BEFORE THE CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION

IN THE MATTER OF

TELECOM NOTICE OF CONSULTATION CRTC 2017-49
REVIEW OF THE COMPETITOR QUALITY OF SERVICE REGIME

INTERVENTION OF CANADIAN NETWORK OPERATORS CONSORTIUM INC.

APRIL 24 2017

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EXECUTIVE SUMMARY[1]

ES1. CNOC proposes a modern Q of S regime based predominantly upon the current regime established in TD 2005-20. Initially, the revised Q of S framework should include local exchange services and wholesale HSA services.

ES2. The need for a modern Q of S regime is undeniable. Q of S reporting data submitted by the ILECs clearly demonstrates that there is a continuing need for the local voice RRP. This data also emphasizes the need for a repeat failure mechanism to deter repeated and prolonged failures to achieve certain Q of S standards. On the wholesale HSA service side, competitors face an omnipresent risk of delays relating to service order activations, installations, repairs and disconnections.

ES3. The core features of CNOC's proposed Q of S regime are as follows:

i. A set of guiding principles that matches those approved in TD 2005-20 with one additional principle intended to clarify the role and purpose of company-wide indicators;

ii. One branch of the Q of S regime will apply to local exchange services provided by Bell Canada, MTS Inc., Saskatchewan Telecommunications, Télébec, TELUS Communications Company and Northwestel Inc. The second branch for wholesale HSA Services will apply to these listed parties, in addition to Bragg Communications Inc. carrying on business as Eastlink, Cogeco Cable Inc., Rogers Communications Canada Inc., Shaw Cablesystems G.P. and Videotron G.P.;

iii. Services included in the competitor Q of S regime should satisfy two criteria: (1) those services should be mandated wholesale services (i.e. the services meet the Commission's essentiality test, as set out in Telecom Regulatory Policy CRTC 2015-326); and (2) those services must be deliverable at different Q of S performance levels;

iv. Continued use of the current Q of S indicators for local exchange services;

[1] For brevity, capitalized and abbreviated terminology in the Executive Summary holds the meaning set out in the body of CNOC's submission.

v. A new proposed set of company-wide and competitor-specific Q of S indicators (including trailing indicators) for wholesale HSA services addressing installations, repairs and installations;

vi. Use of the RRP formula approved in TD 2005-20;

vii. Adoption of a repeat failure mechanism that is subject to a reasonable cap and is symmetrical in nature (i.e., which resets after Q of S compliance) so as to be non-punitive in nature;

viii. Small ILECs should continue to be monitored via a complaint-based system;

ix. The current exclusion application process should continue to apply as is;

x. The reporting requirements established in TD 2005-20 should apply to all services that are subject to the Q of S regime;

xi. The transition period to the modernized Q of S regime should be 120 days; and

xii. The Q of S regime should be reviewed every five years, preferably as part of wholesale regime reviews as a matter of regulatory efficiency.

ES4. In addition to Q of S indicators and a RRP, CNOC recommends other regulatory measures to prevent and remedy anti-competitive conduct, consisting of: (1) ensuring that incumbent tariffed terms and conditions continue to prohibit limitations of liability contained in terms and conditions of approved tariffs wherever such limitations relate to an incumbent's deliberate fault, gross negligence, anti-competitive conduct or breach of contract where the breach is a result of that incumbent's gross negligence; and (2) utilizing the Commission's AMPs powers to address instances of anti-competitive conduct identified by the Q of S regime or otherwise.

ES5. CNOC also recommends that the Commission monitor the Q of S performance levels of the national wireless carriers throughout all stages of the regulated wholesale roaming service provisioning process for a period of 1-2 years following final approval of the wholesale roaming service tariffs based on any complaints received regarding the quality of those services. This monitoring activity will allow the Commission to make informed decisions about whether, and if so, how to include wholesale roaming services in the Q of S regime. This approach of monitoring and reactively adjusting the Q of S regime could also be applied for other wholesale services going forward.

ES6. As a general rule however, CNOC urges the Commission to subject proactively all new regulated wholesale services that emerge to an early Q of S analysis to determine the manner in which such services should be incorporated into the Q of S regime. Wherever there is a risk that not including such services could lead to significant roadblocks to competition, such services should be included in a Q of S regime as soon as they become available.

ES7. CNOC's recommendations promote the telecommunications policy objectives listed in subsections 7(a)(b)(c)(f) and (h) of the *Act*.

ES8. Likewise, CNOC's proposals conform with subparagraphs 1(a)(ii), 1(b)(ii) and 1(b)(iii) of the Policy Direction.

1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

1. Canadian Network Operators Consortium Inc. ("CNOC") is pleased to submit its comments in the proceeding initiated by Telecom Notice of Consultation CRTC 2017-49[2] ("TNC 2017-49") to review the competitor quality of service ("Q of S") regime.

2. Over twelve years have elapsed since Telecom Decision CRTC 2005-20[3] ("TD 2005-20), when the current Q of S framework including a rate rebate plan ("RRP") was established for local exchange services provided by incumbent local exchange carriers ("ILECs"). Since then, the Commission's regulatory policies surrounding essential wholesale services have changed dramatically in response to the advent of new technologies, shifting market dynamics and evolving consumer behaviors. Today, competition with respect to the two most important retail telecommunications services from a consumer perspective – Internet access and mobile wireless services – is assisted by upstream regulation of wholesale high-speed access ("HSA") services and GSM[4]-based domestic wholesale roaming ("wholesale roaming") services. However, the full potential of these regulatory policies in terms of competitive benefits will not be fulfilled until incumbent providers[5] of such wholesale services have effective incentives to provide minimum service levels that allow competitors to provision quality and reliable services to their retail customers. Indeed, the *status quo* actually provides incumbent providers of wholesale HSA services and / or wholesale roaming services with incentives to either wilfully or negligently undermine wholesale service levels to maintain a competitive advantage and avoid investments that may be necessary to deliver adequate Q of S levels.

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[2] *Review of the competitor quality of service regime*, Telecom Notice of Consultation CRTC 2017-49, 23 February 2017.

[3] Finalization of quality of service rate rebate plan for competitors, Telecom Decision CRTC 2005-20, 31 March 2005.

[4] Global System for Mobile Communications ("GSM").

[5] Note: References to "incumbents" refers to the incumbent providers identified in Section 2.11. This section explicitly identifies the providers that should be subject to different parts of the Q of S regime proposed by CNOC. For simplicity, CNOC often refers broadly to "incumbents" in several parts of this intervention (particularly in Section 2.7 which lists all of CNOC's proposed Q of S indicators) any ambiguity surrounding these references is definitively resolved by referring to Section 2.11.

3. The limited scope of the current Q of S regime has been repeatedly and consistently exploited by incumbent carriers throughout the years. Some of the most egregious examples were described in the record of the proceeding initiated by CNOC's September 2013 Part 1 Application requesting relief to address the unduly discriminatory Q of S levels applicable to wholesale HSA services provided by cable carriers[6] ("CNOC Cable Q of S Application"). Although there were positive outcomes from the CNOC Cable Q of S Application, competitors remain vulnerable to poor wholesale Q of S performance by incumbents.

4. The proceeding initiated by TNC 2017-49 provides an opportunity to address the longstanding and ongoing and problems described in the preceding paragraphs by modernizing the Commission's competitor Q of S regime so that it includes wholesale HSA services in addition to local exchange services.

5. CNOC is encouraged that the Commission has referenced the recent regulation of wholesale roaming services as a matter of relevance for the reviews of the Q of S regime.[7] At this early stage in the regulation of these services,[8] CNOC's ability to recommend meaningful Q of S indicators and a RRP is limited. In the months following the final approval of terms and conditions associated with wholesale roaming services, CNOC recommends that the Commission closely monitor the Q of S performance levels of the national wireless carriers[9] throughout all stages of the wholesale roaming service provisioning process. Tracking complaints relating to performance levels over a set period of 1-2 years from the final approval of wholesale roaming service tariffs will allow the Commission to make informed decisions about whether, and if so, how to include wholesale roaming services in the Q of S regime.

6. CNOC further recommends that the Commission apply a similar complaint monitoring approach for all other current and future mandated wholesale services. If any mandated service is subject to recurring Q of S complaints, the Commission should take expedited measures to include

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[6] Namely, Cogeco Cable Inc. ("Cogeco"), Rogers Communications Canada Inc. ("RCCI"), Shaw Cablesystems G.P. ("Shaw") and Videotron G.P. ("Videotron").

[7] TNC 2017-49, at para 8.

[8] Note: the terms and conditions for mandated wholesale roaming services have yet to be finalized.

[9] Namely, Bell Mobility Inc., RCCI and TELUS Communications Company ("TCC") (collectively, the "national wireless carriers").

any such service in the Q of S regime. Ongoing Commission monitoring and reactive adjustments to the Q of S regime will ensure that competitors do not have to endure poor Q of S levels for mandated wholesale services until the next major review of the Q of S regime.

7. As a general rule however, the Commission should proactively include emerging mandated wholesale services as part of the Q of S regime wherever there is a significant risk that not doing so can lead to significant roadblocks to competition. For instance, disaggregated wholesale HSA services will be available to competitors in the near future. These services will require competitors to utilize various new interconnection services from incumbents. Given the significance of disaggregated wholesale HSA services to competition in downstream retail markets for Internet access services, CNOC submits that it would be appropriate to establish Q of S standards for those services over the course of the remaining process in the follow-up to Telecom Regulatory Policy CRTC 2016-379[10].

8. Expanding the Q of S regime to encompass wholesale HSA services will not require the Commission to reinvent the wheel. The current regime, although too narrow in terms of the scope of wholesale services that it covers, is well designed and has proven to be generally effective overall. As such, the current regime consists of an appropriate template for the modern competitor Q of S framework that should result from this proceeding. Building upon this solid and reliable foundation will also leverage efficiencies drawn from Commission and industry familiarity with the current regime in order to finalize and deploy a modernized competitor Q of S framework in a timely and cost-effective manner.

9. The balance of this submission provides responses to each of the seventeen questions outlined in TNC 2017-49. As a prelude to these responses, CNOC provides a brief summary of its overall position in Section 1.2, below. At the end of the intervention, CNOC demonstrates how the submissions herein promote the telecommunications policy objectives of the *Telecommunications*

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[10] *Follow-up to Telecom Regulatory Policy 2015-326 – Implementation of a disaggregated wholesale high-speed access service, including over fibre-to-the premises access facilities*, Telecom Decision CRTC 2016-379, 20 September 2016.

Act (the "*Act*") and adhere to the Policy Direction[11]. Finally, CNOC provides its conclusions in Part 4.0.

1.2 CNOC's General Position

10. As already noted, CNOC proposes to maintain the current Q of S regime for local exchange services and introduce Q of S requirements for wholesale HSA services.

11. The core features of the framework proposed by CNOC include: a set of guiding principles based upon those approved in TD 2005-20[12]; (ii) a set of company-wide Q of S indicators; (iii) a set of competitor-specific Q of S indicators that are functionally equivalent to those approved in TD 2005-20[13]; (iv) a RRP based on the same formula and process that applies to the local exchange service RRP[14]; and (v) a repeat failure mechanism.

12. CNOC's proposed framework is predominantly based on the model provided by the TD 2005-20 Q of S regime. While CNOC is recommending a few changes that are intended to address certain vulnerabilities of the current regime, CNOC has limited its proposed changes to those that are strictly necessary to ensure the effectiveness of the Q of S regime going forward.

13. The next part of this submission is divided into seventeen subsections in response to each of the Commission's questions for comment, as set out in TNC 2017-49.

2.0 RESPONSE TO THE TNC 2017-49 QUESTIONS

2.1 Q1. How has the current Q of S regime performed in fostering competition?

14. Public reports on Q of S indicators and related reporting letters[15] provide valuable insight into the performance of the current Q of S regime. CNOC has carefully reviewed these reports from 2012 to the fourth quarter of 2016 and has drawn two conclusions from this analysis.

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[11] Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives, P.C. 2006-1534, 14 December 2006, SOR/2006-355, Canada Gazette Part II, Vol. 140. No. 26, 27 December 2006 ("Policy Direction").

[12] TD 2005-20, at para 41.

[13] *Id.*, at Appendix B.

[14] *Id.*, at Section III.

[15] See http://www.crtc.gc.ca/PartVII/eng/2010/8660/c12_201000406.htm.a

15. First, with a few notable exceptions addressed below, the reporting carriers generally seem to meet the majority of the Q of S indicators on a consistent or semi-consistent basis. In other words, the ILECs only seem to occasionally fail to meet a Q of S standard for a given indicator on a month to month basis. In CNOC's view, this suggests that the Q of S indicators and applicable standards are generally appropriately defined and the RRP is for the most part, reasonably well-calibrated to provide adequate compliance incentives to the ILECs.

16. Second, and with respect to the exceptions referenced above, CNOC notes that the vast majority of ILEC Q of S failures for the period of 2012 to 2016 are concentrated over two indicators:

- **Indicator 1.18** - Local Service Request (LSR) Turnaround Time Met; and
- **Indicator 2.8A** - New Loop Status Provided to Competitors.

17. In fact, month after month and year after year, the ILECs seem to consistently fail to meet minimum service standards with respect to these Q of S indicators. Although this is undoubtedly the most obvious observable trend based on the 2012-2016 data, CNOC must also emphasize that certain competitors have experienced repeated failures relating to other indicators. For instance, over the course of this period, CNOC members Colba.Net Inc., Distributel Communications Limited, Execulink Telecom Inc., Fibernetics Inc. (inclusive of Durham.net Inc. dba Telnet Communications) and Primus Telecommunications Canada Inc. have experienced repeated and prolonged Bell Canada and TELUS Communications Company Q of S failures relating to a number of indicators including:

- **Indicator 1.8 –** New Unbundled Type A and B Loop Order Service Intervals Met;
- **Indicator 1.13** - Unbundled Type A and B Loop Order Late Completions;
- **Indicator 1.14** - Unbundled Type A and B Loops Held Orders;
- **Indicator 2.7** - Competitor Out-of-Service Trouble Reports Cleared within 24 hours;
- **Indicator 2.7A** - Competitor Out-of-Service Trouble Report Late Clearances;

- **Indicator 2.9 –** Competitor Degraded Trouble Reports Cleared within 48 hours; and

- **Indicator 2.12 –** Service Failures within First 30 days.

18. Based on this evidence, the *status quo* sometimes forces competitors to endure prolonged periods where service levels are provisioned below minimum standards. In CNOC's view, these repeated and prolonged Q of S failures reveal that incumbents must be subject to additional incentives to ameliorate service levels following multiple successive Q of S failures. Fortunately, this vulnerability of the current regime can be eliminated by way of a repeat failure mechanism – a simple, straightforward and effective solution that is described later in this submission.

19. Overall, CNOC submits that the current regime has fostered levels of competition in the retail markets for local exchange services that simply would not exist in the absence of the Q of S framework established in TD 2005-20. Likewise, CNOC expects service standards would plummet for virtually all Q of S indicators if the Q of S regime was eliminated.

2.2 Q.2. Are market forces sufficient to ensure a high level of service or are Q of S regulatory measures required?

20. Market forces are incapable of ensuring a high level of wholesale service for local exchange services and wholesale HSA services. In the absence of a Q of S regime, incumbents are merely obliged to comply with the terms and conditions of their wholesale service tariffs. Tariffs do not address critical aspects of service provisioning such as intervals for installations, repairs and disconnections – nor should they.

21. Although CNOC firmly believes that it is in the interests of incumbents to embrace the wholesale side of their businesses, it is woefully apparent that incumbents do not generally share this belief. In theory, an incumbent with a proven track record of delivering consistently high Q of S levels could leverage this reputation to attract additional wholesale customers and business via both tariffed arrangements and off-tariff commercial arrangements. Wholesale services are also a lucrative business that can meaningfully supplement retail revenues. Moreover, wholesale services are a vehicle that carriers can utilize to efficiently sell vast amounts of capacity that would otherwise lay fallow.

22. Notwithstanding all of the legitimate reasons why incumbents ought to be incented to provide high Q of S levels, in practice, incumbents appear to believe that they stand to gain more from delivering poor Q of S levels, whether wilfully or negligently, than making an effort to meet or exceed minimum wholesale service standards. After all, every incumbent failure to perform at the wholesale level frustrates a competitor's capacity to perform at the retail level. As a result, poor wholesale Q of S levels lead to competitive advantages for incumbents.

23. It also bears noting that meeting or exceeding minimum Q of S standards sometimes requires a corresponding minimal level of investment in process and operational resources. Not surprisingly, incumbents tend to prefer to allocate these investments to the retail side of their operations, thereby depriving wholesale departments of the tools needed to deliver adequate Q of S performance levels.

24. The clearest testament to a lack of market forces associated with Q of S performance is the fact that CNOC members continually face Q of S issues affecting various aspects of wholesale service provisioning associated with local exchange services and wholesale HSA services. With respect to local exchange services, Q of S reporting data reveals that incumbents repeatedly fail certain Q of S indicators despite the presence of a RRP.[16] Based on this fact alone, it is reasonable to assume that Q of S performance would erode even further if the RRP was eliminated and Q of S standards were left to market forces. On the wholesale HSA service side, competitors face an omnipresent risk of delays relating to service order activations, installations, repairs and disconnections.

25. Abroad, other national communications regulators have recognized that market forces are insufficient to ensure a high level of Q of S for essential wholesale service. For example, Ofcom, the communications regulator of the United Kingdom ("UK"), recently launched its own consultation setting out proposals for regulating the quality of Openreach's[17] services that are used by telecommunications providers to provide telephone and broadband services to customers and

[16] See Section 2.1 of CNOC's intervention.

[17] Openreach is the subsidiary of BT Group that owns and operates the telecommunications facilities that constitute the national broadband and telephone network in the United Kingdom.

businesses. Notably, the consultation notice issued by Ofcom included the following statements regarding Openreach's Q of S track record and the need for regulatory intervention:

> "1.11 Until relatively recently, we had expected that the requirement for Openreach to provide equivalent quality of service to all telecoms providers would have incentivised it to perform to a good standard.
>
> 1.12 Although we would have preferred if Openreach itself had delivered high service quality because of its own focus on customer needs, we are having to step in because service outcomes are not sufficient to ensure that telecoms providers can compete effectively in the retail market and that customers do not suffer harm. This consultation document sets out our latest thinking in this area. The standards we propose set a minimum baseline, and we expect BT not just to achieve them, but to aim beyond them."[18]

26. The UK example proves that market forces alone are incapable of ensuring high Q of S standards. Market forces will fail to produce high Q of S performance levels even when there is a regulatory obligation for the incumbent provider to treat its retail operations and wholesale competitors on an equal basis.

27. For all of these reasons, CNOC submits that market forces are insufficient to ensure a high level of service for local exchange services and wholesale HSA services. Q of S regulatory measures are therefore required for both of these wholesale services.

2.3 Q.3. If a competitor Q of S regime is required, what should its objectives be?

28. The objectives of the competitor Q of S regime should be to ensure that incumbent providers have appropriate incentives to comply with minimum Q of S performance standards with respect to essential wholesale services. In turn, greater wholesale Q of S performance will increase competitors' capacity to compete in retail markets – to the full extent envisioned by the Commission, competitors and consumers when the Commission first introduced the respective regulatory policies associated with local exchange services and wholesale HSA services.

[18] "Quality of Service for WLR, MPF and GEA: Consultation on proposed quality of service remedies", Ofcom, 31 March 2017, <https://www.ofcom.org.uk/__data/assets/pdf_file/0033/99645/QoS-WLR-MPF-GEA.pdf>

2.4 Q.4. If other regulatory measures are required, what should they include?

29. In addition to a competitor Q of S regime that applies to local exchange services and wholesale HSA services, CNOC recommends that the Commission apply two regulatory measures intended to address anti-competitive conduct.

30. First, CNOC recommends that the Commission continue its practice of prohibiting limitations of liability contained in terms and conditions of approved incumbent tariffs wherever such limitations relate to an incumbent's deliberate fault, gross negligence, anti-competitive conduct or breach of contract where the breach is a result of that incumbent's gross negligence. Liability in all such circumstances must be unlimited to deter negligent and anti-competitive conduct while also fully compensating competitors for losses attributable to the same.

31. Second, CNOC recommends that the Commission utilize its Administrative Monetary Penalties ("AMPs") powers to address instances of anti-competitive conduct that are in contravention of the *Act*. These powers are among the Commission's most effective tools for deterrence. Thus, the Commission should not hesitate to apply AMPs as a means to address anti-competitive conduct, including any gaming or wilful disregard of the Commission's Q of S regime. Doing so will send a clear message that anti-competitive conduct will not be tolerated.

2.5 Q5. Does the current RRP for competitors remain appropriate? Does it provide adequate incentive to maintain a high QoS?

32. The current RRP for competitors remains appropriate. Generally, the RRP strikes an appropriate balance between creating meaningful incentives for compliance with Q of S standards without being punitive to the ILECs.

33. However, a repeat failure mechanism should be introduced to curb repeated and prolonged non-compliance with specific Q of S indicators. As demonstrated in Section 2.1, competitors continuously struggle to obtain adequate Q of S levels with respect to certain indicators. Fortunately, this can be resolved in a straightforward manner that progressively increases incentives for compliance without becoming punitive – especially relative to the discrimination that a competitor endures from an incumbent's repeated failure to deliver bare minimum service standards. To this end, CNOC proposes the same repeat failure mechanism that was initially

proposed in the CNOC Cable Q of S Application.[19] The applicable rebate for a given indicator will be multiplied by that indicator's repeat factor. Initially, the repeat factor is set at one and is increased by one for every month in which the incumbent reports a below standard Q of S result, up to a maximum of six months. Once the incumbent delivers service at the approved standard for one month, the repeat factor is reset to one. This repeat failure mechanism should apply to all services covered by the Q of S regime.

34. The basic design of CNOC's repeat failure mechanic is based on the system proposed by the "Competitors"[20] in TD 2005-20,[21] but with two important adjustments that are designed to alleviate the Commission's concern that a mechanism of this sort might become punitive in effect.[22] These two changes are inspired by submissions of the ILECs in the proceedings leading to TD 2005-20 that address why the proposed repeat failure mechanism of the Competitors was perceived by them to be unreasonable and punitive[23].

35. First, CNOC is recommending that the repeat factor should be subject to a maximum cap of six so that rate rebates do not increase *ad infinitum*. This addresses the ILEC concern summarized at paragraph 92 of TD 2005-20.

36. Second, CNOC is proposing a repeat factor reset as soon as an incumbent meets the requirements of an indicator after it has failed to do so for one or more preceding periods. In other words, once the service standard is met for one month (as opposed to the proposed repeat failure mechanism of the Competitors in TD 2005-20, which required a service standard to be maintained for three consecutive months), the repeat factor is reset to one. This aspect of CNOC's proposed repeat failure mechanism addresses the ILEC concern described at paragraph 93 of TD 2005-20.

37. At the time, the ILECs did not raise any further arguments in opposition of a repeat failure mechanism beyond those addressed by CNOC's adjustments to the proposal of the TD 2005-20 "Competitors".

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19 CNOC Cable Q of S Application, at para 22
20 Namely, Allstream, Call-Net, FCI Broadband, and LondonConnect.
21 TD 2005-20, at paras 87-89.
22 *Id*., at para. 99.
23 *Id*., at paras. 91-93.

38. The harms associated with repeated Q of S failures compound over time. The repeat failure mechanism proposed by CNOC will adjust incentives for Q of S compliance in proportion to the competitive harms that have already been incurred as a result of successive failures by the incumbent to deliver minimum service standards. Thus, the repeat failure mechanism described in this section maintains just and reasonable rates, is not punitive and is therefore in accordance with guiding principle #6 of the guiding principles established in TD 2005-20, which, as CNOC argues below, should continue to underpin competitor Q of S regimes going forward.

2.6 Q6. If an RRP for competitors is required, are the guiding principles established in Telecom Decision 2005-20 still appropriate? If the existing guiding principles are no longer appropriate, what principles should be adopted?

39. CNOC submits that the guiding principles established in TD 2005-20 remain comprehensive, just and reasonable.

40. It may however be worthwhile to introduce a new guiding principle to acknowledge the role of company-wide indicators. Such a guiding principle could read as follows: "Company-wide Q of S indicators should be excluded from the RRP but may be tracked for monitoring purposes."

41. CNOC is fully aware of the Commission's decision in TD 2005-20 not to include company-wide Q of S indicators in the final local voice RRP.[24] The Commission found that to do so would cause redundancies with competitor-specific indicators in addition to contravening the guiding principle which states that the Q of S indicators to be included in the RRP should be measured on a competitor-by-competitor basis. CNOC does not dispute these findings. Including company-wide indicators in the RRP could unfairly punish incumbents and compensate competitors for service performance that is already accounted for by overlapping competitor-by-competitor indicators. However, the tracking of company-wide indicators outside of the RRP serves a very important purpose that was acknowledged by the Commission at paragraph 130 of TD 2005-20: comparison between Q of S results for competition-related indicators and retail Q of S indicators. This tracked information is extremely valuable for the purpose of reactively adjusting wholesale Q of S standards so that they match corresponding retail service standards.

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[24] *Id*., at para. 127.

42. Setting out the role of company-wide indicators by way of a guiding principle would serve to explicitly acknowledge and clarify the purpose of these indicators going forward.

2.7 Q7. What indicators, if any, should be included in the RRP for competitors? Include details and rationale about any proposed new or revised indicators, such as proposed indicator names and definitions, and service standards.

2.7.1 Q of S indicators for local exchange services

43. All Q of S indicators applicable to local exchange services should continue to apply. CNOC submits that these indicators are comprehensive and subject to appropriate standards that remain relevant for retail service provisioning. To the extent that a particular service becomes forborne from regulation, it would be appropriate to eliminate corresponding Q of S indicators once forbearance is completed.

2.7.2 Q of S indicators for wholesale HSA services

44. For wholesale HSA services, CNOC recommends a set of four company-wide indicators, nine competitor-specific leading indicators and four competitor-specific trailing indicators. All of these indicators were developed and proposed as requested relief in the CNOC Cable Q of S Application. With reference to the TD 2005-20 Q of S template, these indicators were thoroughly described and standards were carefully calibrated to address the acute Q of S issues that competitors endured throughout virtually all stages of wholesale HSA service provisioning sourced by cable carriers. Today, these indicators, when paired with a RRP, continue to offer a comprehensive Q of S framework that ensures adequate service levels that competitors can then utilize as an input to provide their own unique and innovative services to retail customers.

45. In order for the RRP for wholesale HSA services to create appropriate incentives for incumbents to adhere to standards for wholesale service provisioning that are the same as the standards they apply to their own retail operations, the measurement methods for a number of the Q of S indicators should employ the retail service standards adopted by the incumbents as the reference point for the definition of the corresponding Q of S indicators. Otherwise, the incumbents could circumvent the indicators (and the financial consequences of the RRP for non-compliance in the case of competitor-specific indicators) simply by booking wholesale activity windows that

are excessively long relative to the corresponding retail activity windows. Under such a scenario, as long as the wholesale windows are not missed the indicator would be considered to have been met, even though incumbents' wholesale customers would be significantly disadvantaged compared to their retail operations.

46. For this reason, it is essential for retail standard intervals to be embedded in a number of the proposed competitor-specific Q of S indicators. Accordingly, CNOC requests that the Commission investigate the incumbents' service standards for their retail operations. This inquiry is required because if the Commission accepts the Q of S indicators proposed by CNOC, it will also have to rule on the applicable service standards based on information yet to be provided by the incumbents as CNOC is not privy to this information. Such an inquiry should be conducted over the course of the follow-up proceeding contemplated at paragraph 13 of TNC 2017-49. Moreover, as retail standards change, wholesale standards should be adjusted automatically. The Company-wide Q of S indicators proposed by CNOC will be essential tools for monitoring changes in retail standards and matching wholesale standards accordingly.

47. The trailing indicators proposed by CNOC are modeled upon similar indicators that were included in the TD 2005-20 local voice RRP.[25] Trailing or secondary Q of S indicators are paired with main or primary (i.e., leading) competitor-specific indicators. When an incumbent fails to meet the standard of a main Q of S indicator, the trailing indicator becomes active and captures the incumbent's ability to satisfy the main indicator within a given time frame after the original due date.

<u>Company-wide Q of S indicators for wholesale HSA services</u>

48. CNOC is proposing the following company-wide Q of S indicators for wholesales HSA services, detailed fully below:

- **Indicator 1.1** - Competitor Installation Appointments Met - Dispatch Required

[25] For example, in TD 2005-20, indicators 1.10A, 1.11A and 2.7A are examples of trailing indicators.

- **Indicator 1.2** - Competitor Installation Appointments Met - Dispatch Not Required
- **Indicator 1.3 –** Competitor Repair Appointments Met – Dispatch Required
- **Indicator 1.4 –** Competitor Repair Appointments Met – Dispatch Not Required

49. These indicators will allow the Commission to monitor an incumbent's overall performance relating to competition-related Q of S indicators compared to the same incumbent's retail Q of S performance for corresponding indicators.

- **Indicator 1.1** - Competitor Installation Appointments Met - Dispatch Required[26]
    - **Definition**: The total number of installation appointments requiring incumbent technician dispatches booked and the number met, with percentage of those met relative to the total booked for customers who are also competitors.
    - **Measurement Method**: Completed orders are sorted to determine the actual number and percentage completed on the appointed date.
    - **Geographical Basis**: Company-wide, no geographic distinction.
    - **Standard**: 90% or more[27].
    - **Reporting Format**: Indicator 1.1 – Competitor Installation Appointments Met – Dispatch Required.
    - **Business Rule**: Installations also include inward transfers where an incumbent technician dispatch is required.[28]

- **Indicator 1.2** - Competitor Installation Appointments Met - Dispatch Not Required[29]
    - **Definition**: The total number of installation appointments not requiring incumbent technician dispatches booked and the number met, with percentage of those met relative to the total booked for customers who are also competitors.

[26] This indicator is modeled after indicator 1.6 of TD 2005-20, Appendix B.
[27] 90% is the standard that was applied for almost all of the TD 2005-20 Q of S indicators. Based on this model, a 90% standard is recommended for all of CNOC's proposed TPIA indicators.
[28] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.
[29] This indicator is modeled after indicator 1.6 of TD 2005-20, Appendix B.

- **Measurement Method**: Completed orders are sorted to determine the actual number and percentage completed on the appointed date.
- **Geographical Basis**: Company-wide, no geographic distinction.
- **Standard**: 90% or more.
- **Reporting Format**: Indicator 1.2 – Competitor Installation Appointments Met – Dispatch Not Required.
- **Business Rule**: Installations also include inward transfers where no incumbent technician dispatch is required.[30]

- **Indicator 1.3 –** Competitor Repair Appointments Met – Dispatch Required[31]
  - **Definition:** The total number of repair appointments requiring incumbent technician dispatches booked and the number met, with percentage of those met relative to the total booked for customers who are also competitors.
  - **Measurement Method**: Completed orders are sorted to determine the actual number and percentage completed on the appointed date.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 1.3 – Competitor Repair Appointments Met – Dispatch Required.

- **Indicator 1.4 –** Competitor Repair Appointments Met – Dispatch Not Required[32]
  - **Definition:** The total number of repair appointments not requiring incumbent technician dispatches booked and the number met, with percentage of those met relative to the total booked for customers who are also competitors.
  - **Measurement Method**: Completed orders are sorted to determine the actual number and percentage completed on the appointed date.

[30] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.
[31] This indicator is modeled after indicator 2.6 of TD 2005-20, Appendix B.
[32] This indicator is modeled after indicator 2.6 of TD 2005-20, Appendix B.

- **Geographical Basis**: Company-wide, no geographic distinction.
- **Standard**: 90% or more.
- **Reporting Format**: Indicator 1.4 – Competitor Repair Appointments Met – Dispatch Not Required.

Competitor-specific Q of S indicators for wholesale HSA services

50. CNOC is proposing the following nine competitor-specific leading indicators and four competitor-specific trailing indicators. These indicators cover three critical aspects of wholesale HSA service provisioning: installations, repairs, and disconnections.

- **Indicator 2.1** – New Order Activation Service Interval Met – Dispatch Required
- **Indicator 2.2** – New Order Activation Service Interval Met – Dispatch Not Required
- **Indicator 2.3** – New Order Activation Confirmed Due Date Met – Dispatch Required
- **Indicator 2.3A** – New Order Activation Late Completions – Dispatch Required
- **Indicator 2.4** – New Order Activation Confirmed Due Date Met – Dispatch Not Required
- **Indicator 2.4A** – New Order Activation Late Completions – Dispatch Not Required
- **Indicator 2.5** – Repair Service Interval Met – Dispatch Required
- **Indicator 2.6** – Repair Service Interval Met – Dispatch Not Required
- **Indicator 2.7** – Repair Confirmed Due Date Met – Dispatch Required
- **Indicator 2.7A** – Repair Late Completions – Dispatch Required
- **Indicator 2.8** – Repair Confirmed Due Date Met – Dispatch Not Required
- **Indicator 2.8A** – Repair Late Completions – Dispatch Not Required
- **Indicator 2.9** – Disconnection Service Interval Met

51. Poor installation service standards are characterized by delayed incumbent installations or failure to respect a confirmed installation window. In either case, the competitor's retail customer

is harmed. For instance, installation delays may create prolonged periods whereby a customer does not have the Internet access needed to work from home or carry on various aspects of their day to day lives. It also bears noting that customers must often take time off work to provide incumbent technicians with access to their premises so that installation work can be completed. In these circumstances, failure to respect a set installation window creates considerable inconvenience for the customer. Installation Q of S issues frustrate, inconvenience and harm a competitor's customer at the very beginning of the commercial relationship between them and the competitor. For this reason, installation Q of S problems are especially harmful to competition.

52. For similar reasons, repair Q of S issues can inconvenience a competitor's customers profoundly. Service outages or performance issues that are attributable to incumbent facilities can only be resolved via incumbent intervention. Delayed incumbent repairs or failure to respect a confirmed appointment for repairs can prolong service outages and performance issues and inconvenience end-users who must make arrangements to provide access to an incumbent technician.

53. From the perspective of a competitor's retail customer, service issues that are attributable to the competitor or to the upstream wholesale provider are indistinguishable. As a result, the customer will generally hold the competitor responsible for an incumbent provider's poor quality of service. When such poor quality of service ultimately leads the customer to switch providers, the incumbent then gains an opportunity to win-back the customer. Adoption of the indicators proposed in this section, along with the RRP recommended by CNOC will break this unfortunate cycle.

54. CNOC is also recommending Q of S indicators relating to disconnections. Incumbent disconnection process delays can result in unnecessary expense for competitors who are continually billed up to and until the wholesale HSA service is disconnected, irrespective of whether service is actually provided to a retail customer over the access facilities in question and whether the competitor can bill for that service.

55. CNOC's proposed competitor-specific Q of S indicators are as follows:

- **Indicator 2.1 –** New Order Activation Service Interval Met – Dispatch Required[33]
  - **Definition**: The percentage of time that due dates relating to orders for installations requiring incumbent technician dispatches are met within the applicable standard service interval.
  - **Measurement Method:** Completed installation orders requiring incumbent technician dispatches are compiled and the percentage of those that were completed within the applicable standard service interval is reported. Orders for which the requested due date is beyond the applicable standard service interval are excluded from this measure.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.1 – New Order Activation Service Interval Met – Dispatch Required.
  - **Numerator:** Number of orders for installations requiring incumbent technician dispatches that have met the standard interval due date for the month.
  - **Denominator:** Total number of orders for installations requiring incumbent technician dispatches for which a due date was assigned for the month. Orders for which the requested due date is beyond the applicable standard interval are excluded from this measure.
  - **Business Rules:**
    - Competitor by Competitor.
    - Include orders that cannot be completed on an agreed expedited due date. These orders are counted as missed in the calculation of the indicator.
    - Exclude from the measurement, those installation orders where confirmed due dates are missed due to causes attributable to competitors or their customers.[34]

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[33] This indicator is modeled after indicators 1.8, 1.9 and 1.10 of TD 2005-20, Appendix B.

[34] The only reason for such exclusions is if a competitor does not advise its customer of an agreed dispatch window for an installation or the customer or its agent does not show up for the installation during the agreed dispatch window. This applies to indicators 2.1 and 2.2.

        - Installations also include inward transfers where an incumbent technician dispatch is required.[35]

- **Indicator 2.2 –** New Order Activation Service Interval Met – Dispatch Not Required[36]
    - **Definition**: The percentage of time that due dates relating to orders for installations not requiring incumbent technician dispatches are met within the applicable standard service interval.
    - **Measurement Method:** Completed installation orders not requiring incumbent technician dispatches are compiled and the percentage of those that were completed within the applicable standard service interval is reported. Orders for which the requested due date is beyond the applicable standard service interval are excluded from this measure.
    - **Geographical Basis**: Company-wide, no geographic distinction.
    - **Standard**: 90% or more.
    - **Reporting Format**: Indicator 2.2 – New Order Activation Service Interval Met – Dispatch Not Required.
    - **Numerator:** Number of orders for installations not requiring incumbent technician dispatches that have met the standard interval due date for the month.
    - **Denominator:** Total number of orders for installations not requiring incumbent technician dispatches for which a due date was assigned for the month. Orders for which the requested due date is beyond the applicable standard interval are excluded from this measure.
    - **Business Rules:**
        - Competitor by Competitor.
        - Include orders that cannot be completed on an agreed expedited due date. These orders are counted as missed in the calculation of the indicator.

[35] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.

[36] This indicator is modeled after indicators 1.8, 1.9 and 1.10 of TD 2005-20, Appendix B.

        - Exclude from the measurement, those installation orders where confirmed due dates are missed due to causes attributable to competitors or their customers.
        - Installations also include inward transfers where no incumbent technician dispatch is required.[37]

- **Indicator 2.3 –** New Order Activation Confirmed Due Date Met – Dispatch Required
    - **Definition**: The percentage of occurrences that confirmed due dates relating to orders for installations requiring incumbent technician dispatches are met.
    - **Measurement Method:** Completed installation orders requiring incumbent technician dispatches are compiled and the percentage of those that were completed by the confirmed due dates is reported. Orders for which a change to a due date is requested are excluded from this measure.
    - **Geographical Basis**: Company-wide, no geographic distinction.
    - **Standard**: 90% or more.
    - **Reporting Format**: Indicator 2.3 – New Order Activation Confirmed Due Date Met – Dispatch Required.
    - **Numerator:** Number of orders for installations requiring incumbent technician dispatches that have met the confirmed due date for the month.
    - **Denominator:** Total number of orders for installations requiring incumbent technician dispatches for which a confirmed due date was assigned for the month. Orders for which a change to a confirmed due date is requested are excluded from this measure.
    - **Business Rules:**
        - Competitor by Competitor.
        - Include orders that cannot be completed on an agreed expedited due date. These orders are counted as missed in the calculation of the indicator.

[37] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.

- Exclude from the measurement, those installation orders where confirmed due dates are missed due to causes attributable to competitors or their customers.[38]
- Installations also include inward transfers where an incumbent technician dispatch is required.[39]
- Incumbent technician dispatches outside of a scheduled installation window would not be considered completed installations even if the technician performs the installation with customer's consent.[40]

- **Indicator 2.3A –** New Order Activation Late Completions – Dispatch Required
  - **Definition:** The percentage of orders for installations requiring incumbent technician dispatches that missed the confirmed due date, which are completed within three days of the due date.
  - **Measurement Method:** Completed installation orders requiring incumbent technician dispatches that missed their confirmed due dates are compiled, and the percentage of those that were completed within three days of their respective confirmed due dates is reported.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.3A – New Order Activation Late Completions – Dispatch Required.
  - **Numerator:** Total number of orders for installations requiring incumbent technician dispatches in the month that missed the confirmed due date, which were completed within three days of the confirmed due date.
  - **Denominator:** Total number of orders for installations requiring incumbent technician dispatches in the month for which a confirmed due date was missed.

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[38] The only reason for such exclusions is if a competitor does not advise its customer of an agreed dispatch window for an installation or the customer or its agent does not show up for the installation during the agreed dispatch window. This applies to indicators 2.3, 2.3A, 2.4 and 2.4A.

[39] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.

[40] This rule recognizes the customer inconvenience created by a missed installation window.

- **Business Rules:**
    - Competitor by Competitor.
    - Include orders not meeting the standard in indicator 2.3.
    - Exclude from the measurement, those installation orders where confirmed due dates are missed due to causes attributable to competitors or their customers.
    - Installations also include inward transfers where an incumbent technician dispatch is required.[41]
    - Incumbent technician dispatches outside of a scheduled installation window would not be considered completed installations even if the technician performs the installation with customer's consent.[42]

- **Indicator 2.4 –** New Order Activation Confirmed Due Date Met – Dispatch Not Required
    - **Definition**: The percentage of time that confirmed due dates relating to orders for installations not requiring incumbent technician dispatches are met.
    - **Measurement Method:** Completed installation orders not requiring incumbent technician dispatches are compiled and the percentage of those that were completed by the confirmed due dates is reported. Orders for which a change to a due date is requested are excluded from this measure.
    - **Geographical Basis**: Company-wide, no geographic distinction.
    - **Standard**: 90% or more.
    - **Reporting Format**: Indicator 2.4 – New Order Activation Confirmed Due Date Met – Dispatch Not Required.
    - **Numerator:** Number of orders for installations requiring incumbent technician dispatches that have met the confirmed due date for the month.
    - **Denominator:** Total number of orders for installations requiring incumbent technician dispatches for which a confirmed due date was assigned for the month.

[41] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.
[42] This rule recognizes the customer inconvenience created by a missed installation window.

Orders for which a change to a confirmed due date is requested are excluded from this measure.

- **Business Rules:**
  - Competitor by Competitor.
  - Include orders that cannot be completed on an agreed expedited due date. These orders are counted as missed in the calculation of the indicator.
  - Exclude from the measurement, those installation orders where confirmed due dates are missed due to causes attributable to competitors or their customers.
  - Installations also include inward transfers where no incumbent technician dispatch is required.[43]

- **Indicator 2.4A –** New Order Activation Late Completions – Dispatch Not Required
  - **Definition:** The percentage of orders for installations not requiring incumbent technician dispatches that missed the confirmed due date, which are completed within three days of the due date.
  - **Measurement Method:** Completed installation orders not requiring incumbent technician dispatches that missed their confirmed due dates are compiled, and the percentage of those that were completed within three days of their respective confirmed due dates is reported.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.4A – New Order Activation Late Completions – Dispatch Not Required.
  - **Numerator:** Total number of orders for installations not requiring incumbent technician dispatches in the month that missed the confirmed due date, which were completed within three days of the confirmed due date.

[43] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.

- **Denominator:** Total number of orders for installations not requiring incumbent technician dispatches in the month for which a confirmed due date was missed.
- **Business Rules:**
  - Competitor by Competitor.
  - Include orders not meeting the standard in indicator 2.4.
  - Exclude from the measurement, those installation orders where confirmed due dates are missed due to causes attributable to competitors or their customers.
  - Installations also include inward transfers where no incumbent technician dispatch is required.[44]

- **Indicator 2.5 –** Repair Service Interval Met – Dispatch Required
  - **Definition**: The percentage of time that due dates relating to the clearing of trouble reports requiring incumbent technician dispatches are met within the applicable standard service interval.
  - **Measurement Method:** Cleared trouble reports requiring incumbent technician dispatches are compiled and the percentage of those that were completed within the applicable standard service interval is reported. Trouble reports for which the requested due date is beyond the applicable standard service interval are excluded from this measure.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.5 – Repair Service Interval Met – Dispatch Required.
  - **Numerator:** Number of trouble reports cleared requiring incumbent technician dispatches that have met the standard interval due date for the month.
  - **Denominator:** Total number of trouble reports cleared requiring incumbent technician dispatches for which a due date was assigned for the month. Trouble

[44] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.

reports for which the requested due date is beyond the applicable standard service interval are excluded from this measure.

- **Business Rules:**
  - Competitor by Competitor.
  - Include cleared reports that cannot be cleared on an agreed expedited due date. These trouble reports are counted as missed in the calculation of the indicator.
  - Exclude from the measurement, those trouble reports where confirmed due dates are missed due to causes attributable to competitors or their customers.[45]
  - Incumbent technician dispatches outside of a scheduled repair window would not be cleared trouble reports even if the technician performs the repairs with customer's consent.[46]

- **Indicator 2.6 –** Repair Service Interval Met – Dispatch Not Required
  - **Definition**: The percentage of time that due dates relating to the clearing of trouble reports not requiring incumbent technician dispatches are met within the applicable standard service interval.
  - **Measurement Method:** Cleared trouble reports not requiring incumbent technician dispatches are compiled and the percentage of those that were completed within the applicable standard service interval is reported. Trouble reports for which the requested due date is beyond the applicable standard service interval are excluded from this measure.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.6 – Repair Service Interval Met – Dispatch Not Required.

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45 The only reason for such exclusions is if a competitor does not advise its customer of an agreed dispatch window for an installation or the customer or its agent does not show up for the installation during the agreed dispatch window. This applies to indicators 2.5 and 2.6.

46 This rule recognizes the customer inconvenience created by a missed repair window.

- **Numerator:** Number of trouble reports cleared requiring incumbent technician dispatches that have met the standard interval due date for the month.
- **Denominator:** Total number of trouble reports cleared requiring incumbent technician dispatches for which a due date was assigned for the month. Trouble reports for which the requested due date is beyond the applicable standard service interval are excluded from this measure.
- **Business Rules:**
  - Competitor by Competitor.
  - Include cleared reports that cannot be cleared on an agreed expedited due date. These trouble reports are counted as missed in the calculation of the indicator.
  - Exclude from the measurement, those trouble reports where confirmed due dates are missed due to causes attributable to competitors or their customers.

- **Indicator 2.7 –** Repair Confirmed Due Date Met – Dispatch Required
  - **Definition**: The percentage of time that confirmed due dates relating to the clearing of trouble reports requiring incumbent technician dispatches are met.
  - **Measurement Method:** Cleared trouble reports requiring incumbent technician dispatches are compiled and the percentage of those that were completed by the confirmed due dates is reported. Trouble reports for which a change to a due date is requested are excluded from this measure.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.7 – Repair Confirmed Due Date Met – Dispatch Required.
  - **Numerator:** Number of cleared trouble reports requiring incumbent technician dispatches that have met the confirmed due date for the month.
  - **Denominator:** Total number of cleared trouble reports requiring incumbent technician dispatches for which a confirmed due date was assigned for the month.

Trouble reports for which a change to a confirmed due date is requested are excluded from this measure.

- **Business Rules:**
  - Competitor by Competitor.
  - Include trouble reports that cannot be completed on an agreed expedited due date. These trouble reports are counted as missed in the calculation of the indicator.
  - Exclude from the measurement, those trouble reports where confirmed due dates are missed due to causes attributable to competitors or their customers.[47]
  - Incumbent technician dispatches outside of a scheduled repair window would not be cleared trouble reports even if the technician performs the repairs with customer's consent.[48]

- **Indicator 2.7A –** Repair Late Completions **–** Dispatch Required
  - **Definition:** The percentage of trouble reports requiring incumbent technician dispatches that missed the confirmed due date, which are completed within three days of the due date.
  - **Measurement Method:** Cleared trouble reports requiring incumbent technician dispatches that missed their confirmed due dates are compiled, and the percentage of those that were completed within three days of their respective confirmed due dates is reported.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.7A – Repair Late Completions – Dispatch Required.

[47] The only reason for such exclusions is if a competitor does not advise its customer of an agreed dispatch window for an installation or the customer or its agent does not show up for the installation during the agreed dispatch window. This applies to indicators 2.7, 2.7A, 2.8 and 2.8A.

[48] This rule recognizes the customer inconvenience created by a missed repair window.

- **Numerator:** Total number of trouble tickets requiring incumbent technician dispatches in the month that missed the confirmed due date, which were cleared within three days of the confirmed due date.
- **Denominator:** Total number of trouble tickets requiring incumbent technician dispatches in the month for which a confirmed due date was missed.
- **Business Rules:**
  - Competitor by Competitor.
  - Include trouble reports not meeting the standard in indicator 2.7.
  - Exclude from the measurement, those trouble reports where confirmed due dates are missed due to causes attributable to competitors or their customers.
  - Incumbent technician dispatches outside of a scheduled repair window would not be cleared trouble reports even if the technician performs the repairs with customer's consent.[49]

- **Indicator 2.8 –** Repair Confirmed Due Date Met – Dispatch Not Required
  - **Definition**: The percentage of time that confirmed due dates relating to the clearing of trouble reports not requiring incumbent technician dispatches are met.
  - **Measurement Method:** Cleared trouble reports not requiring incumbent technician dispatches are compiled and the percentage of those that were completed by the confirmed due dates is reported. Trouble reports for which a change to a due date is requested are excluded from this measure.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.8 – Repair Confirmed Due Date Met – Dispatch Not Required.
  - **Numerator:** Number of cleared trouble reports not requiring incumbent technician dispatches that have met the confirmed due date for the month.

[49] This rule recognizes the customer inconvenience created by a missed repair window.

- **Denominator:** Total number of cleared trouble reports not requiring incumbent technician dispatches for which a confirmed due date was assigned for the month. Trouble reports for which a change to a confirmed due date is requested are excluded from this measure.
- **Business Rules:**
  - Competitor by Competitor.
  - Include trouble reports that cannot be completed on an agreed expedited due date. These trouble reports are counted as missed in the calculation of the indicator.
  - Exclude from the measurement, those trouble reports where confirmed due dates are missed due to causes attributable to competitors or their customers.

- **Indicator 2.8A –** Repair Late Completions – Dispatch Not Required
  - **Definition:** The percentage of trouble reports not requiring incumbent technician dispatches that missed the confirmed due date, which are completed within three days of the due date.
  - **Measurement Method:** Cleared trouble reports not requiring incumbent technician dispatches that missed their confirmed due dates are compiled, and the percentage of those that were completed within three days of their respective confirmed due dates is reported.
  - **Geographical Basis**: Company-wide, no geographic distinction.
  - **Standard**: 90% or more.
  - **Reporting Format**: Indicator 2.8A – Repair Late Completions – Dispatch Not Required.
  - **Numerator:** Total number of trouble tickets not requiring incumbent technician dispatches in the month that missed the confirmed due date, which were cleared within three days of the confirmed due date.
  - **Denominator:** Total number of trouble tickets not requiring incumbent technician dispatches in the month for which a confirmed due date was missed.
  - **Business Rules:**

        - Competitor by Competitor.
        - Include trouble reports not meeting the standard in indicator 2.8.
        - Exclude from the measurement, those trouble reports where confirmed due dates are missed due to causes attributable to competitors or their customers.

- **Indicator 2.9 –** Disconnection Service Interval Met
    - **Definition**: The percentage of time that due dates relating to orders for disconnections are met within the applicable standard service interval.
    - **Measurement Method:** Completed disconnection orders are compiled and the percentage of those that were completed within the applicable standard service interval is reported. Orders for which the requested due date is beyond the applicable standard service interval are excluded from this measure.
    - **Geographical Basis**: Company-wide, no geographic distinction.
    - **Standard**: 90% or more.
    - **Reporting Format**: Indicator 2.1 – Disconnection Service Interval Met.
    - **Numerator:** Number of orders for disconnections that have met the standard interval due date for the month.
    - **Denominator:** Total number of orders for disconnections for which a due date was assigned for the month. Orders for which the requested due date is beyond the applicable standard interval are excluded from this measure.
    - **Business Rules:**
        - Competitor by Competitor.
        - Include orders that cannot be completed on an agreed expedited due date. These orders are counted as missed in the calculation of the indicator.
        - Installations also include outward transfers.[50]

[50] Note: this includes all transfers (e.g. incumbent to competitor; competitor to incumbent; and competitor to competitor) that require incumbent involvement.

2.8 Q8. Should another mechanism be considered as an enforcement mechanism, either alone or in conjunction with the RRP for competitors?

56. As CNOC explained in Section 2.5, a new enforcement mechanism for repeat failures to achieve minimum Q of S standards should be implemented in conjunction with the RRP for competitors. The details of CNOC's repeat failure mechanism and the rationale underpinning this proposal is set out above in Section 2.5.

2.9 Q9. What criteria should be used to select the types of services, if any, that should be included in the competitor Q of S regime?

57. CNOC submits that services included in the competitor Q of S regime should satisfy two criteria: (1) those services should be mandated wholesale services (i.e. the services meet the Commission's essentiality test, as set out in Telecom Regulatory Policy CRTC 2015-326)[51]; and (2) those services must be deliverable at different Q of S performance levels.

2.10 Q10. What specific services should be subject to the regime?

58. As argued throughout the intervention, wholesale local exchange services and wholesale HSA services should be subject to the Q of S regime at the present time. CNOC also notes that these services satisfy the criteria proposed in Section 2.10, above. The Commission should also monitor complaints regarding other wholesale services, including wholesale roaming services, to determine in the near future whether, and if so, how such services should be included in the Q of S regime.

59. Finally, as a general rule, proactively subject all new regulated wholesale services that emerge (e.g. disaggregated wholesale HSA services) to an early Q of S analysis to determine the manner in which such services should be incorporated into the Q of S regime. Wherever there is a risk that not including such services could lead to significant roadblocks to competition, such services should be included in a Q of S regime as soon as they become available.

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[51] *Review of wholesale wireline services and associated policies,* Telecom Regulatory Policy CRTC 2015-326, 22 July 2015, at paras 24 to 53.

2.11 Q11. Should the competitor Q of S regime be expanded to include cable carriers, wireless carriers, small ILECs, and Northwestel? If so, should the competitor Q of S regime apply to all such carriers or should there be a threshold based on the size of the company and/or other factors?

60. The subsequent paragraphs describe which providers should be subject to the expanded Q of S regime, as recommended by CNOC.

61. For local exchange services, Bell Canada, MTS Inc. ("MTS"), Saskatchewan Telecommunications ("SaskTel"), Télébec, société en commandite ("Télébec"), TCC and Northwestel Inc. ("Northwestel") should be subject to the Q of S regime. The only reason Northwestel was excluded from the current Q of S regime is because it was not subject to mandated wholesale regulation at the time when TD 2005-20 was issued. Today, Northwestel provides regulated wholesale local exchange services in its incumbent territory in Canada's Far North.

62. For wholesale HSA services, all providers of such services should be subject to Q of S requirements. In other words, Bell Canada, MTS, SaskTel, Télébec, Northwestel, Bragg Communications Inc. carrying on business as Eastlink, Cogeco Cable Inc., RCCI, Shaw Cablesystems G.P., and Videotron G.P. should be subject to the Q of S regime.

63. As noted above, at this early stage in the regulation of these services, CNOC's ability to recommend meaningful Q of S indicators and a RRP for wholesale roaming services is limited. In the months following the final approval of terms and conditions associated with wholesale roaming services, CNOC recommends that the Commission closely monitor the Q of S performance levels of the national wireless carriers throughout all stages of the wholesale roaming service provisioning process. Tracking complaints relating to the performance levels over a set period of 1-2 years from the final approval of wholesale roaming service tariffs will allow the Commission to make informed decisions about whether, and if so, how, to include wholesale roaming services in the Q of S regime.

64. Finally, CNOC urges the Commission to ensure that any new regulated wholesale services that emerge are subjected to an early Q of S analysis to determine the manner in which such services should be incorporated into the Q of S regime.

2.12. Q12. Does the complaint-based system continue to be the best means of monitoring Q of S for small ILECs?

65. CNOC submits that the complaint-based system continues to be the best means of monitoring Q of S for small ILECs.

2.13 Q13. Does the exclusion application process continue to be required? If so, should any changes be made to the current process?

66. The exclusion application process continues be required as a feature of the expanded Q of S regime proposed by CNOC. CNOC submits that incumbents should not be held responsible for *force majeure* type events that prevent them from meeting standards for specific Q of S indicators. These exceptions are fair and reasonable so long as competitors have a procedural right to submit comments in response to Adverse Event applications submitted by incumbents. This right to submit comments ensures that interested parties have a right to be heard thereby preserving procedural fairness.

2.14 Q14. What, if any, reporting requirements should be imposed in the future?

67. The reporting requirements prescribed by the current Q of S regime[52] should be maintained and applied to all services encompassed in the revised Q of S regime resulting from this proceeding. In other words, the following reporting requirements should apply:

1. Incumbents must issue competition-related Q of S results on a quarterly basis;
2. Incumbents must file those results with the Commission, providing a copy of company-wide and competitor specific results to the relevant competitor, within 30 days of the last day of the applicable quarter and make any rate rebate payments to competitors within the same 30-day time period; and
3. Incumbents are required to file with the Commission, and provide to the relevant competitor, all supporting details associated with the determination of the Q of S results and the calculation of the rate rebate amounts.

[52] TD 2005-20, at para 86.

2.15 Q15. If reporting is required, which performance indicators should be included?

68. CNOC submits that all approved competitor-specific and company-wide Q of S indicators should be subject to the reporting requirements outlined in Section 2.14, above.

2.16 Q16. How should any changes to the regime be phased in or out, and what would be the best way to make the transition to a new regime?

69. If the Commission approves CNOC's recommendations, no transition would be necessary for the continuation of the Q of S framework governing local exchange services.

70. With respect to wholesale HSA services, CNOC proposes a transition period of 120 days. This figure is based on the submissions of the ILECs on the record of the proceeding leading to TD 2005-20 that 90 days would be sufficient to set up the necessary processes and procedures required to establish a final RRP for local exchange services.[53] CNOC submits that an additional 30 days, for a total of 120 days, is appropriate considering that unlike the situation in TD 2005-20, no interim Q of S regime exists for wholesale HSA services.

71. If the Commission determines that a longer period is necessary to implement the Q of S framework for wholesale HSA services on a final basis, CNOC requests that the Commission establish an interim Q of S regime to ensure that adequate Q of S levels are available to competitors leading up to the finalization of the RRP.

2.17 Q17. What is an appropriate time frame to begin a review of the new regime?

72. Going forward, regulatory reviews of the Q of S regime should be held every five years, preferably in conjunction with wholesale regulatory framework reviews as a matter of regulatory efficiency.

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[53] *Id.*, at para 216.

3.0 CNOC'S SUBMISSIONS ARE CONSISTENT WITH THE TELECOMMUNICATIONS POLICY OBJECTIVES AND THE POLICY DIRECTION

3.1 The Telecommunications Policy Objectives

73. CNOC submits that the submissions in this intervention further the telecommunications policy objectives set out in section 7 of the *Act*, as demonstrated in the subsequent paragraphs.

74. CNOC's recommendations facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions, pursuant to subsection 7(a) of the *Act*. A Q of S regime proposed by CNOC will ensure that competitors have high quality wholesale inputs for local exchange services and wholesale HSA services. In turn, high quality wholesale services dramatically increase a competitor's capacity to develop and provision high quality retail telecommunications services which meaningfully contribute to the Canadian telecommunications system.

75. CNOC's recommendations also promise to render reliable and affordable telecommunications services of high quality accessible to Canadians, in accordance with subsection 7(b) of the *Act*. Without regulatory Q of S controls for local exchange services and wholesale HSA services, the reliability and quality of competitors' retail telecommunications services is constrained by forces beyond their control: poor service standards delivered by upstream providers. CNOC's proposals would greatly reduce or eliminate this constraint by introducing fair and effective incumbent incentives for high wholesale Q of S standards.

76. In addition, CNOC's recommendations would greatly enhance the efficiency and competitiveness of Canadian telecommunications, pursuant to subsection 7(c) of the *Act.* Incumbents' retail operations do not face the Q of S issues that undermine competition that is reliant on wholesale inputs. CNOC's proposals would greatly reduce or eliminate these Q of S issues, which, in turn, places both incumbents and competitors on more equal competitive footing. Eliminating barriers to competition such as low wholesale Q of S performance is critical for

competition considering the overwhelming competitive advantages associated with status as an incumbent[54].

77. The above-cited benefits of CNOC's proposals in terms of promoting competitive retail telecommunications service markets characterized by reliable and affordable services naturally responds to the economic and social requirements of the users of these services, in furtherance of subsection 7(h) of the *Act*.

78. Finally, CNOC submits that the proposals set out in this intervention request regulatory intervention that is efficient and effective, in accordance with subsection 7(f) of the *Act*. CNOC has gone to great lengths to ensure that all aspects of the proposed Q of S are properly calibrated to achieve the intended regulatory objectives, while being fair and minimally intrusive to incumbents.

3.2 The Policy Direction

79. CNOC's recommendations would result in regulation that is efficient and proportionate to its purpose and that interferes with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives, in accordance with subparagraph 1(a)(ii) of the Policy Direction for the same reasons explained above relating to subsection 7(f) of the *Act.*

80. The submissions in this intervention are also intended, in alignment with subparagraph 1(b)(ii) of the Policy Direction, to promote economically efficient entry by promoting an industry-wide expectation that new entrants can anticipate high Q of S standards relating to local exchange services and wholesale HSA services. In other words, would-be entrants will have confidence that high quality wholesale inputs will be available to facilitate their entry and subsequent expansion in these telecommunications service markets.

81. Finally, CNOC's proposals contemplate symmetrical regulation that is both competitively and technologically neutral, in accordance with subparagraph 1(b)(iii). For instance, CNOC's

[54] These advantages include size and scale, available capital, discounts from suppliers, brand recognition, knowledge of the market, full bundle product offerings as well as extensive access to municipal rights of way and support structures.

recommendation to include wholesale HSA service within the Q of S regime would apply equally to ILECs and cable carriers.

4.0 CONCLUSION

82. A modern Q of S regime is essential for competition fostered by local exchange services and wholesale HSA services. In the absence of a Q of S framework, incumbents do not respond to market forces that ought to theoretically incent high Q of S performance. A bolstered and expanded Q of S regime is therefore necessary to ensure that competitors can expect adequate wholesale Q of S performance that can then be utilized to deliver reliable and affordable high quality retail telecommunications services to consumers. As noted at the outset of this submission, a modern Q of S regime does not require the Commission to reinvent the wheel. The regime established by TD 2005-20 provides strong and proven foundations that can be easily adapted to today's market conditions and regulatory policies. In essence, CNOC views its intervention as a guide for updating and improving TD 2005-20. If approved by the Commission, these measures will have an immediate and long lasting positive effect on the levels of competition in downstream retail markets for local exchange services and Internet access services.

83. CNOC also urges the Commission to closely monitor the Q of S performance levels of the national wireless carriers based on complaints received that may apply throughout all stages of the wholesale roaming service provisioning process for a period of 1-2 years following final approval of the wholesale roaming service tariffs. This monitoring activity will allow the Commission to make informed decisions about whether and, if so, how to include wholesale roaming services in the Q of S regime.

84. The Commission should also monitor complaints regarding other wholesale services, beyond wholesale roaming services, to determine in the near future whether, and if so, how such services should be included in the Q of S regime.

85. Finally, wherever there is a risk that not including new services in the Q of S regime could lead to significant roadblocks to competition (which is, for example, the case for new disaggregated wholesale HSA interconnection services), such services should be included in a Q of S regime as soon as they become available.

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