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

Telecom Decision CRTC 2010-930

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Ottawa, 9 December 2010

Classification of service providers that light leased dark fibre for subsequent sale

File number: 8665-C12-201004853

In this decision, the Commission determines that a service provider that leases dark fibre and lights the fibre using its own optical equipment does not own or operate a "transmission facility," and, when it provides services to the public using these facilities, it is not operating as a "telecommunications common carrier" as defined in the Telecommunications Act.

Introduction

1. On 25 November 2009, AboveNet Communications Inc. (AboveNet) filed a letter requesting that the Commission register its Canadian subsidiary, AboveNet Canada Inc. (AboveNet Canada), as a reseller. AboveNet stated that the initial intention was for AboveNet Canada to resell dark and lit fibre-optic services in Canada. AboveNet also stated that the telecommunications services to be resold would be obtained from TELUS Communications Company (TCC) pursuant to an existing facilities lease agreement, noting that AboveNet Canada neither owned nor operated transmission facilities in Canada.

2. By letter dated 7 December 2009, TCC opposed the registration of AboveNet Canada as a reseller. TCC argued that, based on the facts presented to the Commission, AboveNet Canada does not qualify to operate as a reseller and should be considered a "telecommunications common carrier" under the *Telecommunications Act* (the Act).

3. In March 2010, the Commission issued Telecom Notice of Consultation 2010-165, in which it called for comments on whether by lighting dark fibre leased from a third party and providing that lit fibre to third parties for compensation, a service provider is "operating" a "transmission facility" and is a "telecommunications common carrier," as defined in the Act.

4. The Commission received submissions from AboveNet; AT&T Global Services Canada Co. (AGSC); Bell Aliant Regional Communications, Limited Partnership and Bell Canada (collectively, the Bell companies); Cogent Canada Inc., Level 3 Communications, LLC, and Verizon Canada Ltd. (collectively, the Coalition); MTS Allstream Inc. (MTS Allstream); NextG Networks Canada Inc. and its parent NextG Networks, Inc. (collectively, NextG); TCC; TekSavvy Solutions Inc. (TekSavvy); and Yak Communications (Canada) Corp. (Yak).

5. AboveNet, and AGSC, the Coalition, MTS Allstream, NextG, TekSavvy, and Yak (collectively, the other parties) argued that a service provider that lights leased dark fibre and uses the lit fibre to provide telecommunications service to the public is not a "telecommunications common carrier." The Bell companies and TCC argued that such a service provider operates "transmission facilities" and therefore operates as a "telecommunications common carrier."

6. The public record of this proceeding, which closed on 28 April 2010, is available on the Commission's website at www.crtc.gc.ca under "Public Proceedings" or by using the file number provided above.

Background and legislative context

7. In June 1993, Parliament enacted the Act[1] which, among other things, repealed telecommunications-related provisions of the predecessor *Railway Act*. Under the *Railway Act*, the obligation to file tariffs and other regulatory requirements applied to facilities-based service providers and, following a Commission determination in 1992,[2] to resellers (i.e. those who leased transmission capacity) that provided end-to-end basic telecommunications by means of interprovincial services or facilities that they configured, and that exercised control over the carriage and routing of their traffic. Prior to the Commission's decision in 1992, resellers were not considered "companies" subject to the regulatory framework set out in the *Railway Act*.

8. With the new Act, Parliament, among other things, addressed the distinction between resellers and facilities-based service providers. In Telecom Public Notice 93-62, which was issued just prior to the coming into force of the Act, the Commission stated that "in order to satisfy, among other things, the intent of Parliament that resellers that do not have basic transmission facilities should not be subject to Commission regulation, a series of related definitions were included in section 2 of the Act."

9. The seminal definition introduced in the Act was that of a "telecommunications common carrier" as a person that owns or operates a "transmission facility" used to provide "telecommunications services" to the public for compensation.[3] The definition of "transmission facility"[4] does not include "exempt transmission

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1 The Act came into force on 25 October 1993.

2 See Telecom Decision 92-11.

3 Telecommunications common carriers that are subject to the legislative authority of Parliament are "Canadian carriers" subject to tariffing and related requirements under the Act.

4 "transmission facility" means any wire, cable, radio, optical or other electromagnetic system, or any similar technical system, for the transmission of intelligence between network termination points, but does not include any exempt transmission apparatus.

apparatus" (ETA).[5] As a result, only a service provider that owns or operates a transmission facility (whether or not in combination with ETA) can be a "telecommunications common carrier" and can be subject to the tariffing and other requirements of the Act.

10. Accordingly, in Telecom Public Notice 93-62, the Commission concluded that resellers would not be subject to the provisions of the Act applicable to Canadian carriers, including the requirement to file tariffs for prior Commission approval.

11. The distinction between resellers and facilities-based providers was addressed again in 1998 when Parliament created a new category of service provider in conjunction with new powers[6] granted to the Commission. Since the new powers were intended to apply to resellers as well as facilities-based service providers, the definition of "telecommunications service provider" was introduced into the Act in order to capture all providers of basic telecommunications services – whether facilities-based or not.

Issues

12. The Commission has identified the following two issues to be addressed in this decision:

    I. Does the optical equipment used by a service provider to light leased dark fibre fall within the definition of ETA or can it be considered, in and of itself, a "transmission facility?"

    II. Does a service provider operate a "transmission facility" when it attaches optical equipment to leased dark fibre to provide telecommunications services to third parties?

I. Does the optical equipment used by a service provider to light leased dark fibre fall within the definition of ETA or can it be considered, in and of itself, a "transmission facility?"

13. TCC stated that a piece of equipment is not ETA unless it performs only the functions listed in parts (*a*) - (*c*) of the definition of ETA.

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[5] "exempt transmission apparatus" means any apparatus whose functions are limited to one or more of the following:

(a) the switching of telecommunications,

(b) the input, capture, storage, organization, modification, retrieval, output or other processing of intelligence, or

(c) control of the speed, code, protocol, content, format, routing or similar aspects of the transmission of intelligence.

[6] The new powers were to issue international service licences (sections 16.1-16.4) and to require contribution to a fund to support basic telecommunications services (section 46.5).

14. TCC argued that the purpose of including part (*a*) in the definition of ETA was to ensure that the operation of equipment that was limited to switching did not bring a service provider within the scope of the definition of a "telecommunications common carrier." Further, TCC argued that part (*b*) of the ETA definition was intended to exclude enhanced service providers, and that part (*c*) was designed to ensure that companies engaged solely in data processing were also excluded.

15. TCC argued that while the electronics used to light dark fibre may (i) perform a switching function, (ii) process intelligence, and (iii) control the speed of the transmission,[7] they will also convert an input signal into pulses of light that will travel down the fibre and transmit intelligence. TCC submitted that this function is the core function of a carrier and is not included in the definition of ETA.

16. TCC submitted that the functions of the equipment used to light dark fibre by converting electromagnetic signals into light signals cannot be properly described as changing the "format," "code," or "protocol" of the transmissions, as those terms are defined in Newton's Telecom Dictionary (21st edition, 2005). TCC further argued that, in a 1984 decision,[8] the Commission had previously linked the concept of "formatting" to that of "editing" and that this linkage should be used to determine the meaning of "format" in the ETA definition.

17. AboveNet and several of the other parties submitted that the optical equipment falls within part (*c*) of the ETA definition as its function is to convert an input signal into pulses of light, which constitutes a protocol and format conversion that amounts to a control of the speed, code, protocol, content, and format of the transmission of intelligence that is encoded in the pulses of light.

18. AboveNet argued that the term "exempt transmission apparatus" refers to apparatus that have a transmission function. AboveNet argued that, based on the definition of "transmission facility" in the Act, it is reasonable to conclude that it is the basic transmission medium that is intended to be captured (i.e. the fibre-optic cable) and not the transmission-related equipment that is attached to or associated with the basic transmission capacity.

Commission's analysis and determinations

19. The parties to this proceeding agreed that equipment used to light dark fibre performs, in part, some of the functions identified in the definition of ETA. The key dispute related to whether the optical equipment,[9] to the extent it converts electromagnetic signals into light signals, properly falls within the definition of ETA.

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7 As defined by parts *a*, *b*, and *c*, respectively, of the ETA definition.

8 See Telecom Decision 84-18.

9 For the purpose of this decision, the term "optical equipment" refers to a piece of equipment, or a component of an integrated multi-function apparatus, that converts electromagnetic signals into light signals, and does not include any other components of an integrated apparatus that may perform functions such as, but not limited to, protocol conversion, data storage, and routing.

20. In this regard, the Commission notes in particular part (*c*) of the ETA definition, which is set out as follows:

> control of the speed, code, protocol, content, format, routing or similar aspects of the transmission of intelligence.

21. The Commission considers that there is no basis to consider that the term "format" in part (*c*) of the ETA definition refers solely to the shape, size, or presentation of the message being transmitted, as argued by TCC. The Commission considers that the term "format" is a broad and general term and that TCC's restrictive interpretation is inconsistent with the plain meaning of the word and, more generally, with the broad and comprehensive nature of the definition of ETA.

22. The Commission notes that in order for the intelligence to be transmitted along the optical fibre, it must be converted from electromagnetic signals into light signals and that the optical equipment performs this function. The Commission considers, as a matter of fact, that the conversion of electromagnetic signals into light signals involves control of the format of the transmission of intelligence from one which is compatible with an electromagnetic transmission medium to a format compatible with an optical transmission medium. The Commission therefore finds, as a matter of fact, that the function of the optical equipment is to control the format of the transmission of the intelligence.

23. In light of the above, the Commission therefore finds that the functions of optical equipment used to light leased dark fibre are limited to those identified in the definition of ETA.

24. Furthermore, the Commission notes that even if optical equipment used to light dark fibre were not captured by the definition of ETA, it could not by itself constitute a "transmission facility." As noted above, that term is defined to mean

> any wire, cable, radio, optical or other electromagnetic system, or any similar technical system, for the transmission of intelligence between network termination points, but does not include any exempt transmission apparatus.

25. The Commission considers that optical equipment used to light dark fibre could not of itself be described as an "electromagnetic system, or any similar technical system, for the transmission of intelligence between network termination points." Optical equipment does not by itself transmit intelligence between network termination points.

26. Given the wide scope of ETA, and that a "transmission facility" is for the "transmission of intelligence between network termination points," the Commission considers that an interpretation pursuant to which the term "transmission facility" captures the basic transmission medium, as argued by AboveNet, and not the transmission-related equipment such as optical equipment attached at both ends of such facility, is more consistent with Parliament's intention.

27. In light of all of the above, the Commission concludes that the optical equipment used to light leased dark fibre is not a "transmission facility" as defined in section 2 of the Act.

II. Does a service provider operate a "transmission facility" when it attaches optical equipment to leased dark fibre to provide telecommunications services to third parties?

28. The Bell companies argued that the word "operate" means "to cause to function." They submitted that the question should not be "who operates the equipment attached to the transmission facility," but rather who is operating the transmission facility itself. They argued that dark fibre is inert, and that the provisioning of dark fibre does not involve causing the transmission facility to function. Rather, the Bell companies submitted that it is the lessee (i.e. Above-Net) or end-user that causes the dark fibre to function by lighting it.

29. The Bell companies submitted that accepting AboveNet's and others' arguments would render the words "or operates" in the Act meaningless, allowing telecommunications common carriers to circumvent the rules pertaining to foreign ownership and control simply by leasing, rather than owning, transmission facilities.

30. TCC submitted that the attachment of the optical equipment has the overall effect of turning dark fibre into a system capable of transmitting intelligence.

31. TCC argued that either ownership or operation of a system is enough to bring a person within the definition of a telecommunications common carrier. TCC cited a number of Commission decisions (issued prior to the new Act) to support the argument that just as the Act's predecessor applied to some but not all resellers, depending on how they operate, so too does the current Act. TCC submitted that attaching ETA or non-ETA to dark fibre constitutes operating a system, and therefore satisfies the definition of a telecommunications common carrier.

32. AboveNet and several of the other parties noted that the carriers that lease the dark fibre to the resellers operate the dark fibre to the extent that they are responsible for the ongoing management, maintenance, repair, and replacement of the fibres. A number of these parties noted that in fact the resellers (i.e. those leasing the dark fibre) cannot access the facility and cannot finance, engineer, manage, modify, maintain, operate, or transfer any interests in the transmission facility, which in all instances remains "owned" and operated by the facilities-based telecommunications common carrier. For example, AGSC stated that (i) the reseller is responsible for notifying the Network Operations Centre (NOC) operated by the carrier in the event that transmission is interrupted or otherwise degraded, and (ii) it is the carrier's NOC personnel who facilitate repairs to the (fibre) network facilities and restoration of service, not those of the reseller.

33. AboveNet argued that the test for defining "operate" under the Act cannot be based on which party intends to cause the transmission to function, as submitted by the Bell companies, as every party involved in the supply chain, from carrier to customer

to end-user, takes various actions in relation to the facility to cause it to function. Rather, the Commission must look to the words and objects of the Act itself to interpret the meaning of "operate."

Commission's analysis and determinations

34. The Commission notes that the definition of "telecommunications common carrier" refers to a person that "owns or operates a transmission facility," and the definition of "transmission facility" specifically excludes apparatus falling within the definition of ETA.

35. In the Commission's view, a service provider that attaches ETA equipment to leased dark fibre operates the ETA equipment, not a transmission facility. Indeed, the Commission notes that several parties submitted that the carrier that owns the leased dark fibre retains operational responsibility of the fibre to the extent that it remains responsible for access to, and the maintenance, repair, and replacement of, the fibre.

36. The Commission notes the argument made by parties that Parliament specifically included the definition of ETA so that resellers operating such apparatus could not be held to be a "telecommunications common carrier." Further, having considered the Act in its entirety, and its legislative history, the Commission is of the view that the distinction between resellers and facilities-based providers is essential to a proper interpretation of the Act.

37. In light of the above, the Commission finds that, to the extent that it uses optical equipment to light leased dark fibre, a service provider does not own or operate a "transmission facility" as defined in the Act.

Policy Direction

38. The Bell companies submitted that the Commission cannot forbear from the definitions of the Act or rely on the Policy Direction[10] in order to create exceptions to the Canadian foreign ownership and control rule.

39. TCC argued that the Policy Direction does not speak to the issues to be decided in this case, but even if it did, there is no basis for resorting to any source other than the Act in deciding what the Act says unless the Act is unclear. In support of this view, TCC cites Driedger, Construction of Statutes (2nd edition, 1983), page 87, where the author says that

> Today there is only one principle or approach [to the construction of legislation], namely, the words of an Act are to be read in their entire context and in their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act, and the intention of Parliament.

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

40. MTS Allstream submitted that the Canadian telecommunications industry has relied on and, indeed, structured itself on the basis of Telecom Public Notice 93-62 on how the definition of a "telecommunications common carrier" should be interpreted. This decision has enabled a variety of service providers to contribute to the telecommunications infrastructure in Canada and increase overall levels of competition in the process.

41. Several of the other parties shared the view that a ruling declaring resellers who light leased dark fibre to be telecommunications common carriers would be immediately disruptive to the Canadian telecommunications industry that has developed since Telecom Public Notice 93-62 by placing a number of large resellers in violation of the Act and would be inconsistent with the objectives of the Act and the Policy Direction.

Commission's analysis and determinations

42. The Commission considers that neither the Policy Direction nor the telecommunications policy objectives set out in section 7 of the Act can alter the meaning of the definitions in section 2 of the Act examined in this proceeding. Nevertheless, the definitions must, as TCC has submitted and as the Commission has done in this decision, be considered in the context of the entire Act, and read in a manner that is consistent with their purpose and the intention of Parliament.

43. The Commission considers that its determinations in this decision further the telecommunications policy objectives set out in section 7 of the Act, including, in particular, those set out in paragraphs 7(*a*), (*c*), (*e*), and (*f*) of the Act.[11] Further, given that the effect of the determinations in this decision is to rely on market forces to the maximum extent possible, the Commission considers that its determinations are consistent with the Policy Direction.

Conclusion

44. In light of the above, the Commission concludes that a service provider that leases dark fibre to which it attaches optical equipment in order to provide telecommunications services to the public is not on that basis a "telecommunications common carrier" as defined in the Act.

Secretary General

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[11] The cited policy objectives of the Act are
(*a*) to 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;
(*c*) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;
(*e*) to promote the use of Canadian transmission facilities for telecommunications within Canada and between Canada and points outside Canada; and
(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.

Related documents

- *Classification of service providers that light leased dark fibre for subsequent sale*, Telecom Notice of Consultation CRTC 2010-165, 19 March 2010, as amended by Telecom Notice of Consultation CRTC 2010-165-1, 25 March 2010

- *Exemption of resellers from regulation*, Telecom Public Notice CRTC 93-62, 4 October 1993

- *Application by TWU – Status of resellers under the* Railway Act, Telecom Decision CRTC 92-11, 11 June 1992

- *Enhanced Services*, Telecom Decision CRTC 84-18, 12 July 1984