



**Lemay-Yates
Associates
Inc.**

**The case for
four mobile telecom
operators in Canada**

CONFIDENTIAL

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EXECUTIVE SUMMARY

Background for this Independent Report

Lemay-Yates Associates Inc. (LYA) was mandated by Microcell Telecommunications ("Microcell") to provide an independent perspective addressing the following question "Can four mobile carriers thrive in Canada?"

LYA has relied on its own expertise, experience and on publicly available information to develop this Report.

This Report addresses key issues inherent to the discussion surrounding the number of mobile operators in a country such as Canada. This includes critical aspects such as the financial viability and attractiveness of the investment opportunity provided by Canadian mobile carriers as well as benchmarking of key operations metrics with those of our major trading partner, the United States. Of particular interest are comparisons related to the level of revenues generated by each subscriber and minutes of usage on the mobile network as well as capital investment metrics required to successfully develop the mobile market in each country.

The top 10 key findings from the LYA analyses are highlighted in this Executive Summary. The main body of the Report is organised as follows:

First, the market opportunity still awaiting mobile communications in Canada is forecast and discussed. The next section deals with the impact of the number of mobile operators on the development of the market in other countries with similar economic characteristics to Canada.

Third, the questions surrounding pricing plans and revenue metrics are addressed, comparing Microcell with other service providers in Canada and in the United States.

Fourth, LYA has developed a complete assessment of the financial attractiveness of a mobile carrier such as Microcell and compared it to an incumbent carrier in Canada.

Lastly, LYA discusses the issue of the profitability of the Canadian mobile industry. Plainly spoken, can the industry make money, has it been profitable in the past and are there other issues hiding behind the numbers?



Key findings

The top 10 key findings from this Report are summarized below.

The impact of the number of operators on the mobile market

1. Canadian mobile customers and the Canadian industry have benefited from the fact that four carriers were licensed by Industry Canada from the perspective of increased innovation and services offerings as well as pricing packages targeted at different segments of the market. The benefits are reflected in the enthusiasm with which Canadian users have been embracing mobile services since PCS was introduced as the number of new subscribers per year has close to tripled in the five years after the introduction of PCS compared to the previous five years. Prior to the introduction of PCS, an average in excess of 500,000 new subscribers per year was added from 1992 to 1996. This number increased dramatically to an average exceeding 1.4 million new subscribers per year from 1997 to the end of 2001. The two new entrants (Clearnet and Microcell) captured between 35% to 39% of that growth in 1998 and 1999. Microcell captured more than 50% of the total growth of the two new entrants over that same period. Bell Mobility, Telus and Rogers AT&T Wireless also benefited substantially from a sharp increase in their yearly subscriber additions over the same period triggered by increased competition and the launch of digital services.
2. The number of mobile operators active in a country has a significant positive impact on the development of the overall market and therefore on industry dynamics. A comparison of subscriber additions before and after the launch of new operators in countries with similar economic characteristics as Canada demonstrates a strong relationship between subscriber growth and number of carriers. As highlighted in the following table, net yearly subscriber additions increased on average by over 300% in the 3 years after the launch of new operators in Australia, Germany, the UK and Italy and by over 500% when comparing on a +/- 5 year basis. The Canadian experience is in line with the trends experienced in other countries. Individual variations between countries are caused by a number of factors, which include mobile penetration achieved when new entrants were launched and the environment for fixed telephone services.



Subscriber additions – before and after new the entry of new operators

	Net subscribers additions - before and after launch of new operators					
	Average/year - 5 yrs		Average/year - 3 yrs		Ratio after/before	
	Before	After	Before	After	5 yr	3 yr
Total 4 countries: Italy, UK, Germany and Australia	2,110	11,957	2,309	8,105	5.7	3.5
Canada	529	1,453	698	1,156	2.7	1.7

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- Significantly, over recent years, the difference between the number of mobile operators per local market and thus the difference in the level of competitive rivalry in the mobile market has increased between Canada and the US. In Canada, approximately 63% of the population is served by 4 carriers at year-end 2002. In the US at year-end 2001, 80 % of the population was served by 5 carriers or more while more than 20% of the population was served by 7 or more carriers. One of the results of this has been that the Canadian performance in terms of mobile penetration now further lags behind the US. The Canada/US penetration lag has increased to close to 3 years, when just a few years ago it was less than 2 years.

The market potential for mobile in Canada

- Focusing on consumers, messaging and data services as well as wireline replacement are key drivers of growth and are reshaping mobile markets worldwide. LYA forecasts that these trends will result in an increase in penetration from the current 12 million to 21 million by year-end 2008 and close to 24 million by year-end 2012, leaving substantial room for each of the four mobile carriers to expand and thrive.

LYA also estimates that the usage of mobile services will increase significantly as new services and applications are being introduced in the Canadian market. As an example, LYA estimates that text messaging in Canada could increase by at least a factor of 10 over the next few years, from the levels achieved at the end of 2002 .

These trends converge with the business strategy pursued by Microcell, which has been an innovative service provider to the consumer segment. Microcell has also deployed a state of the art GPRS network and its entire subscriber base can use text messaging services which are rapidly increasing in popularity.



The questions related to ARPU and US/Canada price comparisons

5. It has been widely reported that the Average Revenue per User (ARPU) generated by Canadian mobile operators is significantly lower than what is achieved on average by US carriers. To compare facts, 2002 ARPU in the US was \$48.40 US¹ while it was estimated at \$48 Can in Canada, resulting in approximately 20% difference when comparing US and Canadian monthly subscriber revenues on a Purchasing Power Parity (PPP) basis. This difference is sometimes perceived as having a negative impact on the viability of the Canadian industry.

However, the discussion surrounding this key industry metric often misses two key elements.

The first one is the fact that Canadian ARPU was higher than the US² up to mid-year 2000. At that time, US carriers reversed the declining trend in ARPU while this trend persisted in Canada.

The second element is that this statistic hides the fact that the average Minutes of Use (MOU) per month per subscriber in the US is significantly higher than in Canada, leading to higher network costs. For example, the FCC reports that the average MOU in the US was 385 minutes in 2001, up from 255 in 2000 and 185 in 1999. This means each user has roughly doubled its monthly usage of mobile phone in two years.

Interestingly, both phenomena of increased ARPU and usage in the US developed in parallel with significant increases in competition among key US cities as more than 20% of the US population is now served by 7 mobile service providers or more. To carve their niche amid such strong competitive rivalry, US mobile carriers started to aggressively compete with wireline service offerings and promoting pricing packages with strong stimulation of usage that focused on the consumer segments. This has spurred substantial innovation and segmentation in service offerings, which generated higher ARPUs for the industry, contrary to expectations from the result of increased competitive rivalry.

The key point from this analysis is that increased competition, such as is the case with 4 service providers versus 3 or 7 versus 5, does not necessarily lead to lower ARPUs.

¹ As reported by CTIA as "Average Local Monthly Bill", for December 2002.

² Compared on a PPP basis.



There is still significant upside for mobile carriers to continue to innovate and to expand the scope and usage of their services without competing on price only.

6. Another key element of this discussion relates to the packaging of mobile services. The revenue generation impact of packages of mobile services can not be assessed by a simple calculation of price per minute consisting of total monthly price divided by total minutes included. And what may appear to be the lowest calculated price per minute does not necessarily mean that the carrier will experience a low ARPU since a host of other factors come into play, including subscriber mix and consumer behaviour.

Simple analyses of pricing packages comparing per minute prices do not yield a valid assessment. This is highlighted in the table below which compares calculated price per minute in consumer post-pay packages among a number of Canadian and US carriers. Based on advertised pricing for consumer/family oriented post-pay services, US carriers Triton/Suncom and AT&T Wireless sell their services at the low end of the range in terms of “price per minute”. However, they also generate the highest overall ARPU. Microcell has the lowest ARPU, but not because its service packages are “undercutting ” other carriers. Other Canadian carriers have higher calculated “price per minute” than US carriers but still generate overall lower ARPUs.

	Minimum price per minute	2002 ARPU
	based on package rate *	
Rogers AT&T Wireless **	\$ 0.025	\$ 45
Telus	\$ 0.032	\$ 55
Microcell	\$ 0.032	\$ 40
Verizon **	\$ 0.042	\$ 62
AT&T Wireless	\$ 0.022	\$ 73
Triton/Suncom	\$ 0.011	\$ 68

US \$ expressed in Cdn \$ using PPP-based exchange rate
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7. This discussion leads to the addition of another measurement of profitability for mobile carriers, the realized Average Revenue Per Minute or ARPM (not to be confused with the “average price per minute” than can be calculated from the



packaging of mobile services as highlighted in the table above). In this case, the reported US average was \$0.12 US per minute or approximately \$0.145 Can³ per minute in 2001. The ARPM in the US is thus substantially lower than what is achieved by Microcell, the Canadian leader in terms of MOU per month per subscriber with an estimated ARPM of \$0.19 in 2002.

The financial attractiveness of Canadian mobile carriers

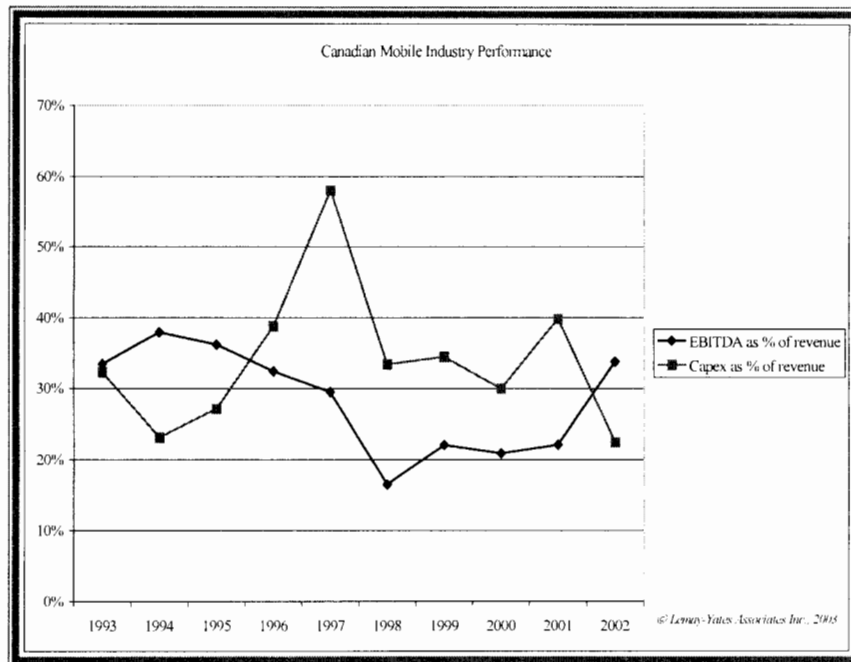
8. Is the Canadian mobile industry losing money?

This is a critical question and one that is not so simple to answer. Statistics Canada recently reported that “operating profits⁴ for wireless service providers soared to record levels in 2002”⁵. At the same time, the perception lingers that mobile operators are not profitable. LYA uses the indicator EBITDA-Capex to assess the profitability of the Canadian mobile industry. As highlighted below, EBITDA generated by the industry was higher than capital expenditures in the years 1993 to 1995, before the build-out of PCS networks was initiated. Cash flow generation turned negative in 1996 until the end of 2001 as mobile carriers deployed their digital PCS networks and subsequently upgraded to new technologies such as GPRS and 1XRTT. Cash flow generation turned positive again in 2002 and is still positive as of IQ 2003 results as mobile carriers improved their operating metrics and reduced capital expenditures over the last 15 months.

³ Using PPP exchange rate

⁴ Operating profits defined as Operating Revenues less Operating Expenses (which include depreciation).

⁵ Statistics Canada Press Release, April 15 2003.



Future outlook will depend on how carriers can manage technology upgrades and network expansion with increased operating cashflow generation. However, the industry is still experiencing significant growth for the foreseeable future.

A key finding from the LYA analysis is also that the mobile affiliates of the Incumbents Local Exchange carrier, i.e. Telus (even after the acquisition of Clearnet) and BCE, appear to have generated positive EBITDA-CAPEX cashflow every year since 1998 and that it is increasing. The performance of Rogers Wireless' performance is variable and Microcell's performance turned positive starting in the IV Q 2002. Telus and BCE mobile affiliates appear to reap significant benefits from their wireline networks and operations as well as from their respective mobile network sharing and resale arrangements.

9. Mobile communications is a bright spot in the telecommunications landscape. The LYA analysis demonstrates that a mobile carrier pursuing Microcell's strategy can generate positive valuation. Based on a conservative set of assumptions which incorporates network assets at cost, the internal rate of return (IRR) forecast for a consumer carrier pursuing a strategy such as that of Microcell is similar to that projected for an incumbent, i.e. in the range of 16% to 17%. Going forward, the Microcell business plan will benefit from its fresh start accounting and asset restatement. Taking the fresh start into account, the projected IRR increases to 35%.



10. The Canadian market can support the investment required for four active mobile telecom operators, while mobile operators maintain the ability to generate free cashflow over the coming years. A Canada/US comparison of total industry cumulative capital investment from 1993 to year-end 2002 developed by LYA demonstrates that Canadian carriers have spent an equivalent investment to their US neighbours on a per pop basis, but slightly more on a per subscriber basis.

Clearly, for the Canadian industry, there is a remaining challenge in stimulating both take-up rates and usage for mobile services. The results achieved by the Canadian industry as well as the experience in other countries demonstrate that this challenge can best be achieved through innovation and marketing of mobile to the broadest scope of subscribers in Canada.

Key metrics and future outlook on the Canadian mobile industry are positive at this point in time. All indications are that four mobile carriers in Canada can continue to thrive and be profitable in the foreseeable future within the current paradigm.