



Telecom Decision CRTC 2009-326

Ottawa, 4 June 2009

The Internet Centre Inc. (TICI) – Request that TELUS Communications Company be directed to provide unconditioned local copper channels to allow TICI to provide a high-speed Internet service

File number: 8622-T114-200809403

In this decision, the Commission denies The Internet Centre Inc.'s (TICI) request that TCC make available to TICI spare unconditioned local copper channels.

Introduction

1. The Commission received an application from The Internet Centre Inc. (TICI), dated 8 July 2008, requesting that the Commission require TELUS Communications Company (TCC) to make available to TICI spare unconditioned local copper channels in accordance with TCC's General Tariff Item 522, Analogue Private Line Services (Tariff Item 522). TICI wishes to connect its own equipment at each end of the copper channel to provide high-speed Internet service to Alberta communities served by the Alberta SuperNet network.¹
2. In the alternative, if the Commission finds that Tariff Item 522 does not permit the configuration requested by TICI, TICI requested that TCC be directed to file a new tariff to meet its requirements.
3. Unconditioned local copper channels are facilities connecting two customer locations within an exchange. Channels are created by cross-connecting two local loops in the TCC central office, with each loop terminating at a customer location. The channels must be provided using copper facilities end-to-end without voice coils or other voice conditioning equipment that would render the facility incapable of transmitting data at a speed sufficient for high-speed Internet service, such as that proposed by TICI.
4. The Commission received submissions from TCC and Axia SuperNet Ltd. The public record of this proceeding, which closed on 2 February 2009, is available on the Commission's website at www.crtc.gc.ca under "Public Proceedings" or by using the file number provided above.

Background

5. Between 1998 and 2005, TICI used certain spare unconditioned local copper channels provided by TCC under Tariff Item 522 and its predecessor tariffs to provide an Internet service. However, when TCC introduced a new wholesale asymmetric digital subscriber line (ADSL) service in 2005, TICI discontinued such use by migrating its services in place at the time to the new TCC wholesale ADSL service.

¹ The Alberta SuperNet is a high-speed network that connects to government offices and other locations in over 400 communities throughout Alberta.

6. In June 2006, TICI initiated a new request for the provision of an unconditioned local copper channel from TCC in order to provide a high-speed Internet service. TCC provided a local channel under Tariff Item 522. However, when the channel was passed over to TICI, the presence of loading coils made the service unsuitable for use in TICI's intended high-speed Internet service configuration.
7. Following another TICI request for an unconditioned local copper channel in 2008, TCC advised TICI that Tariff Item 522 only offered the capability to provide voice-grade service and could not be used to provide TICI's proposed high-speed Internet service. TICI was informed that unconditioned local copper facilities for high-speed data service were only available through the unbundled local loop service under Carrier Access Tariff (Former TCI (Alberta only)) Item 215, Local Network Interconnection and Component Unbundling (Tariff Item 215), which would require TICI to rent space from TCC and co-locate its high-speed Internet service equipment in TCC's central office.

Issues

8. The Commission considers that the issues to be addressed in this decision are:
 - I. Does Tariff Item 522 permit the provision of the service configuration requested by TICI?
 - II. Should TCC be required to file a tariff for provisioning unconditioned local copper channels?

I. Does Tariff Item 522 permit the provision of the service configuration requested by TICI?

9. Tariff Item 522, which was filed in 2003, was designed to combine into one tariff various analogue private line services previously provided under separate tariffs.
10. TICI argued that:
 - when TCC proposed to combine its tariffs in 2003, it did not state that it would no longer provide unconditioned local copper channels for high-speed data services; and
 - TCC's tariff permits TICI's proposed service configuration under its provision allowing for "permissive use."
11. TCC noted that Tariff Item 522 is a retail tariff and not a tariff to provide unbundled components or facilities to accommodate a wholesale service. TCC submitted that its tariff provides the capability to support only voice-grade services as defined in the tariff and that facilities ordered under the tariff would be provisioned accordingly.

12. The Commission notes that, in its 2003 filing letter proposing the approval of Tariff Item 522,² TCC stated that its modified service description for analogue private line services was intended to clarify that these services are voice-grade service offerings to be used only to support applications that fall within voice-grade parameters. The tariff definition approved for local voice-grade channels reads, in part, as follows:

Local Voice-Grade Channels ("Local Channels") are those with the bandwidth to carry telephone speech or its equivalent (within a frequency band of 300 to 3,000 hertz).

13. The Commission also notes that Tariff Item 522 provides for the use of analogue facilities to offer data services on a permissive basis. Such services are provided without any guarantee that they will work as intended and with the proviso that they must not cause harm to TCC's network.
14. The Commission considers that it is evident that TCC's service is intended for use with services, either voice or data, that fall within voice-grade parameters. In this respect, the Commission notes that the tariff provision permitting the use of analogue local copper channels for data transmission would be restricted to these parameters.
15. The Commission considers it reasonable that TCC's revised tariff definition, as approved in 2004,³ would be applied on a going-forward basis. While TCC permitted a limited number of existing configurations to remain in place that might have been used for data services at speeds exceeding voice-grade parameters, the Commission is of the view that TCC's refusal to provide new channels for high-speed data transmission is reasonable.
16. In light of the foregoing, the Commission concludes that the current tariff definition of a voice-grade channel provided under Tariff Item 522 would not permit the provision of the service configuration requested by TICI.

II. Should TCC be required to file a tariff for provisioning unconditioned local copper channels?

17. In the event of a Commission determination that TICI's proposed configuration cannot be provided under Tariff Item 522, TICI requested that the Commission direct TCC to establish a tariff for unconditioned local copper channels.
18. TCC argued that the provision of unconditioned local copper channels is neither prudent nor sustainable in light of the evolution of its network from copper-based facilities to fibre-based facilities, as TCC rolls out more ADSL services using fibre facilities that are not compatible with TICI's proposed configuration.
19. In considering TICI's request, the Commission examined the following issues: the risk of spectral interference or crosstalk; the availability of alternative configurations from TCC; and the expansion of high-speed Internet service in rural Alberta.

² Tariff Notice 117, dated 19 August 2003

³ Approved in Telecom Order 2004-329

Would the provision of the channels requested by TICI result in spectral interference or crosstalk?

20. TCC submitted that TICI's use of the channels in the configuration that it requested to provide its high-speed Internet service could cause spectral interference or crosstalk on adjacent copper pairs in use for other customers, such that high-speed Internet services provided to TCC's customers could be degraded.
21. TICI submitted that TCC's claim of spectral interference or crosstalk is overstated, since TICI previously used TCC's unconditioned local copper channels for six years, during which time it did not receive any complaints regarding such use. TICI further submitted that it would work with TCC to resolve any service issues, and would remove the service if such issues could not be resolved.
22. TCC submitted that TICI's allegation that spectral interference or crosstalk was not evident during its previous use of unconditioned local copper channels does not mean it was not an issue, for several reasons:
 - some of TICI's previous services and applications were different from what TICI proposes to offer today;
 - at that time, the services being offered were "best effort" Internet services that did not have fixed and guaranteed speeds and were thus able to tolerate some interference, albeit with potential for some degradation of service; the multi-media services being offered today, such as Internet protocol television, have no such tolerance; and
 - the limited use of the channels for high-speed Internet services might not have resulted in problems being identified by customers or, if a problem was reported, the root cause may not have been identified.
23. The Commission notes that it acknowledged the potential for spectral interference or crosstalk in similar circumstances in Order 2000-983, in which it made the decision to allow digital subscriber line service providers the same interconnection benefits at the central office as competitive local exchange carriers.⁴ In that order, the Commission recognized that interference can be a concern where high-speed data offerings are in cable bundles that also contain facilities for other data customers.
24. Consistent with its previous conclusions, the Commission considers that spectral interference or crosstalk could also occur in this case. This is particularly relevant where transmissions from a TICI point of presence, where its centralized high-speed Internet service equipment is located, are at a higher power level than transmissions originating from a TCC end-customer who shares cable in the same bundle with TICI.
25. Accordingly, the Commission considers that the provision of the channels requested by TICI could result in spectral interference or crosstalk that could cause degradation of data services provided to TCC customers.

⁴ See paragraph 23 of the order.

Are there alternative configurations available from TCC?

26. TCC argued that, in order to receive service under the appropriate tariff, TICI should co-locate its high-speed Internet equipment in TCC's central office and request service under Tariff Item 215. TCC submitted that this configuration would require one unbundled unconditioned local loop to connect TICI's customer to TICI's equipment in the TCC central office and would eliminate the effects of spectral interference or crosstalk.
27. TCC provided estimates of the costs associated with its provision of co-location services to TICI under Tariff Item 215, which included approximately \$58,000 in one-time costs and \$425 per month for space and power. These costs do not include charges for the unbundled local loops and any charges that might apply to remove conditioning equipment from the loops.
28. TICI argued that there should be no requirement for it to co-locate in the TCC central office since only a point-to-point local private channel is required between its location and its customer. Further, TICI noted that it already has arrangements in place to locate its centralized high-speed Internet service equipment outside of the TCC central office, in the Alberta SuperNet point of presence.
29. TICI also submitted that TCC's proposal would be cost prohibitive, such that in some communities no payback would ever be achieved, while in others it would take several years to reach a break-even point.
30. The Commission considers that TCC's proposed configuration would generally not be economic, particularly when one considers the relatively high cost of the service associated with Tariff Item 215 in relation to the limited demand for the TICI high-speed Internet service that may exist in many rural communities.
31. TICI submitted that, as an alternative to the TCC proposal, the Commission could provide the option for the provision of a dedicated facility between the TCC central office and TICI's point of presence. This would ensure that cable bundles connecting to TICI's centralized high-speed Internet equipment would not be shared with TCC's end-customers.
32. The Commission notes that, in the past, TCC has provided a link extension in the form of a dedicated cable between its central office and a competitive local exchange carrier's premises. The purpose of provisioning the facility was to mitigate or eliminate any potential for spectral interference or crosstalk. The Commission considers that this alternative may be appropriate in some communities depending upon the cost and the feasibility of constructing a new dedicated facility.
33. In light of the foregoing, the Commission notes that the parties have the option to negotiate the provision of dedicated facilities, as discussed above, to negate any requirement to co-locate. Such an agreement must be filed with the Commission for the public record within two days of the date it is entered into, pursuant to Telecom Regulatory Policy 2009-19.⁵

⁵ See paragraph 43 of the decision.

Would implementation of TICI's proposal likely expand high-speed Internet service in rural Alberta communities?

34. TICI submitted that it seeks to use unconditioned local copper channels in order to provide high-speed Internet service in rural communities served by the Alberta SuperNet network.
35. The Commission notes that the TICI service model requires the availability of spare copper channels that must be unconditioned and suitable for data transmission. Further, the channel distance, end-to-end, generally cannot exceed certain lengths if a useful connection speed is to be maintained.
36. The Commission also notes that the TCC tariff rates for local copper channels vary by distance and typically range between \$23 and \$66 per month for each channel. TICI or the end-customer would be required to absorb these relatively high costs, along with any costs associated with removing conditioning equipment where required, in addition to the other costs to provide service, including modems, access to the Alberta SuperNet, and access to the Internet.

Conclusion

37. Given the relatively high cost and expected limited availability of suitable underlying facilities, the Commission considers that the proposed TICI service would not be generally available and affordable to many residents in rural communities connected to the Alberta SuperNet network. Accordingly, the Commission concludes that TICI's proposal would result in only limited expansion of high-speed Internet service to residents in these communities.
38. The Commission notes that it has not mandated any incumbent local exchange carrier to provide unconditioned local copper channels to permit transmission of high-speed data as proposed by TICI. Further, the Commission considers that TICI's proposed service configuration is not compatible with the increased deployment of fibre facilities that, in many instances, are replacing copper facilities.
39. In light of the foregoing, the Commission concludes that there is no requirement to order the development of a new tariff.

Commission's determination

40. Based on all the above, the Commission **denies** TICI's request that TCC be required to make available unconditioned local copper channels.

41. The Commission considers that its determinations in this decision advance the telecommunications policy objectives set out in paragraphs 7(a), (b), and (f)⁶ of the *Telecommunications Act* and are otherwise consistent with the Governor in Council's *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, P.C. 2006-1534, 14 December 2006.

Secretary General

Related documents

- *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
- *Amalgamation of Analogue private line services*, Telecom Order CRTC 2004-329, 30 September 2004
- *Digital subscriber line service providers' access approved for unbundled loops and co-location*, Order CRTC 2000-983, 27 October 2000

This document is available in alternative format upon request, and may also be examined in PDF format or in HTML at the following Internet site: <http://www.crtc.gc.ca>

⁶ 7(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;
7(b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;
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.