



Telecom Decision CRTC 2017-287

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Northwestel Inc. – Application to review and vary certain determinations in Telecom Decision 2016-443 regarding Wholesale Connect service

*The Commission **denies** Northwestel’s application to review and vary certain determinations set out in Telecom Decision 2016-443 regarding Wholesale Connect service.*

Introduction

1. Northwestel Inc. (Northwestel) currently offers a wholesale service called Wholesale Connect, which enables competitors to transport telecommunications traffic across the portion of Northwestel’s network served by fibre or high-capacity microwave radio transport links. Competitors can use the Wholesale Connect service to connect their points of presence¹ in various communities and provide telecommunications services, such as residential and business Internet, voice, and wireless services, to their customers in those communities.
2. In Telecom Decision 2016-117, the Commission made certain changes to the costing assumptions applicable to wholesale high-speed access (HSA) services. The Commission subsequently issued Telecom Notice of Consultation 2016-180, in which it asked, among other questions, whether or not certain determinations set out in Telecom Decision 2016-117, including the determination regarding the annual capital unit cost change assumption² per megabit per second (Mbps) [the capital unit cost change] of -26.4%, apply to Northwestel’s Wholesale Connect service speeds.
3. In Telecom Decision 2016-443, the Commission set out its determinations with respect to the issues raised in Telecom Notice of Consultation 2016-180. The Commission found that the Wholesale Connect service is similar in many respects to wholesale HSA service, and noted that Northwestel did not dispute this finding. As a result, the Commission directed Northwestel to file a new tariff application, with updated cost studies for all Wholesale Connect service speeds, and apply -26.4% as

¹ A point of presence is a physical location that typically houses networking equipment such as servers and routers. It can also represent the demarcation or interface point between communicating entities.

² The annual capital unit cost change assumption reflects technological advancements, whereby suppliers are able to meet rising demands from traffic growth by increasing equipment capacity at a lower cost per unit.

the capital unit cost change for traffic-driven equipment³ and labour during the study period in these studies. The Commission also determined that any unit costs from previous cost studies are to be expressed in 2017 dollars, using the capital unit cost change of -26.4%.

Application

4. The Commission received an application from Northwestel, dated 6 February 2017, in which the company requested that the Commission review and vary certain determinations set out in Telecom Decision 2016-443.
5. Northwestel submitted that there is substantial doubt as to the correctness of Telecom Decision 2016-443, as demonstrated by the following:
 - The data upon which the -26.4% capital unit cost change was based was published in *Routers Report: Five-Year Forecast: 2011-2015* by the Dell'Oro Group (the 2011 Dell'Oro Report). This data was updated in a new report in 2016 (the 2016 Dell'Oro Report). The capital unit cost changes that are calculated using the updated data are significantly different from the previously calculated -26.4% change.
 - The Commission failed to ensure that the -26.4% capital unit cost change is consistent with the switching capacity assumption that the Commission mandated Northwestel to use in the company's updated cost studies, namely a maximum capacity of 10,000 Mbps.
 - The Commission failed to take into account the impact of annual changes in the purchasing power of the Canadian dollar relative to the U.S. dollar on the calculation of the capital unit cost change that should be used in the cost studies.
6. Northwestel submitted that, after taking into account the factors mentioned above, its company-specific requirements would be to have two capital unit cost changes instead of one, and proposed the following modifications:
 - Develop a capital unit cost change to restate Northwestel's 2012 switching costs in 2017 dollars. This change would include only routers with a capacity of 10,000 Mbps for 2012 to 2017, and would reflect the impact of the change in Canadian dollars versus U.S. dollars from 2012 and 2017.
 - Develop a second capital unit cost change to use in Northwestel's Wholesale Connect service cost studies. This change would include only routers with a capacity of 10,000 Mbps for 2017 to 2020.

³ Any equipment that is usage sensitive (i.e. traffic sensitive) is referred to as traffic-driven equipment. Examples of traffic-driven network equipment include Internet Protocol routers and Ethernet switches, and their associated interconnection links.

7. The Commission received interventions regarding Northwestel's application from Iristel Inc. (Iristel) and SSi Micro Ltd. (SSi). The public record of this proceeding, which closed on 20 March 2017, is available on the Commission's website or by using the file number provided above.

Issues

8. In Telecom Information Bulletin 2011-214, the Commission outlined the criteria it would use to assess review and vary applications filed pursuant to section 62 of the *Telecommunications Act* (the Act). Specifically, the Commission stated that applicants must demonstrate that there is substantial doubt as to the correctness of the original decision, for example due to (i) an error in law or in fact, (ii) a fundamental change in circumstances or facts since the decision, (iii) a failure to consider a basic principle which had been raised in the original proceeding, or (iv) a new principle which has arisen as a result of the decision.
9. The Commission has identified the following issues to be addressed in this decision:
 - Did the Commission err in determining that Northwestel must use a -26.4% capital unit cost change?
 - Did the Commission err in finding that Northwestel must use the -26.4% capital unit cost change for a switch capacity of 10,000 Mbps?
 - Did the Commission err in not reflecting the purchasing power of the Canadian dollar relative to the U.S. dollar when determining the capital unit cost change?
 - Should the Commission accept Northwestel's proposed modifications to the capital unit cost change, based on information set out in the 2016 Dell'Oro Report, to meet the company-specific requirements?

Did the Commission err in determining that Northwestel must use a -26.4% capital unit cost change?

Background

10. In Telecom Decision 2016-117, the Commission reviewed certain costing assumptions, initially set out in Telecom Regulatory Policies 2011-703 and 2011-704, that wholesale HSA service providers are required to use in cost studies filed in support of their wholesale HSA tariff applications. Among the assumptions reviewed was whether the costs of traffic-driven equipment, such as routers and switches, may have declined at a rate exceeding the 10% annual decline set out in Telecom Regulatory Policy 2011-703.
11. During the proceeding leading to Telecom Decision 2016-117, the Canadian Network Operators Consortium Inc. filed supporting evidence to demonstrate that unit costs had been declining much more rapidly than the then-current capital unit cost change

of -10%. Among this evidence was an October 2014 report by J. Scott Marcus entitled *The Economic Impact of Internet Traffic Growth on Network Operators* (the Scott Report), which stated that the unit price per Mbps of high-capacity routers declined by a compound annual growth rate (CAGR) of 26.4% between 2006 and 2013. The Scott Report derived this CAGR entirely from data published in the 2011 Dell’Oro Report.

12. In Telecom Decision 2016-117, the Commission determined that the Scott Report constituted a reliable source of data to determine a revised capital unit cost change. Accordingly, the Commission determined that the capital unit cost change would be revised from -10% to -26.4%.
13. In Telecom Decision 2016-443, the Commission determined that the same costing assumptions as those determined for wholesale HSA service in Telecom Decision 2016-117 should be used for the Wholesale Connect service, since the two types of service are similar in many respects.

Positions of parties

14. Northwestel argued that the -26.4% figure was based on outdated data regarding high-capacity routers over the period from 2006 to 2013. The company indicated that the 2016 Dell’Oro Report updated the forecast data for 2011 to 2013 to actual data, which resulted in a revised capital unit cost change.⁴
15. Iristel and SSi submitted that Northwestel had put forth similar arguments in the proceeding leading to Telecom Decision 2016-117, and that the Commission had already considered them.

Commission’s analysis and determinations

16. Northwestel’s revised capital unit cost change resulting from updating the forecast data is a marginal adjustment that does not represent a significant enough variation such that it casts substantial doubt as to the correctness of this element of Telecom Decision 2016-443.
17. Accordingly, the Commission finds that it did not err in determining that Northwestel must use a -26.4% capital unit cost change.

Did the Commission err in finding that Northwestel must use the -26.4% capital unit cost change for a switch capacity of 10,000 Mbps?

Positions of parties

18. Northwestel submitted that the Commission had erred in Telecom Decision 2016-443 by directing the company to use the -26.4% capital unit cost change, which was

⁴ Northwestel filed this figure with the Commission in confidence.

derived from data reflecting price changes for all high-capacity routers ranging from 1.5 Mbps to 100,000 Mbps, while in the same decision mandating Northwestel to prepare its cost studies for the Wholesale Connect service assuming a maximum switch capacity of 10,000 Mbps. Northwestel argued that this mismatch amounted to an error in fact.

19. Iristel and SSI submitted that parties to the proceeding that led to Telecom Decision 2016-117 had made similar arguments and that the Commission had rejected these arguments, noting that all major equipment in use by the telecommunications industry is growing in both functionality and capacity.
20. Iristel submitted that in Telecom Decision 2016-117, the Commission rejected Shaw Cablesystems G.P.'s request that the capital unit cost change of -26.4% cited in the Scott Report be rejected since it included only high-end routers and excluded cost trends related to the cable modem termination system (CMTS).⁵ The Commission determined that the next-generation CMTS would follow a similar trend of -26.4%, as determined in the Scott Report.
21. Iristel submitted that, consistent with the Commission's determinations set out in Telecom Decision 2016-117, Northwestel would follow the same growth technology trend with respect to increases in router capacity and functionality. Iristel argued that there was no substance to Northwestel's claim that the capital unit cost change should be derived exclusively from data for equipment with a capacity of 10,000 Mbps.
22. Northwestel replied that in Telecom Decision 2016-117, the Commission determined that although the cable companies currently have a different technology than the large telephone companies, that technology would ultimately evolve towards high-end routers with common capacities and price trends. Northwestel argued that the Commission clearly signalled in Telecom Decision 2016-443 that Northwestel's network was different from those of the cable companies and large telephone companies when it mandated Northwestel to limit costing to equipment with a specified capacity of 10,000 Mbps. Northwestel further argued that these companies' technologies are subject to price trends related to all high-end routers, whereas Northwestel's technology is subject to price trends related to routers with a maximum capacity of 10,000 Mbps.

Commission's analysis and determinations

23. The -26.4% capital unit cost change set out in Telecom Decision 2016-117 was not determined on a company-specific and router-specific basis, but on the basis of price trends related to high-end routers with capacities ranging from 1.5 Mbps to 100,000 Mbps.

⁵The CMTS is equipment that is used to provide high-speed data services on a coaxial cable network.

24. Since this figure was derived from a wide variation in maximum router capacity, the Commission determined that it was to be used by all wholesale HSA service providers in their cost studies, regardless of their individual router capacities.
25. Given that Northwestel's maximum router capacity of 10,000 Mbps used in its cost studies to support its Wholesale Connect service rates is within the range of 1.5 Mbps to 100,000 Mbps, the use of the -26.4% figure is equally applicable to Northwestel.
26. In light of the above, the Commission finds that it did not err in determining that Northwestel must use the -26.4% capital unit cost change for a switch capacity of 10,000 Mbps.

Did the Commission err in not reflecting the purchasing power of the Canadian dollar relative to the U.S. dollar when determining the capital unit cost change?

Background

27. In the proceeding leading to Telecom Decision 2016-443, Northwestel submitted that to update its Wholesale Connect service cost studies, certain costs included in its 2012 cost studies would have to be restated in 2017 dollars. In Telecom Decision 2016-443, the Commission determined that if Northwestel included earlier costs in its updated cost studies, the unit costs are to be expressed in 2017 dollars, using the capital unit cost change of -26.4%.

Positions of parties

28. Northwestel submitted that the -26.4% capital unit cost change was calculated using data measured in U.S. dollars, and that equipment purchases are made in U.S. dollars from revenues received in Canadian dollars. Northwestel argued that by not taking the difference in the exchange rate for Canadian and U.S. dollars from 2012 and 2017 into consideration, the Commission overstated the capital unit cost change that it mandated Northwestel to use in its updated cost studies.
29. SSi submitted that the Commission should dismiss Northwestel's concern because the Commission considered the impact of currency fluctuations when it set the -26.4% capital unit cost change in Telecom Decision 2016-117.
30. Northwestel replied that while the Commission did refer to the exchange rate in Telecom Decision 2016-117, this reference was with respect to the Scott Report, which was expressed entirely in U.S. dollars. Northwestel argued that the capital unit cost reduction published in the Scott Report represents the price change affecting a U.S. supplier and a U.S. purchaser, but not a Canadian purchaser of U.S. goods.
31. Northwestel submitted that as a Canadian company, the costs in its 2017 cost studies, and the actual costs incurred by the company, are reflected in Canadian dollars; therefore, any purchases made in U.S. dollars require conversion to Canadian dollars.

32. Northwestel further submitted that there are two methods of expressing its restated 2012 costs in 2017 dollars:
- updating the cost studies using 2017 supplier prices in U.S. dollars and applying the current exchange rate to convert those prices to Canadian dollars; or
 - using the 2012 supplier purchase price and applying the capital unit cost change reflecting price changes in U.S. dollars, as measured by the 2011 Dell’Oro Report and reported in the Scott Report, then adjusting that capital unit cost change to account for changes in the exchange rates in 2012 and 2017.
33. Northwestel submitted that, given time and resource constraints, it chose the second approach for the applicable Transport and Core Internet Protocol costs.

Commission’s analysis and determinations

34. The Commission reviewed currency fluctuation issues in the proceeding leading to Telecom Decision 2016-117 and determined that with respect to currency fluctuations for equipment purchased through contracts in U.S. dollars, the exchange rate is irrelevant when considering the percentage change in unit cost trends. Given Northwestel’s statement that its traffic-driven costs that were included in its 2012 Wholesale Connect service cost studies were based on equipment that was purchased in U.S. dollars, the Commission considers that the determinations set out in Telecom Decision 2016-117 equally apply to Northwestel.
35. Northwestel’s first calculation method described above is the method adopted in all cost studies, whereby the currency exchange costs are included in the year of purchase.
36. Northwestel had proposed the second method in the proceeding leading to Telecom Decision 2016-443, but without taking into account currency fluctuations. In that decision, the Commission reviewed this method and determined that when expressing unit costs from previous cost studies in 2017 dollars, Northwestel should apply the - 26.4% capital unit cost change.
37. Northwestel has now proposed to amend the second method to include currency fluctuations. In view of the determinations set out in Telecom Decision 2016-117, the Commission considers that when Northwestel restates certain costs from previous cost studies for its current Wholesale Connect service cost studies using the capital unit cost change, it would be inappropriate to adjust for currency fluctuations from 2012 and 2017, because these fluctuations are irrelevant to measuring the percentage change in unit costs.
38. In light of the above, the Commission finds that it did not err in not reflecting the purchasing power of the Canadian dollar relative to the U.S. dollar when determining the capital unit cost change.

Should the Commission accept Northwestel's proposed modifications to the capital unit cost change, based on information set out in the 2016 Dell'Oro Report, to meet the company-specific requirements?

Positions of parties

39. Northwestel submitted that, after having taken into account the issues discussed above, its company-specific requirements would involve two capital unit cost change factors instead of one. The first factor would incorporate a switch capacity of 10,000 Mbps and currency fluctuations, and the second factor would incorporate a switch capacity of 10,000 Mbps.

- The first factor (-11.3%) is calculated to restate traffic-driven costs from the 2012 cost studies in 2017 dollars.
- The second factor (-12.3%) reflects annual capital unit cost changes in the Wholesale Connect cost studies' study period.

40. Northwestel submitted that this request is feasible given the detailed information set out in the 2016 Dell'Oro Report.

Commission's analysis and determinations

41. The Commission has addressed the issues of switch capacity and currency fluctuations above. Accordingly, the Commission will address Northwestel's request to adopt the two proposed capital unit cost changes for the time period covered by the Wholesale Connect service cost studies, developed using information set out in in the 2016 Dell'Oro Report, to meet Northwestel's company-specific requirements.

42. Northwestel's proposal does not challenge the original correctness of Telecom Decision 2016-443; rather, the company is seeking Commission approval to use two capital unit cost changes, developed based on information set out in the 2016 Dell'Oro Report, to meet the company-specific requirements. As a result, the Commission finds that Northwestel has not demonstrated that there is substantial doubt as to the correctness of this aspect of Telecom Decision 2016-443. Therefore, Northwestel's proposal has not met the criteria for a review and vary pursuant to section 62 of the Act.

43. Accordingly, the Commission **denies** Northwestel's proposed modifications to the capital unit cost change, based on information set out in the 2016 Dell'Oro Report, to meet the company-specific requirements.

44. Should Northwestel wish to pursue this matter, it should provide supporting company-specific information (i.e. equipment prices and corresponding capacity) in a tariff notice application or in a new application. The company should rely on company-specific information, rather than on a third-party report that reflects general industry information and trends.

Conclusion

45. In light of all the above, the Commission finds that Northwestel has not demonstrated that there is substantial doubt as to the correctness of Telecom Decision 2016-443. Accordingly, the Commission **denies** Northwestel's application.

Secretary General

Related documents

- *Review of the rates for Northwestel Inc.'s Wholesale Connect service*, Telecom Decision CRTC 2016-443, 8 November 2016
- *Review of the rates for Northwestel Inc.'s Wholesale Connect service*, Telecom Notice of Consultation CRTC 2016-180, 12 May 2016
- *Review of costing inputs and the application process for wholesale high-speed access services*, Telecom Decision CRTC 2016-117, 31 March 2016
- *Billing practices for wholesale business high-speed access services*, Telecom Regulatory Policy CRTC 2011-704, 15 November 2011
- *Billing practices for wholesale residential high-speed access services*, Telecom Regulatory Policy CRTC 2011-703, 15 November 2011, as amended by Telecom Regulatory Policy CRTC 2011-703-1, 22 December 2011
- *Revised guidelines for review and vary applications*, Telecom Information Bulletin CRTC 2011-214, 25 March 2011