Canadian Radio-television and Telecommunications Commission | Conseil de la radiodiffusion et des télécommunications canadiennes

Telecom Order CRTC 2013-626

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Ottawa, 22 November 2013

Bell Canada and TELUS Communications Company – Introduction of higher-capacity links between interconnecting carriers

File numbers: Bell Canada Tariff Notice 7372
TCBC Tariff Notice 4357
TCC Tariff Notice 438
TCI Tariff Notice 644

In this order, the Commission approves Bell Canada's and TELUS Communications Company's (TCC) requests to introduce higher-capacity links between interconnecting carriers (IC-to-IC links) to co-located competitors. The Commission determines that for the provisioning of higher-capacity IC-to-IC links, Bell Canada and TCC are to provide the service to co-located competitors using a configuration that does not require additional electronic equipment. However, the Commission directs both companies and co-located competitors to implement certain safeguards to ensure compliance with the co-location rule. The Commission approves revised IC-to-IC link rates and directs Bell Canada and TCC to issue revised tariff pages.

Background

1. In Telecom Decision 2011-355, the Commission determined that higher-capacity links between interconnecting carriers (IC-to-IC links)[1] would provide an efficient and cost-effective means for competitors to transport traffic from an incumbent local exchange carrier's (ILEC) central office to their own points of presence, and directed that ILECs file tariffs for higher-capacity links when requested to do so by co-located competitors.

2. The Commission received applications from TELUS Communications Company (TCC), dated 27 July 2012, in which it proposed revisions to its Carrier Access Tariffs (CATs)[2] to (i) introduce a higher-capacity IC-to-IC link at 2.5 gigabits per second (Gbps), and (ii) modify the structure and rates for its existing DS-1 and DS-3 IC-to-IC links.

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[1] An IC-to-IC link is a wholesale service that provides a connection between two interconnecting competitors (co-locators) in the same central office at a given speed.

[2] Specifically, the company proposed modifications to TCBC CAT item 110 – Co-location Arrangements for Interconnecting Canadian Carriers, to TCC CAT item 211 – Central Office Link Arrangements for Interconnecting Canadian Carriers, and to TCI CAT items 250 – Virtual Co-location and 255 – Physical Co-location.

3. The Commission also received an application from Bell Canada, dated 6 December 2012, in which the company proposed revisions to its Access Services Tariff item 110 – Co-location Arrangements for Interconnecting Canadian Competitors and Digital Subscriber Line Service Providers (DSLSP) to introduce a higher-capacity IC-to-IC link at 1000 megabits per second (Mbps) in its Ontario and Quebec serving area.

4. In Telecom Order 2012-561, the Commission approved on an interim basis a monthly rate of $541 and a one-time service charge of $50 for TCC's 2.5 Gbps IC-to-IC link. The Commission denied TCC's proposed modifications to the rate structure and rates for DS-1 and DS-3 IC-to-IC links.

5. In Telecom Order 2013-10, the Commission approved on an interim basis a monthly rate of $600 for Bell Canada's 1000 Mbps IC-to-IC link.

6. The Commission received interventions regarding Bell Canada's application from the Canadian Network Operators Consortium Inc. (CNOC), Globility Communications Corporation (Globility), and MTS Inc. and Allstream Inc. (collectively, MTS Allstream). The Commission also received interventions regarding TCC's applications from Globility and MTS Allstream. The public records of these proceedings are available on the Commission's website at www.crtc.gc.ca under "Public Proceedings" or by using the file numbers provided above.

Issues

7. The Commission has identified the following issues to be addressed in this order:

   I. What configuration should Bell Canada and TCC use to provision higher-capacity IC-to-IC links?

   II. What adjustments should be made to Bell Canada's and TCC's estimated costs to provide higher-capacity IC-to-IC links?

   III. What markup is appropriate for higher-capacity IC-to-IC links?

   IV. Should the final rates for higher-capacity IC-to-IC links be applied retroactively to the date on which the rates were made interim?

I. What configuration should Bell Canada and TCC use to provision higher-capacity IC-to-IC links?

8. To provide higher-capacity IC-to-IC links, Bell Canada and TCC proposed a service configuration that includes additional switching or transmission equipment to limit speed on fibre cables. They indicated that the additional equipment would enable

them to measure the volume of traffic exchanged between co-located competitors and therefore maintain their ability to enforce compliance with the co-location rule.[3]

9. Bell Canada and TCC submitted that the proposed configuration would provide, at an appropriate cost, an effective safeguard to prevent co-located competitors from violating the co-location rule.

10. CNOC and MTS Allstream, supported by Globility, submitted that Bell Canada and TCC's proposed configuration would be unnecessarily complex and expensive, and would limit co-located competitors' access to transport facilities that are not provided by the ILEC.

11. CNOC and MTS Allstream proposed a simpler configuration where no switching or transmission equipment would be necessary to limit the capacity on fibre cables. Further, CNOC proposed that an effective, low-cost, and practical safeguard to ensure compliance with the co-location rule would be the use of a fibre media converter provided by the co-located competitors at each end of the IC-to-IC link. The use of such a converter would not require ongoing traffic monitoring by the ILEC.

12. As a safeguard and to address Bell Canada's and TCC's concern over non-compliance with the co-location rule, CNOC and MTS Allstream proposed the use of an affidavit regime. Under this regime, a co-located competitor would attest that the amount of traffic being exchanged with another co-located competitor does not exceed the amount of traffic exchanged with the ILEC. CNOC also suggested that spot checks could be conducted, and that penalties could be applied in the event of non-compliance.

13. Bell Canada and TCC submitted that CNOC's and MTS Allstream's proposed configuration (i.e. no switching or transmission equipment to limit the speed on fibre cables) and the use of affidavits to confirm compliance with the co-location rule had already been rejected by the Commission in Telecom Decisions 2012-209 and 2013-100.

14. Bell Canada and TCC further submitted that the proposed use of a fibre media converter would not be practical and would not reduce costs. They argued that the device would have to be under the ILEC's control in order to ensure that it would not be subject to manipulation by competitors. The companies submitted that, consequently, the responsibility and costs to install, maintain, and repair the equipment would rest with the ILEC.

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[3] The co-location rule, also referred to as the primary purpose rule, was established in Telecom Decision 97-15 to ensure that co-located competitors use co-located facilities primarily to interconnect and exchange traffic with the ILEC, rather than to exchange traffic with each other.

Commission's analysis and determinations

15. The Commission acknowledges that the IC-to-IC link configuration proposed by Bell Canada and TCC would effectively give ILECs the ability to enforce the co-location rule. Implementation of this proposal would be inconsistent with the enforcement mechanism in the existing regulatory framework.

16. As noted in Telecom Decision 2012-209, the onus to demonstrate compliance with the co-location rule rests with co-located competitors, not with the ILECs. As a result, there is no specific requirement for the ILEC to be in a position to limit the volume of traffic carried over the IC-to-IC link configuration as proposed by Bell Canada and TCC.

17. The Commission notes that the higher-capacity IC-to-IC link configuration proposed by CNOC and MTS Allstream would allow co-located competitors to demonstrate that they are adhering to the co-location rule. As such, the Commission considers that the configuration would be consistent with the co-location rule and the existing enforcement mechanism established in Telecom Decision 2012-209.

18. However, the Commission also considers that CNOC's and MTS Allstream's proposed configuration may allow co-located competitors to increase the transmission speed on fibre cables without the ILEC's involvement, thus circumventing the co-location rule and eliminating an important safeguard. Accordingly, the Commission considers that appropriate safeguards are necessary.

19. The Commission notes that CNOC's proposal to use a fibre media converter as a safeguard has merit, as it would alleviate Bell Canada's and TCC's concern about non-compliance with the co-location rule. Further, the proposal would be consistent with the existing enforcement mechanism.

20. The Commission further notes that because the media converter would be under the control of co-located competitors, an additional safeguard would be required. Accordingly, the Commission considers that allowing Bell Canada and TCC to conduct spot checks to verify compliance would alleviate their concerns about the possibility to circumvent the co-location rule.

21. In light of the above, the Commission determines that for the provisioning of higher-capacity IC-to-IC links, Bell Canada and TCC should provide the service to co-located competitors using a fibre patch cord (i.e. fibre with no switching or transmission equipment to limit speed) along with the following specific safeguards:

    i. co-located competitors should provide, install, and maintain a mutually agreed-upon optical device consistent with Bell Canada's and TCC's respective service specifications (i.e. 1000 Mbps for Bell Canada and 2.5 Gbps for TCC);

ii. co-located competitors should provide access to Bell Canada or TCC upon request so that the ILEC may conduct spot checks to inspect the installed optical device; and

iii. co-located competitors should demonstrate, upon request from Bell Canada or TCC, that they are adhering to the co-location rule, in accordance with the Commission's determinations set out in Telecom Decision 2012-209.

22. Consistent with Telecom Regulatory Policy 2009-19, the Commission notes that Bell Canada and TCC can enter into off-tariff agreements with co-located competitors for the provisioning of higher-capacity IC-to-IC links at rates and terms different from the tariffed rates approved in this order.

II. What adjustments should be made to Bell Canada's and TCC's estimated costs to provide higher-capacity IC-to-IC links?

23. In Telecom Orders 2012-561 and 2013-10, the Commission approved interim rates associated with Bell Canada's and TCC's applications to introduce higher-capacity IC-to-IC links. The interim rates were based on the original cost studies in support of service configurations that include equipment to limit transmission speeds on the fibre cables. As a result, the interim rates must be adjusted.

24. Bell Canada and TCC did not provide specific costs and rates for the provisioning of higher-capacity IC-to-IC links without equipment that limits capacity on the fibre cables, arguing that this approach would be contrary to Telecom Decisions 2012-209 and 2013-100. Accordingly, these costs were estimated using the available information on file.

25. Cost adjustments are also required with respect to the study period and demand forecast, Bell Canada's software development costs, and TCC's proposed one-time service charge.

a) Service configuration

26. Bell Canada and TCC provided cost studies that included costs associated with equipment that limits capacity on the fibre cables, but did not provide the costs associated with the provisioning of higher-capacity IC-to-IC links without such equipment.

Commission's analysis and determinations

27. Given the Commission's determination above with regard to the configuration that Bell Canada and TCC should use to provision higher-capacity IC-to-IC links to co-located competitors, the Commission has included only the costs (capital and expenses) associated with fibre cables.

28. In addition, for Bell Canada, certain costs were removed because the associated activities were determined to be unnecessary under the configuration determined by the Commission.[4]

b) Study period and demand forecast

29. Bell Canada and TCC proposed a study period of five years when estimating the costs of higher-capacity IC-to-IC links. Bell Canada opposed the use of a ten-year study period, submitting that it is not possible to project with any degree of certainty demand and costs over such a period.

30. In response to requests to provide a ten-year demand forecast, Bell Canada maintained its original five-year demand forecast and assumed a declining trend for the remaining five years. In contrast, TCC reduced its original five-year demand forecast, but assumed a growth in demand for the remaining five years.

31. Globility submitted that a ten-year study period would be appropriate and had been used in several recent proceedings. In addition, CNOC submitted that co-location services will continue to exist for at least ten years.

Commission's analysis and determinations

32. The Commission considers that it is reasonable to assume that there will be a need for higher-capacity IC-to-IC links for the next ten years to serve as new transport facilities for co-located competitors. In addition, the Commission determines that the use of a ten-year study period provides for a consistent estimation of costs over time.

33. The Commission notes that the service start-up (e.g. software development) costs in Bell Canada's cost study were significant. As a result, it is appropriate that the study period be long enough to allow the recovery of these costs over a reasonable period of time.

34. With respect to the ten-year demand forecast, the Commission notes that Bell Canada and TCC have made contradicting assumptions in their demand forecasts (i.e. Bell Canada assumed a declining trend whereas TCC assumed a growth trend). Further, Bell Canada provided no evidence to support declining demand for higher-capacity IC-to-IC links.

35. In light of the above, the Commission determines that a ten-year study period is appropriate. For Bell Canada and TCC, the Commission also determines that it is appropriate to assume that (i) the forecast for the first five years of the ten-year forecast is the same as the forecast proposed by the companies at the time they filed the applications, and (ii) the last five years of the ten-year forecast will have a zero growth rate, as a conservative scenario, in view of the contradictory assumptions made by Bell Canada and TCC in their respective cost studies.

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[4] Costs associated with the assessment of requirements and impacts on network systems and process activities, as well as costs associated with network design and transport activities, were removed.

c) Bell Canada’s software development costs

36. Bell Canada included one-time costs for software development in its cost study to reflect the update of its ordering and billing systems in support of this new service.

37. CNOC and Globility submitted that Bell Canada’s software development costs are significant and should be reviewed.

Commission’s analysis and determinations

38. The Commission considers that a reasonable capital expenditure for adding a new rate element is generally $50,000, which is consistent with its previous determination in Telecom Decision 2012-636. To reflect this determination, Bell Canada’s software development costs were reduced by 50 percent.

d) TCC’s proposed one-time service charge

39. TCC submitted that it had inadvertently omitted the time estimate associated with order entry, validation, and billing in its calculation of the service charge submitted in the original application. TCC requested that this error be corrected.

Commission’s analysis and determinations

40. In the Commission’s view, TCC’s time estimate for order entry, validation, and billing is reasonable and a correction to the original application is warranted, which will result in an appropriate one-time service charge associated with the provisioning of a 2.5 Gbps higher-capacity IC-to-IC link. Accordingly, the Commission has adjusted TCC’s time estimate.

III. What markup is appropriate for higher-capacity IC-to-IC links?

41. Bell Canada submitted that a markup of 30 percent would be consistent with markups recently approved by the Commission for other conditional mandated non-essential services, such as the markup approved in Telecom Decision 2012-636. The Commission notes that Bell Canada’s proposed markup of 33.5 percent was slightly over the 30-percent markup, as it was calculated to round the rate to the nearest $100.

42. TCC proposed a markup of 40 percent, submitting that this markup is reasonable and that there is no requirement or rationale for the rates for higher-capacity IC-to-IC links to be based on costs plus a markup of 15 percent. TCC also stated that a 30-percent markup would not be an adequate contribution to its fixed and common costs, and would not fully compensate for the risk of investment.

43. CNOC submitted that there is no justification for using a markup other than the 30-percent markup approved by the Commission for other conditional mandated non-essential services. CNOC further submitted that the purpose of a rating exercise is to determine rates that are just and reasonable, not to focus on producing round numbers as Bell Canada had submitted.

44. MTS Allstream submitted that higher-capacity IC-to-IC links are essential for a co-located competitor without fibre to connect to transport services from a party other than an ILEC. Since these links can only be provided by an ILEC, they should be classified and priced as conditional essential wholesale services.

Commission's analysis and determinations

45. The Commission notes that higher-capacity IC-to-IC links are conditional mandated non-essential services and cannot be considered essential services, as MTS Allstream proposed, because these links may be provided without using ILEC facilities outside of an ILEC's central office.

46. The Commission finds that TCC's claim that a 30-percent markup will not fully compensate for the risk of investment is not justified because higher-capacity facilities are being increasingly used by all industry participants, including the ILECs, thus reducing the risk of investment.

47. Accordingly, the Commission determines that a markup of 30 percent is appropriate in the circumstances and constitutes a reasonable contribution to Bell Canada's and TCC's fixed and common costs. The Commission also determines that this markup is consistent with the pricing principles for conditional mandated non-essential wholesale services set out in Telecom Decision 2012-636.

IV. Should the final rates for higher-capacity IC-to-IC links be applied retroactively to the date on which the rates were made interim?

48. On the basis that Bell Canada and TCC have introduced the service using additional equipment to limit speed on fibre cables, to ease the burden associated with the Commission's required change to the service configuration, and in view of the minimal financial impact, the Commission determines that the revised monthly rates and the one-time service charge should not be applied to the date on which the interim rates were approved.

Conclusion

49. In light of all the above, the Commission **approves on final basis**, effective the date of this order, Bell Canada Tariff Notice (TN) 7372, TCBC TN 4357, TCC TN 438, and TCI TN 644, with modifications to Bell Canada's and TCC's monthly rates and to TCC's one-time service charge as set out below, as well as to the companies' terms and conditions for higher-capacity IC-to-IC links.

Rates and service charge for higher-capacity IC-to-IC links

Service	Service charge	Monthly rate
Bell Canada 1000 Mbps IC-to-IC link	N/A	$127.49
TCC 2.5 Gbps IC-to-IC link	$115.20	$96.03

50. The Commission directs Bell Canada and TCC to issue revised tariff pages[5] associated with the provisioning of higher-capacity IC-to-IC links to reflect the determinations set out above.

51. The Commission notes that for all future higher-capacity IC-to-IC links, Bell Canada's and TCC's rates will remain the same, given that higher-capacity IC-to-IC links will be provided using a fibre patch cord.

Policy Direction

52. The Commission considers that the findings in this order are consistent with the Policy Direction[6] and advance the policy objectives set out in paragraphs 7(*c*) and (*f*) of the *Telecommunications Act* (the Act).[7] Further, consistent with subparagraph 1(*a*)(ii) of the Policy Direction, the Commission considers that it has, by amending Bell Canada's and TCC's proposals, relied on regulatory measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives.

Secretary General

Related documents

- *Canadian Network Operators Consortium Inc. – Application to review and vary Telecom Decision 2012-209 regarding the co-location rule*, Telecom Decision CRTC 2013-100, 1 March 2013

- Telecom Order CRTC 2013-10, 14 January 2013

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[5] Revised tariff pages can be submitted to the Commission without a description page or a request for approval; a tariff application is not required.

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

[7] The cited policy objectives of the Act are

> 7(*c*) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications; and
> 7(*f*) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective.

- *Wholesale residential high-speed access services – Capacity-based billing model service charge rates and related matters*, Telecom Decision CRTC 2012-636, 21 November 2012
- *TELUS Communications Company – Interconnecting carrier-to-interconnecting carrier cross-interconnection links*, Telecom Order CRTC 2012-561, 12 October 2012
- *Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Application to review and vary Telecom Decision 2011-355 pertaining to the co-location rule*, Telecom Decision CRTC 2012-209, 5 April 2012
- *Globility Communications Corporation – Application regarding the provision of links between interconnecting competitors in central offices*, Telecom Decision CRTC 2011-355, 31 May 2011
- *Bell Canada et al.'s application to review and vary Telecom Decision 2008-17 with respect to negotiated agreements*, Telecom Regulatory Policy CRTC 2009-19, 19 January 2009
- *Revised regulatory framework for wholesale services and definition of essential service*, Telecom Decision CRTC 2008-17, 3 March 2008
- *Co-location*, Telecom Decision CRTC 97-15, 16 June 1997