



Telecom Decision CRTC 2015-353

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Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Application regarding traffic imbalance payments to Fibernetics Corporation

*The Commission **denies** the Bell companies' application regarding traffic imbalance payments to Fibernetics Corporation, but will initiate a fact-finding process to determine if sufficient cause exists to initiate a proceeding to examine whether the compensation regime for traffic imbalance remains appropriate or requires adjustments.*

Background

1. As part of the introduction of local competition in Telecom Decision 97-8,¹ the Commission mandated that the local call traffic exchanged between incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs) be exchanged over shared-cost facilities (i.e. interconnecting trunks), and directed that a bill-and-keep approach be used for traffic that was interchanged between and terminated over these shared-cost facilities. Under this approach, the originating carrier bills its customers for their call traffic carried on its network and keeps the corresponding revenue; the originating carrier does not compensate the terminating carrier for traffic termination expenses. The shared-cost interconnection trunks used to carry this traffic and subject to the bill-and-keep approach are known as bill-and-keep trunks.
2. The Commission recognized the potential for traffic imbalance and put in place a regime (the imbalance regime) that allows for compensation (imbalance payments) to local exchange carriers (LECs) that terminate more traffic than they originate.²
3. Under the imbalance regime, all LECs measure terminating minutes in order to be compensated for the costs of traffic termination where a traffic imbalance exists, based on Commission-approved cost-based tariffs. The imbalance regime was revised in Telecom Decision 2010-787 to address specific traffic patterns generated by dial-up Internet and two-stage long distance calling services. A sliding scale

¹ In Telecom Decision 2004-46, the Commission modified the regulatory framework for the interconnection of local exchange carriers (LECs) by consolidating exchanges to form larger local interconnection regions (LIRs), and to provide increased efficiencies and lower costs of interconnection for local service competitors.

² For the purposes of compensation, traffic is considered to be balanced when the difference in the volume of originating traffic between any two LECs is below a certain threshold – 10% in the case of interconnection based on LIR, and 20% in the case of interconnection based on exchange.

discount applied to imbalance payments when the terminating/originating traffic imbalance ratio is high between two LECs.³

4. The Commission expected that, over time, there would be a balance in traffic exchanged and the imbalance payments resulting from the imbalance regime would be reduced or eliminated.

Application

5. The Commission received an application from Bell Aliant Regional Communications, Limited Partnership and Bell Canada (collectively, the Bell companies), dated 21 October 2014, concerning imbalance payments to Fibernetics Corporation (Fibernetics). The Bell companies claimed that Fibernetics was diverting its internal local customer traffic (internal traffic) to a third party,⁴ and that the traffic was then transmitted from the third party to the Bell companies' network over leased facilities, and returned to Fibernetics by the Bell companies over bill-and-keep trunks. The Bell companies submitted that this practice results in falsely elevated levels of imbalance payments in Fibernetics' favour.
6. The Bell companies requested that, to address this breach of the imbalance regime, the Commission
 - (i) immediately designate as interim, at least as it applies to the Bell companies, Fibernetics' Compensation for Traffic Termination tariff⁵ (the imbalance tariff) and suspend the payment of any traffic imbalance charges by the Bell companies to Fibernetics during the interim period;
 - (ii) permanently eliminate the payment of any traffic imbalance charges by the Bell companies to Fibernetics from the date Fibernetics' tariff is designated as interim, once their application is disposed of on a final basis; and
 - (iii) issue a general declaration that carriers may not send traffic that originates and terminates on their own networks (i.e. internal traffic) over bill-and-keep trunks.
7. In Telecom Decision 2014-668, the Commission made interim Fibernetics' imbalance tariff, which would allow the Commission to order retroactive payments to the Bell companies if, upon disposition of the application on a final basis, the Bell

³ The Commission revised the imbalance regime because CLECs that primarily provided dial-up Internet and two-stage long distance calling services created a significantly different traffic pattern than was originally expected when the interconnection compensation rules were established, as they did not permit LECs to reach a balanced or nearly balanced exchange of traffic. The revised imbalance regime was initially restricted to the operating territories of Bell Aliant Regional Communications, Limited Partnership and Bell Canada, but was subsequently extended in 2014 to apply to the operating territories of TELUS Communications Company, and of MTS Inc. (MTS) if any LEC operating in MTS's operating territory files a tariff application seeking the implementation of the revised imbalance regime in that territory.

⁴ The Bell companies filed the name of the third party in confidence with the Commission and with Fibernetics.

⁵ See Fibernetics' Access Services Tariff CRTC 21690, item 201.

companies' request for final relief were to be granted.⁶ However, the Commission denied the Bell companies' request to suspend payment of any traffic imbalance charges to Fibernetics pending disposition of their application on a final basis.

8. The Commission received interventions regarding the Bell companies' application from the Canadian Network Operators Consortium Inc. (CNOOC), Comwave Networks (Comwave), Fibernetics, MTS Inc. and Allstream Inc. (collectively, MTS Allstream), Rogers Communications Partnership (RCP), and TELUS Communications Company (TCC). The Commission also received confidential responses to Commission staff interrogatories from a third party. The public record of this proceeding, which closed on 16 April 2015, is available on the Commission's website at www.crtc.gc.ca or by using the file number provided above.

Issue

9. The Commission has identified the following issue to be addressed in this decision:
 - Is Fibernetics required to carry all traffic that originates from and terminates to telephone numbers assigned to it?⁷

Positions of parties

10. The Bell companies submitted that there has been a general decline in their traffic imbalance payments to CLECs since Telecom Decision 2010-787 was issued; however, their traffic imbalance payments to Fibernetics have been increasing.
11. The Bell companies stated that, as a result, they initiated an investigation to determine the cause of the increasing imbalance payments to Fibernetics, focusing on traffic transmitted to them by the third party⁸ that was ultimately destined for Fibernetics. For three testing windows,⁹ whenever the originating and terminating telephone numbers for a call were both identified as being from blocks of telephone numbers assigned to Fibernetics,¹⁰ the call was deemed to be a Fibernetics internal customer call. The Bell companies submitted that their tests and analysis revealed that a large percentage of the Fibernetics-destined traffic that the third party transmitted to them was Fibernetics' internal traffic.

⁶ The Commission also ordered the Bell companies to release to Fibernetics, in confidence, the call details and name of the third party.

⁷ Blocks of telephone numbers are assigned to a LEC by the Canadian Numbering Administrator.

⁸ The Bell companies submitted that they chose this third party because of the unusual traffic patterns that were being observed over its leased Primary Rate Interfaces (PRIs). Normally traffic over PRIs is two-way in nature but the traffic in this case was largely one-way in nature.

⁹ The Bell companies conducted a series of random tests of traffic transmitted to them over facilities leased by the third party they suspected was unknowingly being used by Fibernetics to divert its internal traffic. The Bell companies examined traffic transmitted to them by the third party at three different times and dates.

¹⁰ The three-digit telephone number prefix (NXX) or central office (CO) code is unique to an exchange within a given Numbering Plan Area (NPA). NXXs identify the exchanges in which a call originates and terminates and are thus used to rate and route calls. When a LEC is assigned a new CO code, it is assigned a block of 10,000 new telephone numbers for a particular exchange.

12. The Bell companies submitted that because the traffic was Fibernetics' own internal traffic, it should not be present on bill-and-keep trunks. In the Bell companies' view, such traffic should be routed on Fibernetics' own network, and not diverted to the Bell companies' network via a third party only to be returned to Fibernetics by the Bell companies over bill-and-keep trunks.
13. The Bell companies submitted that this practice results in unjustified increases in the imbalance payments made to Fibernetics, and that traffic exchanged over bill-and-keep trunks between them and Fibernetics over the last year has been highly skewed towards Fibernetics. They submitted that such levels of prolonged traffic imbalance cannot be explained by temporary anomalies in traffic.
14. The Bell companies indicated that the integrity of the imbalance regime could be threatened, since other carriers would have an incentive to copy Fibernetics' actions and manufacture calls within their networks to generate elevated levels of traffic imbalance.
15. Fibernetics submitted that based on the Bell companies' test results, all the calls in question had (i) originated from end-users of the third party using telephone numbers that the third party had leased from Fibernetics, and (ii) terminated on telephone numbers assigned to end-users of Fibernetics' wholesale customers' services. Fibernetics submitted that the above arrangement did not represent a breach of the imbalance regime, Fibernetics' tariffs, or any other Commission policy.¹¹
16. Fibernetics argued that when a LEC leases a telephone number to a wholesale customer, the traffic originating from that number is not internal to the LEC, but is instead the traffic of the wholesale customer, which determines the routing of the traffic. There is no requirement for a LEC's wholesale customer to purchase both telephone numbers and connectivity from the same LEC. Fibernetics submitted that, therefore, the Bell companies' definition of internal traffic was flawed, since it captured wholesale traffic that was not actually internal to Fibernetics.
17. CNOC submitted that accepting the Bell companies' definition of internal traffic and granting their requested relief would result in harmful consequences for voice over Internet Protocol (VoIP) providers that lease telephone numbers from underlying telecommunications service providers (TSPs). In CNOC's view, such an outcome was not justified by any existing regulatory policy and was inappropriate.
18. CNOC submitted that currently, VoIP providers are not obligated to route their traffic to the same underlying TSP from which they lease telephone numbers. As a result, a VoIP provider may select a different underlying TSP to carry its traffic than the TSP from which it obtains leased telephone numbers, based on considerations such as cost, location and points of presence, and network capabilities.
19. Comwave submitted that the Bell companies' definition of internal traffic was not reasonable. Comwave further submitted that traffic from a wholesale customer that purchased telephone numbers from a CLEC would not necessarily touch the CLEC's network or switch. The wholesale customer's switch controls how this outgoing

¹¹ In addition, Fibernetics requested that the Commission establish a mechanism to deter the filing of spurious applications, such as the application that is the subject of this proceeding.

traffic is routed, not the CLEC. Traffic would route directly from the wholesale customer's switch to its terminating carrier. Comwave noted that this same situation occurs for wholesale customers of Bell Canada. For example, Comwave stated that it is a wholesale customer of Bell Canada and purchases telephone numbers from Bell Canada in some exchanges to provide to its own customers. Comwave submitted that traffic from these numbers is not internal to Bell Canada and not from Bell Canada's end-customers, and that Comwave determines where to route calls from these numbers.

20. MTS Allstream argued that the Bell companies or any concerned LEC has the option to modify its tariffs and/or contracts for retail services to provide safeguards against receiving unreasonably high inbound traffic over these services.
21. RCP submitted that, based on what the Bell companies have described, no carrier should be permitted to develop arbitrage schemes and benefit from potential gaming opportunities under the current imbalance regime. In view of this, RCP supported the Bell companies' request for a declaration that carriers may not send internal traffic over bill-and-keep trunks.
22. TCC stated that because it had no knowledge of the particulars of the situation, it would comment only on the issue of circular routing. TCC submitted that the routing of an internal call out to other carriers when that call would inevitably be routed back to its point of origin consumes more resources than necessary, and viewed the process as an abuse of the mandated interconnection arrangements established to support telecommunications competition in Canada.
23. In reply, the Bell companies submitted that Fibernetics was incorrect in stating that the wholesale customer controls and makes arrangements for routing traffic. In the Bell companies' view, the Commission affirmed in Telecom Decision 2007-49 that the underlying LEC has the obligation to route traffic. The Bell companies submitted that the Commission determined that a CLEC could meet its obligation to obtain central office (CO) codes¹² by using the CO codes of the LEC from which it also obtained its switching and/or local interconnection facilities to the public switched telephone network (PSTN). The Bell companies argued that it therefore follows that underlying LECs are, and remain, the carriers of record when they lease telephone numbers and associated access services to other CLECs and resellers, and that LECs must control inter-carrier routing.

Commission's analysis and determinations

24. The Bell companies' application was based on an analysis of a small sample of traffic to illustrate their position. The traffic in the sample that appears to have contributed to the imbalance payments favouring Fibernetics was (i) originated by the end-users of the third party, which is a reseller that leases telephone numbers from Fibernetics; and (ii) destined to other third-party resellers that also lease telephone numbers from Fibernetics.

¹² See footnote 10.

25. Contrary to the Bell companies' assertion, there is no existing Commission rule or policy that a reseller that leases telephone numbers from a LEC must also use the same LEC to terminate any traffic that is generated from those leased numbers. A reseller may select a different underlying LEC to carry its traffic than the LEC from which it leases telephone numbers, based on considerations such as cost, location and points of presence, and network capabilities.
26. Further, contrary to the Bell companies' submission, the Commission, in Telecom Decision 2007-49, did not confirm that LECs that lease telephone numbers must also control the inter-carrier routing of calls from those numbers. Rather, the Commission determined that a CLEC that relies on an underlying LEC for switching and/or interconnection could meet its CLEC obligation to obtain a CO code per ILEC exchange or per local interconnection region (LIR)¹³ by using a CO code of the underlying LEC from which it obtains its switching and/or local interconnection facilities to the PSTN. The CO code obligations for CLECs set out in Telecom Decision 2007-49 are different from the situation wherein a reseller leases telephone numbers from one LEC but uses another LEC's facilities to terminate the traffic in question.
27. In light of the above, the Commission **denies** the Bell companies' application. In view of this determination, the Commission **approves on a final basis**¹⁴ Fibernetics' imbalance tariff and **directs** Fibernetics to issue revised tariff pages¹⁵ for item 201 – Compensation for Traffic Termination of its Access Services Tariff within **10 days** of the date of this decision.
28. Notwithstanding the foregoing, based on the record of this proceeding, the Commission is concerned that the current imbalance regime could act or is acting as incentive to elevate levels of traffic imbalance in certain circumstances. At the same time, the Commission is mindful of the concerns expressed during the proceeding that any changes to the routing of traffic for leased numbers would have a major, though not specifically quantified, impact on the industry.
29. As noted earlier in this decision, the imbalance regime was revised when the Commission determined that the mechanism did not permit LECs to reach a balanced or nearly balanced exchange of traffic. Further, other mandated arrangements, such as the local transit interconnection service¹⁶ in Telecom Decision

¹³ In Telecom Decision 2007-23, the Commission determined that CLECs must acquire at least a single CO code per LIR in which they provide local service. However, if LECs wish to assign telephone numbers to customers in exchanges within an LIR, they must still obtain a CO code for each exchange in which they will be assigning telephone numbers to their customers.

¹⁴ In Telecom Decision 2014-668, the Commission made interim Fibernetics' imbalance tariff pending the disposition of the Bell companies' application on a final basis.

¹⁵ Revised tariff pages can be submitted to the Commission without a description page or a request for approval; a tariff application is not required.

¹⁶ The local transit interconnection service is one of the services mandated in Telecom Decision 97-8. It allows a CLEC offering local telephone services within an ILEC's operating territory to terminate calls to other LECs operating in that same local area. These LECs could be either other CLECs or small ILECs.

2010-908,¹⁷ were revised to ensure that small ILECs were compensated for the termination of all long distance calls. Further, in Telecom Decision 2014-223,¹⁸ the Commission's rule on the routing of long distance calls to small ILECs was extended to resellers.

30. Given the above, the Commission will initiate a fact-finding process to determine if sufficient cause exists to initiate a proceeding to examine whether the imbalance regime remains appropriate or requires adjustments.

Secretary General

Related documents

- *Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Request for disclosure of confidential information and for interim relief regarding traffic imbalance payments to Fibernetics Corporation*, Telecom Decision CRTC 2014-668, 19 December 2014
- *Execulink Telecom Inc. – Application seeking measures to ensure the proper routing of long distance calls*, Telecom Decision CRTC 2014-223, 8 May 2014
- *TELUS Communications Company – Application for clarification and expedited relief concerning the manner in which Bell Canada intends to implement Telecom Decision 2010-908*, Telecom Decision CRTC 2011-416, 11 July 2011
- *Quebecor Media Inc. and Rogers Communications Partnership – Use of Bell Canada's local transit service to deliver long-distance calls to small incumbent local exchange carriers' customers*, Telecom Decision CRTC 2010-908, 3 December 2010
- *Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Proposed revision to the treatment of imbalance traffic compensation*, Telecom Decision CRTC 2010-787, 25 October 2010, as amended by Telecom Decision CRTC 2010-787-1, 16 August 2011
- *Central office code obligations for competitive local exchange carriers*, Telecom Decision CRTC 2007-49, 6 July 2007
- *Rogers Wireless Partnership Part VII application regarding the requirement for a central office code in each served exchange*, Telecom Decision CRTC 2007-23, 12 April 2007

¹⁷ In that decision, the Commission directed that CLECs route all long distance calls to small ILECs' customers via toll interconnection trunks and that, after a 60-day period, Bell Canada could block any long distance calls by small ILECs' customers routed via its local transit interconnection service. The Commission considered that it is the responsibility of each CLEC to separate local and long distance calls to small ILECs' customers, and to route these calls to the appropriate toll or local interconnection services. The Commission also considered that these routing changes should be implemented expeditiously because the revenues lost to small ILECs were not recoverable.

¹⁸ In that decision, the Commission directed two CLECs to inform their resellers that they are to route all long distance calls to small ILECs' customers via toll interconnection trunks, in accordance with Telecom Decisions 2010-908 and 2011-416.

- *Trunking arrangements for the interchange of traffic and the point of interconnection between local exchange carriers*, Telecom Decision CRTC 2004-46, 14 July 2004
- *Local competition*, Telecom Decision CRTC 97-8, 1 May 1997