliminary conclusion that all technologies be included in the same market, consistent with the requirement of Section 21 of the EC Act.<sup>26</sup>

**Consultation question 13**: Do you agree with the conclusion that there are separate wholesale markets for low-speed leased lines (that is, leased lines that provide a capacity of less than 1 Mbps) and high-speed leased lines (that is, leased lines with a capacity of 1 Mbps or more)?

- 33. BTC agrees with the RA's general conclusion that there are separate wholesale markets for low-speed leased lines and high-speed leased lines.<sup>27</sup>
- 34. However BTC is of the view that the realities of the wholesale market in Bermuda argue for a different definition of wholesale low versus high speed leased lines. Although the low speed market for retail is defined as 1 Mbps, it is BTC's view that a more accurate low versus high-speed delineation point in the wholesale market is 4 Mbps. The reason for this relates to the construct of wholesale leased line pricing in Bermuda whereby higher speed lines generally cross subsidize lower speed pricing, especially as related to the less that 1 Mbps low speed-speed range. Accordingly any SMP analysis of the low-speed wholesale leased line market could result in regulatory remedies (for example a retail price minus percent approach) that result in below cost wholesale pricing. It is BTC's view that this pricing distortion can be avoided by defining the wholesale low-speed leased line market as "leased lines that provide a capacity of less than 4 Mbps".

**Consultation question 14**: Do you agree with the conclusion that there is a market for the supply of fixed access network facilities that includes duct, towers, and poles? Are there other facilities that should be included in this market?

- 35. BTC agrees with the RA's conclusion that there is a market for the supply of fixed access network facilities that includes duct, towers, and poles.<sup>28</sup>
- 36. BTC confirms that there is an inherent market for duct and poles as BTC leases duct from BLDC on Southside and pole space from Belco. BTC notes that it must continue with these lease agreements, as they are necessary for the delivery of services to its customers.

<sup>&</sup>lt;sup>24</sup> Ibid. § 10.2. ¶ 321.

<sup>&</sup>lt;sup>25</sup> Ibid.

<sup>&</sup>lt;sup>26</sup> Ibid. ¶ 314.

<sup>&</sup>lt;sup>27</sup> Ibid. ¶ 325.

<sup>&</sup>lt;sup>28</sup> |bid. § 11. ¶ 328.

- 37. BTC would further note that BLDC is regulated by the RA but Belco is not. Due to the necessity of these pole attachments for BTC to continue to provide service, and BTC's status as a regulated local service provider, BTC would therefore request that these pole attachment facilities be subject to some form of regulation. In particular, BTC needs more certainty as to the regulatory status of this market going-forward, including related definitions and remedies associated with items such as available space on these support structures and carrier (owner) wholesale obligations.
- 38. BTC is particularly concerned for example with the issue of the definition of available capacity on support structures and its relationship to a carrier's (owner's) future growth requirements as well as the issue of continuity of access where commercial agreements are already in place.

**Consultation question 15**: Do you agree with the conclusion that there is a market for the supply of wireless network facilities that includes tower and mast access: Are there other services that you consider lie in this market?

39. BTC has no position on this matter.

**Consultation question 16**: Do you agree that the relevant retail market for the supply of subscription TV services to deliver broadcast content to end users includes subscription services provided via different means and is not disaggregated according to content?

40. BTC has no position on this matter.

**Consultation question 17**: Do you agree that the relevant wholesale market for the supply of subscription TV services to deliver broadcast content to end users includes subscription services provided via different means and is not disaggregated according to content?

41. BTC has no position on this matter.

### B. COMMENTS ON CONCLUSIONS CONTAINED IN THE SMP REPORT

# 1. SMP - Retail fixed narrowband access lines and local calls

42. The RA has concluded that BTC has SMP in the retail access and local markets.<sup>29</sup>

In the light of the above findings and the underlying detailed analysis conducted, the RA tentatively finds that BTC holds SMP in the retail access and local markets. To the extent that market reviews of the relevant wholesale markets find SMP exists and leads to wholesale regulation, the RA consider that retail SMP is likely to continue to exist for at least part (and perhaps all) of the period covered by the review. This is because LNP will not be operational for at least a year, and even then it will take time for customers to be aware or to complete existing contracts with BTC. In addition, it also takes time to overcome general customer inertia. The market in Central Hamilton seems increasingly competitive and it may be that a lower level of regulatory intervention is required in that market. (Emphasis added).

The RA has further identified a preliminary list of remedies for this market as listed in the following table.<sup>30</sup>

Service	Definition of candidate markets	Possible Remedies
1. Retail fixed narrowband access lines and local calls	Definition of candidate markets  A national market for the supply of retail fixed narrowband access lines and local calls to residential customers  A market for the supply of retail fixed narrowband access lines and	Possible Remedies  Residential prices could not increase more than 7% per annum (i.e., the \$26 rate could increase to \$26 *1.07 = 27.82 in 2013; in 2014 it could increase to 26*1.07*1.07=\$29.77) absent an
	local calls to business customers in the City of Hamilton  A market for the supply of retail fixed narrowband access lines and local calls to business customers outside of the City of Hamilton	affirmative showing by BTC that its prices are below cost.  Same rule for business customers outside of Hamilton.  No retail remedies for business market in Hamilton.  \$85(5) of the RAA prohibits price squeezes and predation. Remind parties of this prohibition but not proscribe specific methodologies on price squeezes/predation until these topics are explored in a consultation.

43. The RA has justified its findings on the basis of (1) extremely high market shares that reflect a number of key barriers to entry including substantial difficulties in replicating infrastructure, (2) a

<sup>&</sup>lt;sup>29</sup> SMP Report, § 2.2. ¶ 455.

<sup>&</sup>lt;sup>30</sup> Ibid. Appendix A.

- lack of access to wholesale services or facilities, (3) technological advantages of fixed networks over fixed wireless and (4) high switching costs and customer inertia.<sup>31</sup>
- 44. On the matter of extremely high market shares BTC would first of all note that the RA's market share analysis would appear to have been undertaken with the overly restrictive view that the local voice residential market can only be viewed and analyzed as a national market.<sup>32</sup> As indicated in our response to Question 8 in Part A to this submission, BTC is of the view that this approach is overly restrictive in that it does not account for significant competitor presence at the level of the local exchange.
- 45. In BTC's view there is significant competitor presence in the Hamilton exchange, for both residential and business services, given the current presence of QCL wire line access facilities as well as wireless access from BDLC, BDC and DCB. This competitor market presence reality is well documented in both the Market Definition and SMP reports.
- 46. BTC further notes the report's finding that BCV and or LinkBermuda are expected to enter this market over the period of the current review (4 years).<sup>33</sup>
- 47. On the matter of customer switching costs and customer inertia, BTC notes the RA's reference to the introduction of local number portability (LNP) over the next year and the RA's comment on expected customer switching costs and inertia post LNP implementation. BTC is concerned with this characterization of the customer market post LNP. LNP systems are put in place by both the incumbent and new entrant and the only customer interaction with LNP is the marketing information provided to the customer (by the new entrant or incumbent) that he or she will be able to retain their current assigned phone number even though they may be switching to another local service provider. Further, LNP implementation standards in North America typically require that numbers be ported from one provider to another within a few days of a porting-out or porting-in local service request.
- 48. In conclusion, and for the reasons noted above, BTC is of the view that with respect to the retail access and local voice market, the RA's finding that BTC has SMP in the residential market in the Hamilton exchange would not appear to be supported by the results of the report. In BTC's view the SMP analysis of the residential voice market should lead to a similar conclusion as related to the business voice market, whereby BTC is not deemed to have SMP in the business voice service market in the Hamilton exchange.
- 49. BTC does not disagree with the RA's conclusion on this matter in the areas of its five other local exchanges (St-Georges, East, Paget, Southampton and West).

<sup>&</sup>lt;sup>31</sup> Ibid. ¶ 453.

<sup>&</sup>lt;sup>32</sup> Ibid. ¶¶ 402-407.

<sup>&</sup>lt;sup>33</sup> Ibid. ¶ 454.

- 50. On the matter of the RA's proposed remedy in those exchanges where BTC is deemed to have SMP, BTC notes that the retail fixed narrowband access and local calls market has been defined to include a number of local voice services including (1) basic residential service, (2) DSL voice (3) local voice optional services and (4) business service.
- 51. It is BTC's understanding that the RA's proposed price ceiling increase of 7% per year would apply to each of BTC's voice products in the defined retail fixed narrowband access and local call market.

# 2. SMP - Wholesale fixed narrowband access and local calls

- 52. The RA has concluded that BTC has SMP in the two defined geographic markets for wholesale fixed narrowband access and local calls. The RA has justified its findings on the basis of (1) high barriers to entry, (2) technological advantages of fixed wire line networks over fixed wireless networks and (3) the vertical integration of networks that translates into little incentive to supply wholesale services without regulatory intervention.<sup>34</sup>
- 53. The RA has further identified that no additional regulatory remedies are needed for this market. 35

Service	Definition of candidate markets	Possible Remedies
8. Wholesale fixed narrowband access and local calls	☐ A wholesale market for the supply of fixed narrowband access and local calls in the City of Hamilton ☐ A wholesale market for the supply of fixed narrowband access and local calls in areas other than the City of Hamilton	2 None

54. BTC agrees with the RA's SMP findings on this matter. It is BTC's understanding that there is no need for the company to provide wholesale interconnection services for the origination of local calls associated with stand-alone POTS. BTC has concluded on the basis of (1) the non-imposition of any regulatory remedy for this wholesale market, (2) the RA's proposed regulatory remedy associated with wholesale broadband access in the form of retail minus pricing (see section 6 below) and (3) the RA's determination that DSL voice is part of the fixed narrowband access and local calls market (see the answer to Consultation question 4).

## 3. SMP - Wholesale origination of international calls on fixed lines

55. The RA has concluded that BTC has SMP in the two defined geographic markets for wholesale origination of international calls on fixed lines fixed. The RA has justified its findings on the basis that this service requires a customer access network and therefore the same considerations apply as in

<sup>&</sup>lt;sup>34</sup> Ibid. § 2.3. ¶ 456.

<sup>&</sup>lt;sup>35</sup> Ibid. Appendix A.

respect to the wholesale narrowband access and local calls. The RA also notes that the service of wholesale origination is currently provided under regulatory mandate.<sup>36</sup>

Service	Definition of candidate markets	Possible Remedies
6. Call origination on fixed networks	☐ A wholesale market for the origination of calls on fixed networks in the City of Hamilton ☐ A wholesale market for the origination of calls on fixed networks in areas other than the City of Hamilton	<ul> <li>☑ International calls. Price ceiling is the charge established by the LAC (local access charge) proceeding, unless subsequently revised by the TC or Board.</li> <li>☑ No need to address domestic calls given bundling of local calls and access.</li> <li>☑ Preselection of international carriers. Section 73(8)(a) of the ECA requires carrier pre-selection for international calls for all ICOL holders (that participate in the numbering plan) until the advent of number portability.</li> </ul>

- 56. BTC agrees with the RA's findings, however notes that on the matter of possible remedies for this market, the issue of equal access to toll service providers such as international carriers may be dealt with regulatory provisions associated with Equal Access and related software, not necessarily LNP.
- 4. SMP Wholesale termination on individual fixed networks
- 57. The RA has concluded that each supplier has SMP in the market for the termination of calls on its fixed network.37
- 58. The RA has further identified that the application of the current regulatory policy remains appropriate.38

Service	Definition of candidate markets	Possible Remedies
7. Call termination on fixed networks	Markets for the supply of call termination on each individual fixed network	Maintenance of current policy. Bill and keep domestic calls; \$0.03 termination rate for international calls (until revised by the TC or Board).

59. BTC agrees with the RA's findings on this matter.

<sup>&</sup>lt;sup>36</sup> SMP Report, § 2.4. ¶ 457. <sup>37</sup> Ibid. § 2.5. ¶ 459.

<sup>38</sup> Ibid. Appendix A.

### 5. SMP - Retail broadband access

- 60. The RA has concluded that BTC and BCV hold collective SMP in the retail broadband.<sup>39</sup>
- 61. The RA has further identified a preliminary list of remedies for this market.<sup>40</sup>

Service	Definition of candidate markets	Possible Remedies
2. Retail broadband access	☑ A national market for the supply of retail fixed broadband access and Internet services to residential customers. ☑ A market for the supply of retail fixed broadband access and Internet services to business customers in the City of Hamilton. ☑ A market for the supply of retail fixed broadband access and Internet to business customers outside of the City of Hamilton.	☑ Price per Mb/s cannot increase (unless an affirmative showing that prices are below cost). ☑ No price restrictions on new products (including the bundling of access with ISP service) other than price squeeze/predation restriction. ☑ Must offer retail access at the existing speeds, as well as whatever new speeds are introduced for bundled access and ISP service.

- 62. BTC does not disagree with the RA's SMP conclusions and remedies at this time however notes the RA's undertaking, as quoted in BTCs response to consultation Question 10, to monitor and make appropriate adjustments in the fixed broadband market definition on a going forward basis as well as its statement on the relevance and importance of the SMP analysis of the fixed broadband market.
- 63. It is nonetheless BTC's view that once the ICOLs have been issued, it is highly unlikely that BTC will have any SMP in the retail broadband access market.

# 6. SMP - Wholesale broadband markets

- 64. The RA has concluded that BTC and BCV hold collective SMP in the wholesale broadband markets. 41
- 65. The RA has further identified a preliminary list of remedies for this market.<sup>42</sup>

Service	Definition of candidate markets	Possible Remedies
9. Wholesale broadband access	A wholesale market for the supply of fixed broadband access in the City of Hamilton  A wholesale market for the supply of fixed broadband access in areas other than the City of Hamilton.	☐ retail minus for both access, and access + ISP

 $<sup>^{39}</sup>$  lbid. § 3.1  $\P$  516.

<sup>&</sup>lt;sup>40</sup> Ibid. Appendix A.

<sup>&</sup>lt;sup>41</sup> Ibid. § 3.2 ¶ 517.

<sup>&</sup>lt;sup>42</sup> Ibid. Appendix A.

66. BTC does not disagree with the RA's SMP conclusions and remedies at this time however reiterates its comments provided in our response to consultation Question 10 that current wireless products today compete with fixed broadband speeds of 1 Mbps or less and are expected to directly impact BTC's SMP in the fixed broadband wholesale market for those speeds.

## 7. SMP - Retail leased lines

- 67. The RA has concluded that BTC has SMP in the low-speed data markets in all geographic areas and that BTC has SMP in the retail supply of high-speed leased lines.<sup>43</sup>
- 68. The RA has further identified a preliminary list of remedies for this market.<sup>44</sup>

Service	Definition of candidate markets	Possible Remedies
4. Retail leased lines	<ul> <li>☑ A market for the retail supply of low-speed retail leased lines in the City of Hamilton.</li> <li>☑ A market for the retail supply of low-speed retail leased lines outside of the City of Hamilton.</li> <li>☑ A market for the retail supply of high-speed retail leased lines in the City of Hamilton.</li> <li>☑ A market for the retail supply of high-speed retail leased lines outside of the City of Hamilton.</li> </ul>	☐ The price of low speed-retail leased lines cannot increase more than 7%, per annum, absent an affirmative showing by BTC that its price is below cost. ☐ No remedies for high-speed data in Central Hamilton. ☐ The price of high speed-retail leased lines outside of Central Hamilton cannot increase more than 7%, per annum, absent an affirmative showing by BTC that its price is below cost. ☐ In order to avoid exclusion from the international market, for any international product, domestic retail access must also be made available.

- 69. BTC does not disagree with the RA's SMP conclusions and remedies at this time.
- 70. BTC would also comment that the RA's findings with respect to the market for high-speed lines argues for the immediate forbearance of BTC's high-speed data services in the Hamilton exchange. This should result in the withdrawal of all BTC tariffs associated with these service offerings in the Hamilton exchange.

### 8. SMP - Wholesale leased lines

71. The RA has concluded that BTC has SMP in the wholesale market for low-speed data tails in all areas of Bermuda and that BTC has SMP in the wholesale of high-speed data tails outside of Hamilton.<sup>45</sup>

<sup>&</sup>lt;sup>43</sup> Ibid. ¶¶ 624-625.

<sup>44</sup> Ibid. Appendix A.

<sup>&</sup>lt;sup>45</sup> Ibid. ¶¶ 627-628.

72. The RA has further identified a preliminary list of remedies for this market.<sup>46</sup>

Service	Definition of candidate markets	Possible Remedies
13. Wholesale provision of terminating segments of leased lines	☐ A market for the wholesale supply of low speed data tails in the City of Hamilton ☐ A market for the wholesale supply of low speed data tails outside of the City of Hamilton ☐ A market for the wholesale supply of high speed data tails in the City of Hamilton ☐ A market for the wholesale supply of low speed data tails outside of the City of Hamilton	Retail minus for low speed data tails. Retail minus for high-speed data tails outside Central Hamilton

- 73. BTC does not disagree with the RA's SMP conclusions and remedies at this time.
- 74. BTC's understanding is that the mark down from retail associated with the retail minus remedy would be established on the basis of an appropriate consultation on the matter.

# 8. SMP - Infrastructure access

- 75. The RA has concluded that owners of ducts and poles have SMP due to the difficulty in replacing these facilities and that Northrock, BDC and Digicel have SMP with respect to wireless towers and masts.47
- 76. The RA has further identified a preliminary list of remedies for this market.<sup>48</sup>

Service	Definition of candidate markets	Possible Remedies
14. Supply of access to infrastructure facilities	<ul> <li>☑ A market for the wholesale supply of access to facilities used to construct fixed local access networks.</li> <li>☑ A market for the supply of access to facilities used to construct wireless radio access networks.</li> </ul>	☑ Non-discriminatory access (including a price squeeze test).

77. As discussed in our response to consultation Question 13, BTC fully supports non-discriminatory access used to construct fixed local access networks but also as related to the operation of existing fixed local access networks through the maintenance of existing pole and duct lease agreements.

<sup>&</sup>lt;sup>46</sup> Ibid. Appendix A. <sup>47</sup> Ibid. ¶¶ 636-637.

<sup>48</sup> Ibid. Appendix A.

78.	. As the major provider of fixed local services in Bermuda, BTC needs certainty as to the regulatory
	status of this market going-forward, including related definitions and remedies associated with
	items such as available space on these support structures and carrier (owner) wholesale obligations.

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79.	As noted in its response to consultation Question 13, BTC is particularly concerned with the issue of the definition of available capacity on support structures and its relationship to a carrier's (owner's) future growth requirements as well as the issue of continuity of access where commercial agreements are already in place.

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