Executive Summary

REGULATED NETWORK ACCESS:

THE CONTRAST BETWEEN TELECOMMUNICATIONS AND RAILWAYS

Prepared for

Canadian Pacific Railway

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EXECUTIVE SUMMARY

This study has been prepared by Wall Communications Inc. at the request of Canadian Pacific Railway ("CPR"). It is intended to supplement CPR's research and analysis of transportation issues of importance to the review of the *Canada Transportation Act* ("CTA") currently being conducted by the CTA Review Panel in consultation with carriers, shippers, passengers and other interested parties.

A key issue to be addressed as part of the CTA review involves the potential costs and benefits of introducing specific measures such as regulated or forced access upon railways in order to increase competition in freight transportation in Canada. In support of such measures, regulatory reform of the telecommunications industry is often cited. Over the last twenty years or so, the telecommunications services industry in Canada, as in most other countries, has been opened to competition. Measures have been introduced to allow interconnection of competitive networks as well as the unbundling and resale of telecommunications facilities and services. While open access in the telecommunications market is generally considered to be a qualified success, the question of whether the open access model in the telecommunications industry is transferable to the railway industry remains unanswered.

In order to examine the applicability to railways of the type of regulated access that has been adopted in telecommunications, we first begin by comparing the environmental and structural similarities and differences between the industries.

We conclude that while both industries are network-based, a number of significant differences exist. These differences can be generally categorized under the following headings:

- Nature of Service,
- Competitive Experience,
- Historical and Recent Economic Performance,
- Technological Change and
- Regulatory Treatment.

Nature of Service

Nature of service differences begin with the physical versus electronic character of the two networks. In brief, the need to transport physical goods in physical containers has important implications for railway costs, including technological opportunity and safety conditions, which do not occur in telecommunications. Further, the railway network only comprises one segment of the overall transportation industry, whereas inter-connected telecommunications networks are capable of carrying telecommunications from any specific location in Canada to any other specific location, not only within Canada but throughout the world.

While a railway line can only carry freight along a route which is pre-determined by the physical location of the tracks, telecommunications services can be transmitted over an almost limitless number of routes due to the ubiquity of electronic networks and their transmission pathways.

Competitive Experience

The industries have experienced fundamentally different competitive conditions. The two national railways in Canada have competed with each other almost since the industry's inception, while competition in telecommunications is a relatively recent phenomenon, arising after more than half a century of monopoly provision.

Due to the competitive situation facing at least some elements of the railway industry, combined with the high fixed costs required for railways, pricing has tended to vary by route (and the availability of competitive alternatives on each route). That is, the margin between price and cost has tended to be highest where demand is least elastic on a route by route basis. In telecommunications, high price-cost margins generally characterized the long distance market, with below-cost prices in all residential local markets.

Historical and Recent Economic Performance

Telecommunications has experienced (particularly in the last few decades) a record of economic growth unsurpassed by any other sector of the economy. This growth, which has been largely driven by technological change combined with competitive forces, has led to a huge increase in the capacity and efficiency of telecommunications networks.

By contrast, output growth in the railway industry has been much more modest. It appears that this has been caused in part by relatively static demand for the types of physical commodities carried by railways.

A key difference between the industries has been "bottom-line" economic performance. While telecommunications has a record of enviable rates of return over a lengthy period, the railway industry has usually failed to generate a satisfactory rate of return, particularly during the last decade. As noted earlier, although price tends to vary according to what the market will bear, the overall financial performance of the industry suggests that anti-competitive or abusive pricing is not a significant policy concern.

Technological Change

Perhaps the most important difference between the two industries results from the rapid pace of technological change (and the opportunities it has created) in the telecommunications industry. Advances in cable medium (e.g. fibre optics), signal technology (e.g. digital), wireless technologies (e.g. cellular, PCS and broadband wireless) and switching and signalling processing power (computers) has allowed the telecom industry to increase the efficiencies and capacity of existing networks while also creating opportunities to create new networks and introduce new services. At the same time, demand for telecommunications has soared, driven by new uses such as e-commerce, the Internet and mobile telephony.

Pricing, competition and regulation have all been impacted by the force of technological change in telecommunications.

Regulatory Treatment

Telecommunications regulation was formerly concerned with ensuring that telecommunications service pricing was fair to consumers, while allowing carriers a strong likelihood of earning a sufficient return on investment so as to maintain and grow their business. With the advent of competition, enabled first by technological change and then supported by regulatory change, the emphasis turned to ensuring fair treatment of competitors who needed to use certain network elements and services of the dominant carriers. Prices to consumers have also remained a regulatory concern, although with more and more telecom services being subject to competition, the need for regulatory oversight has diminished.

Throughout the transition period, the regulatory system has utilized mechanisms to support universally available and affordable telecom services. Initially this was accomplished through differential pricing mark-ups (i.e. long-distance rates were

priced well above cost to support lower-than-cost local residential rates). The goal is now achieved through a contribution system whereby all long-distance service providers must pay into a fund based on the traffic they carry. This fund is then allocated to subsidize low local rates in all parts of the country.

Beginning in 1967 and continuing through to 1996, the railway industry has also undergone considerable regulatory reform, including introducing greater pricing flexibility, competitive access, final offer arbitration and greater market exit flexibility. These changes have created a more competitive environment, but have not involved the same extent of mandated access and resale provisions that were introduced in the telecommunications industry.

The Question of Regulated Access

Given the extensive differences between the industries, it would seem unlikely at first glance that a solution designed specifically to suit telecommunications conditions and concerns would be suitable "carte blanche" for the railway industry.

"Regulated Access" as it is used in telecommunications can be taken to mean the regulation of terms and conditions by which competitors can interconnect with other networks and the terms and conditions governing the use of essential facilities and services controlled by dominant incumbent carriers. It is also worth noting that the setting of pricing terms for these services has been greatly assisted by a heritage of in-depth and comprehensive costing examinations and methodology development.

Regulated access in telecommunications was adopted as a means of introducing competition into a monopoly market. In an environment of rapid technological change and dramatically increasing demand, regulated access was a solution targeted to overcome the worst attributes of monopoly: lack of choice to customers and lack of innovation.

It was well-suited, in our opinion, because of certain, unique conditions characterizing telecommunications: available (and increasing) capacity for competitors, the ability to carry multiple traffic streams without undue concern for network reliability and functionability, and an environment conducive to innovation. Technological change, economic performance and the electronic character of the service are major contributing factors to these unique conditions.

By contrast, these conditions do not appear to apply to the railway industry. In addition, we believe the key concerns facing the railway industry relate to possible bottlenecks in specific regional routes (where only a single actual or virtual supplier exists) and a low overall rate of return that may threaten the long-term viability of the industry. Regulated access as it has been developed and deployed in telecommunications is not particularly well suited to these concerns. Rather, we would suggest examining solutions that specifically address the limited number of instances where prices may be grossly misaligned with costs while at the same time recognizing the overall financial requirements of the industry.