

Appendix 3:

**Impact on incentives to invest from mandated access to
Incumbent Carriers' networks at reduced rates**

4 May 2009

Table of Contents

	Page
1.0 INTRODUCTION.....	1
2.0 THE CASE OF CDN	1
2.1 Background	1
2.2 Impact of the CDN decision on competitors	2
3.0 CONCLUSION	8

1.0 INTRODUCTION

1. This Appendix illustrates the potentially harmful impacts on competing carriers' incentives to invest from mandated access to wholesale higher speed Ethernet services at reduced rates. This is accomplished by way of illustration of the impacts on carriers' investment decisions following the release of the Commission's Competitor Digital Network (CDN) services decisions mandating access to the ILECs' digital network access, transport and channelization services (i.e. CDN) at reduced rates.¹ The case of high-speed CDN provides a direct parallel for the potential impacts on incentives to invest since CDN services utilize the same underlying fibre access and transport facilities as utilized to provide Fibre Ethernet services. Fibre Ethernet services are primarily used to provide data and voice services to large Enterprise customers, which are the subject of MTS Allstream's petition. In the following sections Bell Aliant Regional Communications, Limited Partnership and Bell Canada (collectively, the Companies) provide a brief summary of the impact of the CDN decision on the incentives for competitors to invest in alternate networks as expressed in the competitors' own words.

2.0 THE CASE OF CDN

2.1 Background

2. In 2002 the Commission ordered the ILECs to develop a Competitor Digital Network Access (CDNA) service,² initially to enable competitors to provide digital access services to end-customers located in the same ILEC exchange as were the competitor's network facilities. This service was commonly referred to as CDNA service. On 3 February 2005, the Commission finalized the scope and rates of this service in what became known as the CDN Decision (Decision 2005-6).³ In Decision 2005-6 the Commission significantly expanded the scope of the original CDNA service to include intra-exchange and intra-metropolitan area transport and channelization (i.e. aggregation and disaggregation capabilities) services as part of the suite of services. This expanded suite of services became known as CDN service.

3. Low speed CDN access services (i.e., DS-0 and DS-1 access) are generally utilized to provide voice and data services to small and medium business customers or smaller branch offices of large companies, since the capacity requirements to these locations can be met

¹ See Telecom Decision 2002-34, *Regulatory framework for second price cap period*, 30 May 2002, (Decision 2002-34) paragraphs 183 and 192; and Telecom Decision CRTC 2005-6, *Competitor Digital Network Services*, 3 February 2005, (Decision 2005-6) paragraphs 167 to 169 and Appendix 1.

² Decision 2002-34, paragraphs 183 and 185.

³ Decision 2005-6, paragraphs 167 to 169 and Appendix 1.

through smaller less expensive bandwidth "pipes" (i.e. DS-0 or DS-1 access lines). The same is true for lower speed Ethernet services – i.e. these services are used for the small and medium business customers and smaller branch offices of large companies. Low speed CDN access services are provided over copper facilities at cost-based rates approved by the Commission. Whereas high-speed CDN access and transport services (i.e., at DS-3 and above) utilize the same underlying fibre facilities as are utilized to provide Fibre Ethernet services and are used to provide voice and data services to enterprise customers, which are the subject of MTS Allstream's application. The case of high-speed CDN service is particularly instructive, therefore, in demonstrating the potential impacts on incentives to invest in competing fibre networks should access to the ILECs Fibre Ethernet services be mandated at reduced rates.

2.2 Impact of the CDN decision on competitors

4. The impact of the CDN decision on competitors was almost immediate. For example, Bell Canada's capital investment expenditures in western Canada, where Bell Canada operates as a Competitive Local Exchange Carrier (CLEC), were impacted shortly after the release of the CDN Decision. To illustrate, Bell Canada's western operation was providing digital network access and private line services to a retail customer in Alberta and a wholesale customer in British Columbia. Bell Canada was serving these customers via the incumbent carrier's access facilities and had determined in both cases that it would be cost effective for Bell Canada to construct its own access facilities to serve these customers. Following the CDN Decision, and notably the availability of expanded services at reduced rates, Bell Canada re-evaluated its construction decisions and determined that the construction of the above-noted facilities was no longer economical. The facilities were never built and Bell Canada continues to rely on the incumbent's facilities to serve these locations.

5. Furthermore, over the period of 2004 to 2007, despite moderate growth in total circuits supplied by Bell Canada in Alberta and British Columbia (i.e. 8% total growth between 2004 and 2006) Bell Canada actually cut its capital allocation budget for constructing the required facilities as it switched strategies to that of leasing the underlying facilities from the ILEC to take advantage of the favourable CDN rates mandated by the Commission.

6. The CDN Decision not only impacted Bell Canada's investment in new facilities, but has also resulted in the underutilisation of its own network access facilities in western Canada. Through the acquisition of 360networks, Bell Canada procured an extensive fibre network

across major cities in western Canada. Bell Canada was considering the migration of leased DS-1, DS-3 and OC-3 accesses in 20 buildings from the ILEC to its previously acquired access facilities in or near these locations. The migration plan was to have been completed in three phases and would have involved the use of existing dark fibre, equipment augmentation, and the installation of new fibre drop wire in a few locations. The first phase of the migration plan would have required the use of fibre drop wire to connect to nearby access fibre and new equipment at the customer premises locations. The second phase would have entailed using existing in-building and access dark fibre and required new customer premises equipment, while the third phase would have required only equipment augmentation at the customer premises and in the impacted network ring nodes. This planned migration was reassessed in light of the Commission's determination on CDN and the migration plan was abandoned. The payback period in the incremental cost and benefit analysis of the migration business case had essentially doubled due to the significant reduction in rates for the leased facilities.

7. The experiences of Bell Canada were in no way unique. During the proceeding that resulted in Decision 2008-17⁴ (the Essential Facilities Decision), competing retail carriers to Bell Canada recounted similar experiences. TELUS explained in detail the disincentives to invest created by the CDNA and CDN decisions. First in response to an interrogatory addressed to TELUS by MTS Allstream, wherein TELUS stated:

TELUS, similar to other firms operating in a capital intensive industry, carefully considers numerous factors in making decisions relating to the allocation of its scarce capital resources and in determining the most beneficial and advantageous means of providing service to our customers. In doing so, TELUS must consider a range of objective and subjective factors including, but not limited to, economic and financial analysis, strategic considerations and existing TELUS network capabilities.

Coincident with several important Commission decisions which enabled competition in the provision of local services, TELUS examined the opportunity to extend operations outside of its ILEC territory and determined that it would be financially and strategically beneficial for TELUS to enter the market as a CLEC. The strategy that TELUS developed and initiated to facilitate this expansion was focused on proactively building the facilities necessary to compete. This strategy was driven by a desire to own and operate the network TELUS was using to provide service to its customers and the fact that costs to lease facilities at the time were high, particularly on non-forborne routes and in respect of non-forborne services.

⁴ Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service*, 3 March 2008.

TELUS proceeded as planned and proactively built or acquired facilities, beginning in 1998 when it initiated the construction of a fibre network in Toronto. In addition, TELUS also undertook projects to build facilities in other key areas of Canada. The strategy was well underway and TELUS was successfully growing capabilities in its non-ILEC territory and building a facilities-based foundation for its CLEC operations when the Commission released Regulatory framework for second price cap period, Telecom Decision CRTC 2002-34. In Decision 2002-34 ("Decision 2002-34"), the Commission introduced competitor digital network access services ("CDNA") with a purported view to fostering facilities-based competition based on the Commission's belief that competitors were at a competitive disadvantage relative to the ILECs in the absence of such services.

Decision 2002-34 forced TELUS to revisit its strategy in light of the significant impact that the new CDNA rates had on its financial "buy versus build" models for network design. **As a growing CLEC, TELUS determined that it would be much cheaper to lease CDNA facilities from the ILEC rather than incur the risk and capital outlay necessary to build equivalent capacity. As a result, TELUS shifted its CLEC network strategy to take advantage of CDNA services to support its customer reach and footprint coverage objectives.** Of consequence is the fact that this revised strategy was adopted in light of the fact that the strategic advantages inherent in owning the network, such as the control of end-to-end facilities, improved service assurance capabilities and administrative simplicity, were not sufficient to outweigh the financial advantages of leasing CDNA service from the ILEC.

The shift in strategy occasioned by the introduction of CDNA manifested itself through two key activities. First, TELUS began building out more collocations in order to gain access to CDNA services from the ILECs. Second, TELUS focused on building core network capabilities, linking TELUS PoPs with the newly opened collocations. **Capital was directed away from the original objective of building access facilities, as this was no longer strategically advantageous, nor was it economically sensible in light of the low-cost alternative.**

In a follow-up decision, Competitor Digital Network Services, Telecom Decision CRTC 2005-6, the Commission extended its policies from Decision 2002-34 by ordering the ILECs to provide competitors with mandated access to services such as DNA access and links, DNA intra-exchange, central office channelization, non-forborne metropolitan IX, copper and optical co-location links and other CO connecting links. Further, the Commission also classified each of the CDN services as either a Category I Competitive Service or Category II Competitor Service and established "cost +" pricing treatment for each service. The result of these two CDN decisions is that carriers find themselves in an environment where the incentive, indeed even the need, to build facilities was further reduced as now even the facilities and capabilities necessary to reach the collocations had become available at prices that made building networks seem financially imprudent or, at least, a questionable pursuit. As such, these decisions did not foster facilities-based competition.

The CDN regime is one example of how the regulatory wholesale regime has created and, unless altered, will perpetuate a CLEC dependency on the ILEC for nearly all access and a growing percentage of intra-and inter-exchange facilities. So long as the current regime is maintained, whereby CLECs enjoy the

mandated availability of these services at mandated low price, the rational CLEC will continue to avail itself of these advantages, overwhelming the natural incentives to build facilities and seek alternative technologies and alternate solutions to meet business objectives.⁵ (emphasis added)

8. These comments were later re-affirmed by TELUS' witnesses during the oral hearing phase of the proceeding, in particular TELUS' witness stated:

MR. FLEIGER: I would just like to interject here for a moment because I was intimately involved in this during this time period, and I can attest to the fact that when the Commission were making their decisions, and even leading up to the decisions, because we weren't sure what the ultimate outcome of the CDN and CDNA decisions would be, but we were actively planning and modelling various scenarios in regard to building our own access facilities in certain situations, not all situations, and what the economics would be if we availed ourselves of the leased rates associated with CDN and CDNA.

There was absolutely no doubt to us that it made little, if any, economic sense to build any access facilities unless they were for very strategic purposes.

There may be an instance where you have acquired a customer, it could be a national customer, who has a large headquarters in a city in eastern Canada. It could have a critical data centre that is fundamental to its operations, and if that was the case, we would build access facilities.

But I can assure the Commission that our costs, our capital expenditures for building these types of facilities, decreased substantially during that period.⁶ (emphasis added)

9. These comments were echoed by Videotron, which acts both as a competing retail carrier and as an alternate supplier to other competitors, wherein it originally stated:

Instead, CDN service prices were set at a level which severely undermined the ability of Vidéotron and other competitors in the market to compete in the market and greatly decreased the incentive for new entrants to build competing facilities.⁷

10. Later in the oral hearing, Mr. Béland testifying on behalf of Videotron elaborated further:

MR. BÉLAND: Yes. But, if you want me to comment on the impact on the former Vidéotron Telecom, which –
MR. SCHMIDT: That is my whole object here.

⁵ TELUS(MTS Allstream)12Apr07-106.

⁶ 17 October 2007 Transcript, paragraphs 13225 to 13228.

⁷ Videotron, 15 March 2007, paragraph 57.

MR. BÉLAND: – for the information of everyone, was merged into Vidéotron January 1, 2006, but I will refer to it as Vidéotron Telecom, which it was at the time.

I guess what was maybe particular about our circumstance at that time was that Vidéotron Telecom was a CLEC, it became a CLEC very early on, I think in 1998 or, sorry, maybe even 1996, even prior to Decision 97-8. And Vidéotron Telecom was focused, to a large extent, on the wholesale market. Vidéotron Telecom's business plan, to a very large extent in those early years, was to be a carrier's carrier. So Vidéotron was selling these CDN equivalent services to people like other wireline CLECs, wireless carriers. That was a very large portion of the company's business.

What happened when the CDN regime was introduced is that suddenly whereas Vidéotron was in the market building facilities and competing against the ILECs' retail rates for those DNA services

MR. SCHMIDT: Which were once retail services and CDN is just a new name and a lower price for a retail service.

MR. BÉLAND: To be precise, imagine that there is a wireline CLEC that wants Vidéotron to do some building for it. That was basically the business plan.

You are a wireline CLEC, or a wireless carrier from somewhere else in Canada, and you want us to do some building for you, and we will put some fibre in the ground and we will sell you the CDN equipment and services.

That was a large part of Vidéotron Telecom's business plan.

We would sell these services to these companies at a competitive rate, relative to what the ILEC's rates were in those days.

What happened was that, suddenly, the ILECs were mandated to sell those very same services at much reduced rates.

I won't get into whether those much reduced rates – on what basis they were calculated and how appropriate that was. **What mattered to Vidéotron Telecom at that time was the dramatic reduction in the price at which our customers could get those services from someone else. As a result of a regulatory decision, and as a result of that, Vidéotron lost a considerable part of its customer revenue base.**

...

MR. SCHMIDT: Are you still in the wholesale business?

MR. BÉLAND: Yes.

MR. SCHMIDT: Has CDN caused you to change the pace or nature of your facility build out?

Is your wholesale network static, or is it growing?

MR. BÉLAND: **It's still growing, but I think it's fair to say that it's growing at a much less rapid rate than it was prior to CDN.**⁸ (emphasis added)

11. Similar to the experience of Videotron, alternate suppliers of network facilities also pronounced a negative impact on their incentives to build as a result of the CDN decisions. For example Atria/SCBN stated:

The pricing associated with the CDN services was at a level that prevented Atria from constructing facilities that would allow Atria to compete with the

⁸ 16 October 2007 Transcript, paragraphs 1304 to 1335.

CDN services offered by the ILEC. As a result other service providers purchased CDN access services from the ILEC rather than local access and transport services from Atria. The impact from Atria's perspective was slower growth, overall reduction in revenue as rates for all services were forced lower due to low CDN rates, and less competitive infrastructure being constructed.⁹ (emphasis added)

12. Enmax stated:

ENMAX Envision Inc. builds out its facilities based on customer orders. **When CDN services became available, ENMAX Envision Inc. ceased to offer T1, DS1 and DS3 services due to the low CDN prices.** These services were sold to our wholesale accounts (CLECS). Without the revenue potential from these services, ENMAX Envision Inc. build out for these services ceased as well.¹⁰ (emphasis added)

13. Hydro One Telecom stated:

CDN services pushed pricing down for local access in general so wholesale carriers would choose CDN over HOT (Hydro One Telecom) services requiring a build as we could not build at the CDN price.¹¹ (emphasis added)

14. Telecom Ottawa stated:

CDN services were a barrier for alternative service suppliers such as Telecom Ottawa. Both the wholesale pricing and terms of service pre-empted Telecom Ottawa from being a competitive alternative supplier to other carriers in metro Ottawa.

CDN monthly charges and terms associated with T-1 or DS-3 services were so low and flexible that the business case economics could NOT justify the capital costs to build expanded fibre facilities to service other carriers. As a result, not only did CDN services prevent new competitors from entering the business, but existing carriers had no alternative but to obtain metro services from the incumbent ILEC.¹² (emphasis added)

⁹ Atria/SCBN(The Companies)12Apr07-20.

¹⁰ Enmax(The Companies)12Apr07-20.

¹¹ HydroOneTelecom(The Companies)12Apr-07-20.

¹² Telecom Ottawa(The Companies)12Apr07-20.

3.0 CONCLUSION

15. As illustrated by the competitors' own words above, mandated access to the ILECs' networks at reduced rates can have significant impacts on the incentives for competing retail service providers and alternate network providers to invest and build alternate networks.

16. While the above examples in and of themselves provide compelling evidence of the potentially devastating impact on incentives to invest in alternate networks as a result of mandated access to the ILECs' networks at reduced rates, the experiences of the telecom industry is in no way limited to just those instances cited above. Of all the parties at the oral proceeding that led to Decision 2008-17, only MTS Allstream claimed that the Commission's CDN decisions provided MTS Allstream with an incentive to build. Everyone else stated that these decisions had no impact or that they undermined their access construction programs. Even MTS Allstream's pronouncements that the CDN decisions provided it with an incentive to build must be considered carefully. Under cross-examination in the hearing that led to Decision 2008-17, it could not explain why in 2002 it had access to approximately 3,300 buildings using its own facilities, but in 2007 this number was down to approximately 2,300.¹³ Regardless of why the numbers went down, what is clear is that they did not go up.

*** End of Document ***

¹³ 26 October 2007 Transcript, paragraphs 13228 and 13271 to 13291.