Unlocking the Competitiveness of the Fee: Is Canadian Mobile Service Providers Charging a Fee to Remove the Software Lock After the Contract Expires Anti-Competitive?

by

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Abstract

Most mobile phones in Canada contain software that prevents the consumer from using the phone on multiple networks. This is known as a ‘software lock’, and is installed prior to the point of sale by the mobile service providers. As of 2011, all three large Canadian service providers have adopted a similar practice to charge a fee to remove the software lock from phones. This fee applies even after the consumer’s service contract with the provider ends.

This thesis examines whether the practice of charging consumer a fee for removing the software lock after the contract expires is anti-competitive in Canada. Through examining economic theory and undergoing legal analysis, this thesis will argue that while the practice is clearly anti-competitive, it does not substantially lessen competition enough to be prevented under competition law. This thesis suggests that this industry practice should be prohibited through the passing of consumer protection legislation.
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TABLE OF CONTENTS

I. Introduction ................................................................................................................. 1

II. Background .................................................................................................................. 5
   A. History of the Mobile Phone Market ....................................................................... 5
      i. Initial Development of the Market ................................................................. 5
   B. Current Industry Environment .............................................................................. 12
      i. Active Competitors in the Market ............................................................ 12
      ii. Discussion of the Competitiveness in the Market .................................... 15

III. Explanation of Software Locking ............................................................................... 21
   A. Definition of Software Locking ........................................................................... 21
   B. Software Locking as a Second Technological Barrier ........................................ 22
   C. Process to Remove the Software Lock .............................................................. 23
   D. Software Locking in the Canadian Market ....................................................... 25
      i. Use by the Dominant Firms ......................................................................... 26
      ii. Use by the New Entrant to the Market ...................................................... 28
   E. Software Locking Around the World ................................................................... 28
      i. Finland .......................................................................................................... 29
      ii. Singapore ..................................................................................................... 30

IV. Relevant Legislation .................................................................................................... 33
   A. Telecommunications Act ..................................................................................... 33
   B. Competition Act .................................................................................................. 35
   C. Proposals For Legal Regulation of Software Locking ........................................ 36
      i. Federal ........................................................................................................... 36
      ii. Provincial ...................................................................................................... 38

V. Software Locking and Economic Theory .................................................................. 39
   A. Software Locking Practice as an Ex-Post Contract ............................................ 41
      i. Theoretical Basis ............................................................................................ 41
      ii. Analysis ......................................................................................................... 43
   B. Software Locking Practice as a Switching Cost ................................................ 46
      i. Theoretical Basis ............................................................................................ 46
      ii. Analysis ......................................................................................................... 47

VI. Software Locking and the Competition Act ............................................................ 52
   A. Abuse of Joint Dominance ................................................................................. 52
   B. Analysis ............................................................................................................. 53

VII. Conclusion ............................................................................................................... 60
INTRODUCTION

The fact is - the Canadian mobile phone industry is not ideal. Regardless of the contrary perspective expressed by lobbying groups in the media, it is undeniable that Canada is currently home to one of the highest costs for mobile phone service, one of the lowest market penetration rates, and one of the slowest rates for technological innovation in the developed world. In terms of the cost for service for example, a comparison to United Kingdom (“UK”) shows that Canadian consumers pay twice price for a minimum mobile phone service plan. While our prices for mobile service more closely resemble our neighbor south of the border, Canadians are still paying 12.5% more than their American counterparts. This evidence of high prices naturally leads into an intuitive feeling that there is something wrong with the competition in the market. Such a feeling becomes compounded when it is realized that the three companies, Rogers Communications (“Rogers”), Bell Mobility (“Bell”), and Telus Mobility (“Telus”), have roughly maintained the same market share over the past five years.

Under this hegemonic state of the Canadian wireless phone market, it is only natural that these incumbents would strive to maintain their market share through adopting potentially anti-
competitive practices. This is not to say that these companies are inherently devious or malicious
to the Canadian consumer, but instead that they are naturally drawn from an economic self-
interest perspective to defend their market share. Any increased competition in the Canadian
market would spell a certain plunge in annual revenue, as the Canadian mobile pie grows only
marginally bigger each year.\(^7\) With this incentive for anti-competitive behavior always present, it
is only natural to assume that any new practice adopted in unison by these dominant firms would
be appropriately scrutinized as to its future competitive effects. Unfortunately for Canadian
consumers in 2012, the recently adopted industry practice concerning software locks (“SLs”),
fell through the competition crack.

At separate times, dated over a year apart, all three major Canadian phone companies
adopted similar policies where they would start charging a flat fee for removing the SLs from
their devices. Even though the amount of this fee and conditions required varied, the practice of
charging a set fee even after the expiration of the contract was identical. This event set off a
maelstrom of newspaper articles and parliamentary press releases, but has failed to trigger a
significant academic critique on the potential competitive effects.

The purpose of this thesis is to plug this hole in academia and engage in a thorough
competitive critique of this practice. By analyzing the potential effects on competition from both
an economic theory and legal perspective, this thesis will offer insight as to how the ‘SL
Practice’ should be interpreted by Canadian society. It should be made clear from the start of this
thesis that the SL Practice in discussion concerns a fee being charged for removal of the SL after
the expiration of the service contract. This thesis will not be discussing the effects of the SL

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\(^7\) The growth figure between 2008 and 2009 was 5.4%. Dhanaraj Thakur, “Market Competition and the
distributional consequences of mobile phones in Canada”, (2012) 79 Technological Forecasting and Social Change
223, at 225.
during the contract, as the provider may have a proprietary interest in ensuring that the consumer fulfills their service contract.

This thesis will argue that, in light of the current state of the mobile phone industry in Canada, the SL Practice ought to be viewed to be as anti-competitive. Though inherent ability to reduce consumer choice, provide barriers to entry for competitors, and inhibit market incumbent incentives for innovation, the SL Practice clearly serves to reduce social welfare in Canadian society. With that said however, this thesis will articulate that the Competition Bureau (“CB”) is not empowered under the Competition Act to prevent the SL Practice. Since the SL Practice cannot be seen to substantiality reduce or lesson competition in the market, the legal prohibition under the abuse of joint dominance provision is inapplicable. Therefore, while the SL Practice can be seen as anti-competitive, it cannot be currently classified as an act capable of prohibition. The outline of the thesis is as follows.

Part II provides a description of Canadian wireless phone market history, highlighting the ironic juxtaposition between the consistent initiatives to increase competition, and the resulting anti-competitive market.

Part III thoroughly defines the application of SLs in Canada, and provides a comparison to how other nations treat this practice. Through examining the legal regulation of SLs under Finland and Singapore, it will become obvious that there is not only an international precedent for examining the competitive effects of the SL Practice, but also that nations who prohibit SLs tend to have greater social welfare in the market.
Part IV introduces relevant Canadian legislation on the SL Practice, including current proposals for reform that have been recently tabled by parliament. Focus will be given to describing the incapability of current legislation to adequately deal with this practice.

Part V then engages in the first type of analysis contained in this thesis, that of an economic theory perspective. In particular, the SL Practice will be examined as to whether it creates either an anti-competitive ex-post contract with the consumer, or an anti-competitive switching cost. The former economic analysis will channel the theoretical work conducted by Aghion and Bolton,8 while the latter will rely on the work of Klemperer.9

Part VI builds on theoretical framework of Part V, and subjects the SL Practice to a legal perspective analysis. Examining the SL Practice in light of the abuse of joint dominance provisions of the Competition Act, this paper will examine whether the SL Practice could be consider an anti-competitive act.

This thesis concludes that the best way for Canadian society to regulate the SL Practice is to bring its governance outside the Competition Act. Through placing the SL Practice within the framework of consumer protection legislation, the hurdles of meeting the substantiality of an anti-competitive act could be averted, thus allowing the negative welfare effects of the SL Practice to be removed from society.

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II- BACKGROUND

A. HISTORY OF MOBILE PHONE MARKET IN CANADA

“You have to know the past to understand the present”.10

i. INITIAL DEVELOPMENT OF THE MARKET

The development of Canada’s mobile phone market can be traced all the way back to the establishment of two regional markets in the middle to late 1970’s. In the west, the establishment of a mobile phone service was driven by the need to provide remote phone service for oil exploration. Led by a desire to serve this market, Alberta Government Telephones (“AGT”) started to develop a commercial cellular network in Alberta.11 This cellular network was functioning as of 1982, and provided Canada with its the first regional cellular mobile phone service.12

In the east of Canada, the development of the mobile phone took a very different route. In the middle 1970’s, a company called Challenge Communications (“CC”) started to develop a small subscriber base for a consumer car phone service in Toronto. Utilizing push-to-talk technology, CC was able to connect onto the existing Bell land line network and provide consumers with an efficient type of mobile phone service by 1977.13 With Bell wishing to protect their telecommunications monopoly interest in Ontario, they exercised control over their landlines to halt CC’s operations.14 By implementing a new policy where companies must exclusively utilize Bell hardware to gain access to their landlines, Bell was able to prevent CC

10 Quote attributed to Dr. Carl Sagan.
11 Supra n. 7 at 224.
13 Supra n. 7 at 224.
14 Ibid.
from continuing with this new mobile phone service.\textsuperscript{15} CC immediately brought a motion before the newly instituted telecommunications regulator, the Canadian Radio-television Telecommunications Commission ("CRTC"), who set down the first pro-competitive decision for Canada’s mobile phone industry.\textsuperscript{16} Not believing Bell’s argument that the policy was implemented to protect the integrity of their network, the CRTC found that Bell’s actions caused CC “undue or unreasonable prejudice of disadvantage”.\textsuperscript{17} As a result, CRTC ruled that Bell had to retract their policy forthwith, therefore allowed CC to continue their operations.

A few years after the CRTC decision came out, Bell started work on a cellular network for Ontario. Eventually completed in 1985, this cellular network would serve to make the car mobile phone technology developed by CC effectively obsolete.\textsuperscript{18} While the CRTC ruling stood as a great initial victory for competitive mobile phone service in Ontario, the dynamic nature of mobile phone industry served to quickly overshadow that.

\textbf{ii. LICENSING OF CELLULAR MOBILE PHONE SERVICE}

Foreseeing the importance of having a cellular phone service in Canada, the Canadian government pre-empted the construction of a national service by instituting the first form of regulation. By creating licenses for Canadian operating frequencies, the Department of Communications (now the Department of Industry) began in 1982 to adopt a policy whereby companies wishing to become cellular service providers had to be registered with the government.\textsuperscript{19} These licenses initially took two frequency forms, band ‘A’ and band ‘B’.

\textsuperscript{15} Challenge Communications Ltd. V. Bell Canada, Telecom Decisions CRTC 77-11, 7 October 1977.
\textsuperscript{16} Ibid.
\textsuperscript{17} Ibid.
\textsuperscript{18} Supra n. 12.
\textsuperscript{19} Industry Canada. “A Brief History of Cellular and PCS Licensing”, (October 2004).
A band ‘A’ license allowed the cellular company to operate anywhere in Canada, but there was only one such license created.\textsuperscript{20} This type of license was made available for any Canadian company to apply for, and on December 14, 1983 Cantel was able to secure the band ‘A’ license.\textsuperscript{21} A band ‘B’ license on the other hand only operated within limited regional boundaries. While there were many band ‘B’ licenses created, they could only be applied for by already established local phone companies.\textsuperscript{22} Unsurprisingly AGT was able to secure a band ‘B’ license for Alberta, and Bell was able to secure a band ‘B’ license for Ontario.\textsuperscript{23}

This licensing process naturally resulted in the situation where upon the opening of the Canadian cellular service market in July 1, 1985,\textsuperscript{24} there was only one national cellular phone provider and many regional ones. While the name of the national provider might not be familiar to all Canadians now, it is better known now by its current operating name, Rogers.

\textbf{iii. LICENSING OF PCS MOBILE PHONE SERVICE}

The advent of what Canadians today recognize as modern mobile phone service occurred with the introduction of Personal Communications Services (“PCS”) licensing in 1995. With the increased technology and consumer demand for cellular mobile phones, the Canadian government awarded a new set of provider licenses at an increased band frequency. This brought the mobile phone away from the ‘cellular’ service and into the realm of PCS service.

In order to create a competitive environment for Canadian mobile phone service, the Minister of Industry, John Manley, allocated fifteen PCS licenses to fourteen Canadian

\begin{footnotesize}
\begin{enumerate}
\item Ibid.
\item Ibid.
\item Ibid.
\item Ibid.
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companies in December of 1995.\textsuperscript{25} Fearing a future conglomeration of these licenses into an oligopoly, Manley placed a limit on the amount of licensed frequency that any one corporate entity could own.\textsuperscript{26} This initiative can be seen as an attempt to forestall any future challenges to competition in the market, by pre-empting any attempt to corner the Canadian PCS market. Even though this policy of limiting frequency holdings has remained in place today, the aggregate limit was raised significantly in 1999 to accommodate for more mergers and acquisitions to take place.\textsuperscript{27}

Looking into the details of how the PCS licenses were allocated, it becomes evident that even though fifteen licenses were issued, there were only three national carriers established. Microcell Networks Inc. which better known today as Fido (“Fido”), Clearnet PCS Inc. (“Clearnet”), and Rogers were the only three service providers granted national PCS frequencies, while AGT, Bell, and many others were given provincial licenses.\textsuperscript{28} This allocation reinforced the two-tiered frequency structure of 1983, and added two more national competitors into the mix. With such a moderate expansion of the licensed national service providers from one to three, a natural inference can be drawn that the Canadian government was confident in 1995 that such a three firm market dynamic could facilitate a healthy degree of competition.

\textbf{iv. MERGERS, BUYOUTS, AND OTHER AMALGAMATIONS}

From 1995 to 2008, the Canadian mobile phone market underwent a reorganization of biblical proportions. Starting in 1998, AGT merged with two other regional PCS license holders to form the new mobile service company of Telus. At about the same time that this happened,\textsuperscript{25} \textit{Ibid.}, \textsuperscript{26} \textit{Ibid.}, \textsuperscript{27} Radio Systems Policy 021, Revision to the PCS Spectrum Cap and Timing for Licensing Additional PCS Spectrum (RP-021), See, \textit{Ibid.}, \textsuperscript{28} \textit{Ibid. at Appendix C.}
Bell merged with a few other regional PCS holders to effectively provide enough coverage to be considered a national service provider. This created the situation where as of 1999, there were five large companies operating in Canada’s national market; Telus, Bell, Fido, Clearnet, and Rogers.

This moment can be identified as the golden age for competition within Canadian market, but was short lived. In 2000, Telus was allowed to acquire Clearnet, even though the business combination would surpass the licensed frequency limit of 1999. In order to allow this corporate transaction to proceed from a frequency standpoint, the government allowed Telus to return certain licenses after acquisition of Clearnet. With Telus given the choice of which licenses to return, Telus intuitively abandoned the licenses that were least profitable and desirable. Then in 2004, Rogers was allowed to acquire Fido, effectively making Rogers the largest mobile phone service provider in Canada. Even though the Fido brand still operated in the Canadian market afterwards, its Rogers ownership made it part in parcel with Rogers operations. The result of these two amalgamations was that the competition dynamic of Canadian mobile phone market was returned to same type of position it was in 1995; three national competitors and a number of regional providers.

v. 2008 FREQUENCY AUCTION AND BEYOND

According to a report issued by Industry Canada in 2006, having three national competitors in the Canadian market does not create an adequate level of competition for

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29 Ibid.
30 Ibid.
Canadian mobile phone service.\textsuperscript{32} As a result, the government decided that it was best in 2008 to facilitate an increased competition into the market. This was facilitated by Industry Canada specifically reserving a certain percentage of the new frequency for potential new entrants to the market.\textsuperscript{33} By not allowing market incumbents to swallow up all of the new frequency offered, Industry Canada insured that a new mobile service companies could enter the Canadian market.\textsuperscript{34}

While it was not unprecedented for new companies to be allowed to bid on Canadian frequency, this 2008 auction allowed Globalive Inc. (“Globalive”), a company funded by foreign loans, to enter the Canadian market with its Wind Mobile (“Wind”) brand. The foreign element of Globalive funding was controversial, as Section 7(d) of the Telecommunications Act was strict about only allowing Canadian control and majority ownership in media industries.\textsuperscript{35} Through constructing Globalive’s corporate structure in way that allowed for them to technically meet this Canadian ownership provision, Globalive was able to bid and secure enough frequency to build a fourth national service network in Canada.

Even after successfully paying over 1 billion dollars in the auction however,\textsuperscript{36} Globalive had problems with establishing their national network. In a 2009 CRTC ruling, it was determined that Globalive was not able to participate in the Canadian market because of their foreign loans. In coming to their decision, the CRTC found that Globalive was “in fact”\textsuperscript{37} controlled by foreign ownership, and was therefore barred under Section 7(d) from participating in the mobile service

\textsuperscript{34} Robert Howell, \textit{Canadian Telecommunications Law} (Toronto: Irwin Law Press, 2011), pp. 78
\textsuperscript{35} \textit{Telecommunications Act}, S.C. 1993, c.38, Section 7(d).
\textsuperscript{36} Jesse Brown, “How big wireless companies, the banks, and even the actors’ union are keeping our mobile bills the highest in the world” \textit{Toronto Life} (November 18, 2011).
\textsuperscript{37} Review of Globalive Wireless Management Corp., Telecom Devision CRTC 2009-678 (Oct 29, 2009)
market. The then Minister of Industry, Tony Clement, quickly overturned this decision from the CRTC, therefore allowing Wind to be launched in the Canadian market. Stating that, “our goal has always been greater competition in the telecommunications industry”, Clement went on to determine Globalive’s ownership was in line with Section 7(d). The challenge to Wind’s presence in the Canadian market did not stop there, and soon after the decision from the Minister come out, a case was brought before the courts. Eventually ending in 2012, the Supreme Court of Canada refused to hear an appeal from the decision of the Federal Court of Appeal and therefore allowed Wind to legally operate in Canada.

Wind’s struggle to get launched as a fourth national competitor perfectly illustrates the historic aversion of the market to increasing competition. The market went from one national competitor in 1985, three in 1995, five in 2002, back to three in 2004, and finally to four in 2012. Given the constant projection from the government that increasing competition is a priority, this four firm evolution can be seen as a failure. According to former University of Toronto law professor and current Canadian telecommunication guru, Hudson Janisch, a market the size of Canada should be home to around twenty national competitors by now. Through having limited national frequencies, allowing large acquisitions and mergers, and protecting Canadian ownership, the market can be seen to have evolved in a supra-competitive manner.

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38 Ibid.
39 Industry Canada. “Government of Canada Varies CRTC Decision on Globalive” (December 11, 2009)
41 Ibid.
42 Supra n. 35.
B. CURRENT INDUSTRY ENVIRONMENT

In 2010, it was reported that Canada had around 24 million domestic mobile phone subscribers. This number marginally increased in 2011, and now there are reported to be well over 25 million subscribers. With such a large subscriber base, the mobile phone service market has translated into a very lucrative Canadian industry. In 2009, it was estimated by the CRTC that this was a 16.8 billion dollar a year industry. Figuring in the increased subscribers and recent consumer desire for additional data services for smart phones, it can be safely estimated that this figure has increased. If a person were to only take into account the current subscriber base and the minimum cost for a complete service package (voice, data and text) for example, the annual industry revenue today would be projected to be well over 20 billion. This figure is especially staggering considering that this industry is also able to make garner additional profits from selling of the devices, accessories, or the newly adopted SL Practice.

i. ACTIVE COMPETITORS IN THE MARKET

Within this Canadian industry, there are viewed to be only three large national competitors. Based on a calculation of 2011 statistics from the Canadian Wireless Telecommunications Association (“CWTA”), Bell currently controls 28.8% of the market,
Rogers has 36.3%, and Telus has 28.2%. This 93.3% of the Canadian market is slightly down from the 96% found by other researchers in 2010, but is still astronomical. The remaining 6.7% of the market it is divided up between new entrant Wind, regional providers (“RPs”), and virtual network providers (“VNPs”).

Wind promisingly came onto the national Canadian market through the frequency spectrum auction of 2008. Due to a combination of a limited service area and lack of network support for popular devices such as an iPhone however, it has only been able to establish a very low market following. Even with Wind charging consumers service rates significantly lower than Rogers, Bell, and Telus, Wind was only been able to achieve just over 1% of the market in 2011. While this 1% of the market does technically qualify them as a national competitor, their current lack of market share and susceptibility for amalgamation into one of the big three providers, casts doubt on their position as a long term competitor. With 2014 allowing the possibility of either, Bell, Rogers, or Telus to buy out Wind’s stake in the Canadian market, it is very likely that if Wind is unable to increase its market share soon, this new entrant will enticed to go the way of Fido and Clearnet. According to Hudson Janisch, the likelihood of Wind being bought out by the big three in the future is almost inevitable.

Turning to look at the RPs, it is directly evident from their geographic categorization that they cannot be considered true national competitors. In fact, MTS Mobility only operates in

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48 Supra n. 44.
49 Ibid.
50 Under Section 2 of the conditions of the 2008 AWS -2GHz frequency auction, a license issued to a new entrant cannot be transferred to a company that is not defined as a ‘new entrant’ for a period of 5 years. See, “License Conditions (revised as of November 2008)” Industry Canada Spectrum Management and Telecommunications, Online: Industry Canada <http://www.ic.gc.ca/eic/site/smt-gst-nsf/eng/sf09234.html>
51 In an interview, Hudson Janisch stated that the consolidation of new entrants into the cartel of the Canadian market was 100 percent likely if the foreign investment restrictions weren’t removed. See, supra n. 35.
Manitoba, and Sasktel Mobility only operates in Saskatchewan, and Videotron operates in Quebec and some of the Maritime provinces. Together accounting for 5% of the total Canadian market, these companies serve to provide competition to the large providers, but only within limited markets. With RPs not predicted to ever expand their service nationally, their consideration as a true competitor within the national market is arguably discounted.

The final group of service providers is the VNPs, and together they only make up a fraction of one percent of the Canadian market. VNPs currently provide mobile service to Canadian consumers by latching, either partially or fully, onto the networks and infrastructure of Rogers, Bell, or Telus. In Toronto for example, companies such as Public Mobile (“Public”) and Mobilicity operate effectively in this category. With these VNPs currently only offering service to Canadian consumers in a few cities, their effect on competition in the national market is limited. In the future if these VNPs were to expand their operations across the country, they are potentially a source of homegrown competition for the large providers. With that said however, given that the national frequency license required for such a move is alone valued over 1 billion dollars, the likelihood of these companies making the national move anytime soon is severely doubted.

Before departing this topic, it should be mentioned that some majorly advertised service providers such as Koodo Mobility (“Koodo”) were left absent from discussion as competitors. This was not done out of carelessness, but instead because they are off-shoot providers of the incumbents. Starting with Roger’s acquisition of Fido in 2004, each of the Canadian market

52 “Coverage and Roaming – MTS” MTS, Online: MTS Personal <http://www.mts.ca/mts/personal/wireless/coverage+and+roaming/>
53 “Coverage and Roaming- Sasktel” Sasktel Jaguar USA, Online: Sasktel Wireless <http://www.sasktel.com/>
55 Supra n. 44.
leaders now currently owns or operates at least one other service provider under a different brand name. Bell has Virgin Mobile and Telus has Koodo. While their names might be different from their parent, the affiliate provider’s link removes them from consideration as a true competitor in the Canadian market.

**ii. DISCUSSION OF THE COMPETITIVENESS WITHIN THE MARKET**

Having a triumvirate of firms in a market would normally be acceptable for competition levels in the traditional economics sense. The natural dynamics of inter-firm competition would force these three rival companies into a survival position, where they would have to provide better levels of consumer service for a better price. As identified by Industry Canada’s Telecommunications Policy Review Panel however, this sort of competition has not materialized in the Canadian mobile phone market. 56 Unlike the US where a similar dynamic between a few large providers has resulted in a competitive market, Industry Canada found that this not to be the case in Canada. 57 In highlighting three facts about the current state of Canadian mobile phone market, the argument in favor of Canada’s market being supra-competitive can be understood.

The first fact is the high price Canadian consumers pay for mobile phone services. As mentioned earlier in the introduction, Canada has been readily identified as having one of the highest costs for mobile phone service in the developing world. 58 In comparison to Denmark for example, a medium service user in Canada pays over fives the amount for the same level of service. A Danish consumer pays an annual bill of $91.63, while a Canadian consumer pays $521.99. 59 If there were truly a competition between the three Canadian market participants, it

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56 Supra n. 32 at 1-21.
57 Ibid.
58 Supra n. 1.
59 Peter Nowak, ”The Real Cost of High Prices” CBC News (November 20, 2007).
would be expected that the prices for mobile services would be waned down by a price war. While it is difficult to discover the true profit margins involved in the Canadian mobile phone industry, Professor Srinivasan Keschav estimated that text messages were marked up 4900% in 2009. With such a large margin for Canadian providers to work with, the lack of price wars over texting serves as primary evidence that there might be a lack of real competition in the market.

The second fact is the limited availability of new mobile phone services. In particular, this was identified in the slow rate at which Canadian consumers were recently provided with access to mobile broadband services. The ‘3G’ service is the minimum technological benchmark whereby consumers are able to access mobile broadband from their phone. While in 2012 some Canadian service providers now have ‘4G’ service in major cities, the initial implementation of 3G services across Canada can be viewed to be abysmal. With only 2.5% of Canadian subscribers having mobile broadband access in 2009, Canada ranked second to last in the OECD for providing consumers with access to 3G service. In fact, Chile was the only nation that Canada beat out in the OECD. This limiting diffusion of new services into the Canadian market serves to create a feeling that there is collusion in the market. The dynamics of true competitiveness within a market would logically force providers into a position where they had to constantly improve service offerings to remain competitive. With Canada’s comparable shortcoming in this area, this presents itself as evidence of a failure in proper competition.

The third fact is slow rate at which new technologies and innovation has been provided to the market. Exemplified most notably by late introduction of the iPhone, consumers in the

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61 Supra n. 3.
62 Supra n. 2.
Canadian market are routinely subjected to technological delays. With the iPhone, Canadian provider Rogers was only able to bring the phone to Canada a full two years after it was first launched in America.\(^{63}\) Building on the same sediment expressed above in regard to the slow of diffusion of new services, the failure of the market to innovate and keep up with technology can be viewed as direct evidence of a competition problem in the market.

High prices, a lack of services, and delays in innovation can all be seen as telltale signs of a functioning oligopoly. Even with such glaring evidence in favor of this determination, industry lobby groups and the CRTC have steadily taken the position that this is not the case. Lobby groups have suggested an alternative situation is to blame for the current state of the Canadian mobile service market.\(^{64}\) Citing Canada’s unique geography, social, and political context, lobby groups have proposed that these factors are reason behind the seemingly high prices, lack of services, and a delay in innovation in the Canadian market.\(^{65}\) Looking specifically at the strongest argument put forward, which relates to Canada’s distinct geographic nature, this alternative explanation initially makes some degree of sense. With Canada’s small population diffused over an immense landmass, it only seems logical that mobile service providers would have to expend a great deal of capital to provide vast infrastructure. This would in turn raise the costs to the consumer, both in respect to price and quality of service.

Such a line of reasoning starts to break down however, when it is realized that the Canadian population while dispersed, mainly clumps around major cities. With the Canadian service providers only having to realistically accommodate these highly populated geographical areas, Canada’s distinct geographic nature becomes a less justifiable reason for the state of the

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\(^{63}\) Supra n. 7. at 226

\(^{64}\) Supra n. 59.

\(^{65}\) Supra n. 7. at 226
market. This discounting of this industry rationale is furthered when a juxtaposition with Australia is conducted. In a country that has a very similar geographic dynamic to Canada, Australian consumers enjoy a far better standard of mobile phone service, for a reduced price.\textsuperscript{66} In fact, it was determined that in 2010 for every 100 Australians, there are a recorded 101 mobile phone subscriptions.\textsuperscript{67} This is a far stretch from Canada, where only a recorded 71\% of the inhabitants had subscriptions in 2010.\textsuperscript{68} Even with Australia’s vast unpopulated regions of outback stretching between major cities, Australian service providers were still able bridge this geographic feature and provide inhabitants with affordable rates leading to oversubscription in the market. Understandably this comparison to Australia can be seen to only partially diminish the thrust of the industry’s geographic suggestion. With many unaccounted variables between the two nations, it cannot be said for certain that geography cannot be to blame for the state of the Canadian market. In reality the only thing that can be ascertained from such comparison, is that the geographic argument of the lobby groups is open to doubt. It is therefore not necessary to digress in this thesis into a discussion of each of the lobby group’s arguments, as it can be clearly identified that they are would also open to equal criticisms.

Turning to look at the position of the CRTC, their opinion on the competiveness of the market can be extrapolated from their policy of forbearance. Enshrined under the \textit{Telecommunications Act}, the CRTC has taken the position that it does not interfere in regulating a market if it is, or becomes, workably competitive.\textsuperscript{69} With the CRTC not currently being active in the regulating of the wireless phone market, it can be implied that they believe that there is

\textsuperscript{66} \textit{Ibid.}
\textsuperscript{67} \textit{Supra n. 2.}
\textsuperscript{68} \textit{Ibid.}
\textsuperscript{69} Telecom Directive CRTC 94-19, at 64.
sufficient competition. The exact details and parameters of the statutory basis of CRTC’s forbearance will be discussed in length in Part IV of this thesis.

Understandably the CRTC’s position towards the market being competitive carries a great deal of credible weight. With its role as Canadian’s telecommunications regulator, the CRTC has unparalleled experience in the monitoring of phone markets. The problem with accepting their position wholeheartedly is that the CRTC is structured to protect a wide array of societal interests outside of competition in this market. Since the CRTC regulates Canadian broadcasting along with telecommunications for example, there is logical room for interests from the former to influence the latter. This osmosis of governing interests can be bolstered by the realization that the CRTC has openly committed itself to championing Canadian content in broadcasting. In fact, on the CRTC’s present consumer website, Canadian content has as much coverage as that of the entire Canadian phone and internet market combined.\textsuperscript{70} The reason that Canadian content could be a potential conflict for determining competition in the mobile market, is that two of three large service providers are also broadcasters.\textsuperscript{71} With Rogers and Bell currently having broadcast affiliates who can directly ensure Canadian content is protected, the CRTC has a political bias against regulating their actions in the mobile market. This example along with the earlier discussion of the Globalive’s entry to the market, shows that the CRTC’s wide array of other interests influence their determination on competition. For this reason, the CRTC’s current forbearance in the mobile market should not be identified as a clear sign that the market is competitive.

\textsuperscript{70} “Consumers” CRTC, CRTC Consumers, Online: <http://www.crtc.gc.ca/eng/consmr.htm/>

\textsuperscript{71} When the CRTC adopted forbearance in the market in 1994, only one of the large providers, Rogers, was a broadcaster. Bell became a broadcaster a few years later.
Through exploring the details of the current Canadian mobile phone market, it becomes apparent that the historic intention to create a truly competitive market might not have come to fruition. While the monopoly of Bell within the telecommunications industry was broken during the end of the 20th century, the recent events and state of the market suggest that it may have been replaced by an oligopoly. Even though there are relatable arguments presented in opposition of such a realization, the facts and descriptions of historical tendencies strongly indicate that the Canadian market operates at a supra-competitive level.
III. EXPLANATION OF SOFTWARE LOCKING

A. DEFINITION OF SOFTWARE LOCKING

A SL is an artificial technological barrier placed on a phone by the service provider prior to the point of sale. This technological barrier was specifically designed to ensure that a consumer is unable to utilize their newly acquired phone on another provider’s network. This prevention extends past domestic borders, and even applies internationally. In this way the provider is viewed to not only ensure that the consumer is barred from switching to a direct competitor, but also that they are tied to paying roaming rates when using devices abroad.\textsuperscript{72}

According to website of one of dominant firms in the Canadian market however, the lock is placed on the phone for different reasons. Identified in Bell’s current website, the SL is placed on the phone to: protect it from being accidently reprogramed, having important network functions changed, and also ensure Bell’s investments in intellectual property (“IP”) and protected.\textsuperscript{73} In looking into the details of these claimed rationales, it quickly becomes evident that such claims are misleading in nature.

Starting with the first two rationales, it is difficult to understand why ensuring protection for the operation of the phone would restrict its use on another provider’s network. Even though the SL does serve to provide a method of ensuring that the phone’s software is not technologically tampered with, there are many other ways of accomplishing this goal absent without restricting the phone’s ability to work on different network. For example, having a piece of software that prevents tampering but still allows access for multiple networks would be an obvious solution. Furthermore, looking into the reality that mobile phone providers in Singapore are able to

\textsuperscript{72} This is in reference to the consumer being unable to use a local SIM card when abroad.
\textsuperscript{73} “My Mobile Phone is Locked” Bell Support, Online: Bell Canada
<http://www.support.bell.ca/mobility/smartphones_and_mobile_internet/My_mobile_phone_is_locked/>
successfully protect phones tampering without using a SL, Bell’s rationale for using the SL can be viewed to be incomplete.

Turning to Bell’s final claim, it is unsure how and why the SL can be used to protect Bell’s IP. Realistically, Bell could only have an IP interest in the additional copyrighted software that they added to the device before sale. While Bell is free to protection such a proprietary interest, in light of current state of Canadian law it is illogical for Bell to do so through a SL. With Canadian law allowing the SL to be removed by the consumer, Bell’s attempt to protect this through implementing a SL is arguably ineffective.74 For if Bell actually wished to protect its copyrights it is only logical that they would have instead implemented a technological protection measure that could withstand legal removal. The only way of seeing this protection of IP rights as effective, is theorizing that Bell designed the unlocking fee as a manner of charging consumers for using their IP rights. While this suggestion is plausible, the reality is design of the SL focuses on preventing multiple networks access not protecting IP.

The mere fact that Canadian consumers primarily remove the SL out of a desire to utilize their phone on another network, illustrates that Bell’s projected rationales for implementation are almost completely fictitious. It is clearly evident from a practical standpoint that the real reason that a SL is placed on a phone is to prevent the consumer from utilizing that phone on a rival’s network.

B. SOFTWARE LOCKING AS A SECOND TECHNOLOGICAL BARRIER

As previously noted, a SL provides the consumer with technological barrier in switching providers on their phone. In Canada however, the effect of this artificial technological barrier is compounded by effect the natural one that occurs due to frequency variation. Currently,

Canadian service providers mainly utilize two different service frequencies for their networks, GSM and CDMA. This frequency dichotomy forces phone manufacturers to program new phones to operate either on GSM, or CDMA network. The result of this divergence in frequency is that a phone programmed for the GSM network will not always work on the CDMA network, and visa-versa. This can thus be seen as a natural technological barrier.

Prior to 2009, Rogers was the only provider on the GSM frequency. More recently, Bell and Telus expanded their network to also utilize GSM. This has left a situation in Canada where all three large service providers now share the same network frequency, whereas other smaller providers like Wind are left on CDMA. With some mobile phones not being able to bridge the gap between GSM and CDMA, the additional technological barrier of the SL leaves Canadians in a more subjugated state. Due to these two technological barriers, Canadian consumers are severely limited as to which service providers they can use on the phone that they own.

C. PROCESS TO REMOVE THE SOFTWARE LOCK

With the lock being placed on the mobile phone through the addition of software, the process for removing it can be rather simple. Either by entering a password onto the device or downloading a new operating system, a phone can have its SL removed in a matter of minutes. For the consumer wishing to have their phone unlocked in Canada today, there are currently three options.

The first option is for the consumer to pay the service provider who installed the SL. With the service provider being the party that installed the SL, they are able to remove the lock

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75 Peter Nowak, "NDP Bill Aims to Unlock Cell Phones" CBC News (June 17, 2010).
76 Ibid.
77 According to esteemed technology professor, Dr. Michael Geist, the process takes “about three minutes”. See, Matthew Braga, “Why I picked an unlocked phone” The Global and Mail (September 2, 2011), online: <http://www.theglobeandmail.com/technology/mobile-technology/why-i-picked-an-unlocked-phone/>
through the intended technological process. This allows for the SL to be effectively removed, without any damage or disruption occurring in operation of the phone.

The second option is for the consumer to attempt to can do-it-themselves by looking for online help. This process while cost effective can be severely dangerous to the health of the device.\(^{78}\) As with any other do-it-yourself project, there is an inherent risk that a simple mistake could severely damage the phone. Furthermore, the online help usually consists of methods of hacking or replacing the software,\(^ {79}\) processes which were not natural to operation of the phone.

The final option is for the consumer to pay a third party company to unlock the phone. These unlocking businesses have sprung up in obscure locations in major cities, providing the consumer with an inexpensive service in which either the operating system on the phone is replaced, or SL code is hacked.\(^ {80}\) With these businesses being unlicensed and unregulated in the nature, their qualifications and expertise in providing consumers with the best quality of unlocking services should be doubted. As with the do-it-themselves option, these businesses remove the SL through unnatural means, thus providing room for possible damage of the phone to occur.

Clearly evident from the above discussion of possible options to remove the SL, there is only one foolproof consumer choice. With the service provider being the sole option that can remove the lock through the natural process, they present themselves as the only truly reliable method of removing the SL. Even though it is completely legal in Canada for consumers to have phones unlocked in any manner they wish,\(^ {81}\) paying the service provider provides the only guarantee that the phone will come out unscathed. This realization was articulated by the

\(^{78}\) *Supra* n. 75.

\(^{79}\) “How to Unlock a Cell Phone or Smartphone” HowStuffWorks, Online: HowStuffWorks Electronics <http://www.electronics.howstuffworks.com/how-to-tech/how-to-unlock-phone.htm />

\(^{80}\) *Supra* n. 74.

\(^{81}\) *Ibid.*
Commissioner of Complaints for Telecommunication Services, Howard Marker, who stated that people take their chances when they get their phone unlocked in a place where it was not designed.82

D. DISCUSSION OF SOFTWARE LOCKING IN THE CANADIAN MARKET

With no current legal regulation on service providers implementing SLs in Canada, the industry has adopted its own policy. The result is that while not every mobile phone currently sold in Canada comes with a SL, all mobile phone currently sold through Canadian service providers do.83

Even through consumers have a choice to purchase an unlocked phone from an alternate source, they are enticed to purchase locked phones from a service provider through the large initial discounts offered. This true extent of this discount can identified most clearly in relation to the new iPhone 4S 16GB. If a consumer wishes to purchase the unlocked iPhone directly from Apple, the cost would be $649.84 If however, the consumer bought the same iPhone with a SL from Rogers in a three year contract, the cost would only be $159.85 With an initial savings of $490, there is really no real decision for the average consumer to make. It is logically understood in the industry that most of the discount offered in the purchase of locked phones relates to maintain the length of the consumer contract commitment.86 However, without the SL being automatically removed after the expiration of the contract, the consumer is effectively unable to separate the yoke of SL from the benefits of signing a long term contract. Looking into articles written about the state of the American consumer market, it is evident that consumers are drawn

82 Ibid.
83 Ibid.
84 “iPhone 4S- Get 4S with 16GB, 32GB, or 64GB- Apple Store (Canada)” Apple Canada, Online: Apple <http://www.store.apple.com/ca/browse/home/shop_iphone/family/iphone/iphone4S/>
85 “iPhone 4S 16GB White – Rogers” Rogers Wireless, Online: Rogers Communications <http://www.rogers.com/web/link/>
86 Supra n. 74.
away from purchasing unlocked phones due to a natural unwillingness to pay more upfront. In 2009 for example, it was reported that only 5% of mobile phones sold in America were unlocked. With statistics about the Canadian consumer market currently unavailable, it can be assumed that a similar dynamic is currently present in Canada.

As the manner in which Canadian providers remove them differs greatly, these policies from the main providers will be explained. Through conducting this exploration, the questionable SL Practice will be explained.

i. USE BY DOMINANT FIRMS

Prior to the year 2009 neither Rogers, Bell, or Telus offered services to remove the SL from the phones they sold. This resulted in a situation where consumers either had to partake in unlicensed alterations to their devices when switching providers, or simply abandon their phone altogether.

This all changed in 2009, when Bell announced that it would start unlocking their devices for a set fee. If a Bell consumer had a Bell mobile phone on an active account for 30 days, committed to honouring the rest of their service contract, and paid Bell a fee of $75, they could have the SL removed. This policy has been identified to have remained intact today, however it should be mentioned that it is not currently officially advertised by the company on their website. If a consumer were to enter the search terms “how to unlock my phone” into the Bell website search engine, there is no mention of this policy or unlocking procedure anywhere.

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87 Marguerite Reardon, “Unlocking the unlocked cell phone market” CNET News (July 2 2009), online: <http://news.cnet.com/8301-1035_3-10277723-94.html>
88 Ibid.
89 Michael Bettiol, “Bell will unlock clients HSPA phones after 30 days” BGR (October 10, 2009), online: <http://www.bgr.com/2009/10/10/bell-will-unlock-clients-hspa-after-30-days/>
90 Ibid.
91 Supra n. 74.
The next dominant service provider to charge a fee to remove the SL from consumer phones was Rogers. On December 15, 2010, Rogers put in place their own unlocking policy. Under this new policy, a customer who has either completed the term of their Rogers service contract, or has purchased the Rogers phone for an unsubsidized cost, can pay Rogers a fee of $50 to have their Rogers phone unlocked. As with Bell, this current policy is not readily advertised by Rogers, and thus only allows knowledgeable consumers the ability to exercise this policy.

Telus finally followed the other two dominant firms in the Canadian market by instituting an unlocking policy in February 8, 2011. After implementing this new policy, a Telus customer is now able to have their SL removed if, 90 days of service contract have passed, they commit to fulfil their service contract with Telus, and they pay Telus a $50 fee. Unlike the other two dominant firms in the Canadian market, Telus readily advertising their unlocking services to its consumers via its website.

After viewing the policies of the three dominant firms in the Canadian mobile service market, it is clear to understand that they all charge the consumer a fee for removing the SL even after the service contract has expired. In order to contextualize the gravity of this SL Practice on the Canadian economy, it should be noted that if every current consumer under contract with these providers agrees to pay the unlocking fee after their contract expired, it would cost a total

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92 Ibid.
93 Emily Mattieu, “Rogers will unlock your phone for a price” Moneyville (December 16, 2010), online: <http://www.moneyville.ca/article/908379--rogers-will-unlock-your-phone-for-a-price/> 
94 Ibid.
95 “Under Pressure, Telus Unlocked Phones Tuesday”, NDP Media News Release (February 17, 2011), online: <http://www.karinahunter.com/?p=23863>
96 Ibid.
98 As an aside it should be noted that as of 2012, neither of these companies currently offers their unlocking services in relation to iPhone devices they have sold. See, supra n. 95.
of over 1.1 billion dollars. While this figure is understandably only a fraction of the cumulative cost of all outstanding mobile service contracts in Canada, it is still a staggering amount.

**ii. USE BY THE NEW ENTRANT TO THE MARKET**

When Wind came onto the Canadian market, it took a very different approach to removing SLs. Instead of charging a fee for the removing the SL, Wind removes the SL gratis after a consumer has fulfilled 3 months of service.100

Their current policy towards removing the SL thus illustrates that it is not only possible, but also feasible for larger Canadian providers to adopt a similar service for removing the SL after the expiration of the contract. Furthermore, Wind’s current policy is also viewed to breathe further contradiction into Bell’s assertions as to the rationale for its SL implementation. With Wind effectively allowing all consumers to operate their devices without a SL after three months, it is evident that the both the safety of the phones, as well as the intellectual property of a provider can both be protected in a manner that does not require a SL.

**E. SOFTWARE LOCKING AROUND THE WORLD**

While Canada currently retreats from regulating how service providers utilize SLs, not every country around the world takes the same position. In fact, some nations have actively gone past regulation and effectively banned service providers from implementing a SL on a consumer phone. Through looking now into the position of one mobile service markets limits SLs, and another market that bans it altogether, it will become evident that there is already international precedent for Canada to alter its current allowance of the SL Practice.

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99 Figure based on multiplying the cost of the unlocking fee of each provider by the number of subscribers identified by the CWTA in 2011 to be ‘postpaid’. Even though it can be conceded that not every postpaid individual has a locked phone, this figure can be seen to be accurate as it does not take into account those Canadians under ‘prepaid’ service.

100 Supra n. 77.
i. FINLAND

Finland’s current position on SLs can be found within the ‘tie-in sales’ restrictions of their Communications Markets Act. Logically considering the provider’s sale of their locked phone to be tied to their service agreement, Section 70 of the Finnish legislation allows service providers to implement SLs on their device during the term of a service contract. After the service contract expires however, the service provider is mandated under Section 70(5) to remove the SL within two weeks. Under this legislation the removal of the SL must be removed without charge, with the only condition being that the consumer must notify the service provider of their wish to have the SL removed.

This form of this domestic legislation can be directly identified to prohibit the exercise of a Finnish SL Practice, similar to that which currently occurs in Canada. With Finland allowing SLs but facilitating their free and timely removal after the expiration of the contract, it can be easily inferred that the Finnish government became concerned about negative welfare effects associated with the SL Practice. Even though the particular wording of the statute does not address what those welfare effects were, the fact that it is dealt with under the provisions on ‘tie-in sales’ leads one to assume that it involved a reduction of market competition.

Through turning now to look at the current state of the Finnish mobile service market, it becomes obvious that Finland is home to a super-competitive market. To start with the cost of service, Finland’s monthly minimum price for a mobile phone package including voice, text, and data, was $40.10 in 2010. This is a 41% reduction in cost in comparison to Canada. Turning

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101 Communications Markets Act 363/2011.
102 Ibid., Section 70
103 Ibid., Section 70(5)
104 Ibid.
105 Supra n. 4.
106 Ibid.
then to market penetration, as 2010 it was recorded that a whopping 156% of the Finnish population had mobile phone subscriptions.107 When juxtaposed to Canada’s 71%, this number becomes particularly impressive.108

After exploring the mobile service market of Finland, it is obvious that there is a high level of competition. Even though any comparison between countries is inherently difficult, the current geographic situations of Finland and Canada are ripe for some similarity to be drawn. While Finland is a mere fraction of Canada’s size, the dispersion of the population between city and rural areas provides a partial backdrop. Like Canada, the majority of Finland’s population lives in large cities, with the minority being in highly remote areas. This similarity leads to an understanding that these countries share a high cost for infrastructure, relative in scale to each other.

ii. SINGAPORE

The first country to effectively ban the use of SLs in mobile phones was Singapore, who accomplished this feat in 1997. In a seminal ruling from the Telecommunications Authority of Singapore (“TAS”), it was determined that a SL constituted a breach of the Singaporean frequency license that mobile service providers operated under.109 The reason that TAS gave for their finding, was that the SL constituted a form of anti-competitive behavior, a prohibited act under Condition 23(1) of the frequency license.110 Even though the regulatory authority for the

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107 Supra n. 2.
108 Ibid.
109 Official name of the license is: Public Cellular Mobile Telephone Service License
111 Ibid.
telecommunications industry in Singapore has since shifted to the Infocomm Development Authority (“IDA”),112 the nation’s stance on banning SLs has been maintained.113

In turning to now look at the current state of the Singaporean market, it quickly realized that Singapore operates in a super-competitive manner. As of 2010, Singapore had a mobile penetration rate of 145%.114 While this number is slightly lower than Finland’s comparable value, it is still double that which Canada was reported to have in the same year. With Singapore not being in the OECD, there is unfortunately no official 2010 statistic available on their minimum cost of a service package. With that said, there can still be a price comparison drawn between Canada and Singapore. Through looking into the current prices offered by their largest providers in the respective countries, insight is provided as to the grave differences in competition contained. In Singapore the largest service provider is Singtel, who currently offers service packages which include voice, text and data for 39.90 Singaporean dollars.115 Converted to Canadian currency on May 23, 2012, that is $32.05.116 The largest service provider in Canada, Rogers, currently advertises service packages on their website starting at $42.13.117 Along with the 31% price discount Singtel’s service package offers, it also contains a data allowance that is 120 times higher than Rogers and the free features of voicemail and Caller ID.118 This substantial reduction in price combined with the inclusion of more features, provides primary evidence that Singaporean service market operates in a more competitive atmosphere than Canada.

113 Supra n. 74.
114 Supra n. 2.
115 “Price Plans” Singtel, Online: Singtel Personal Communications <http://info.singtel.com/personal/communication/mobile/postpaid-plans/price-plans>
116 Conversion based on exchange rate of 1 SGD = 0.80 CAD.
118 “Price Plans” Singtel, Online: Singtel Personal Communications <http://info.singtel.com/personal/communication/mobile/postpaid-plans/price-plans>
Understandably, a direct comparison between the markets of Singapore and Canada is difficult given the very different geographic and social contexts. Unlike Canada that has a small population spread over a large landmass for example, Singapore is a densely populated city-state. These divergences between the nations force any comparison to be subjected to a plethora of variables, which would blur any direct impact that could be solely attributed to the banning of SLs. Even in light of this reality however, there is still some room for Canada to gain insight from the Singaporean experience. With Singaporean officials coming to an early determination on competitive dangers of SLs, Canada has been shown that SLs and the SL Practice might have a natural pre-disposition against competition in the market. While such information can only provide a reference, it is useful in placing a natural presumption on the competitive problems of the SL Practice.
IV. RELEVANT LEGISLATION

As of today, there are two pieces of federal legislation which can govern the conduct of Canadian mobile phone service industry. Through exploring the details and the application of the *Telecommunications Act* and the *Competition Act* to the mobile industry, it will become evident why neither has been applied to curtail the current SL Practice.

A. TELECOMMUNICATIONS ACT

Primary governance on the actions of Canada’s mobile phone companies is currently found within the provisions of the *Telecommunications Act*. Enacted in 1993, the *Telecommunications Act* replaced the archaic *Railroad Act* as the governing legislation for regulating Canada’s telecommunications industry. Maintaining the same enforcement structure as the *Railroad Act*, regulatory compliance under the *Telecommunications Act* is governed by the administrative decisions of CRTC. In one of the first decisions that the CRTC took concerning the *Telecommunications Act*, they decided that mobile phone service was part of the telecommunications industry and therefore subject to their authority. Since this decision was taken in 1994, the CRTC has placed the modern regulation of Canadian mobile service providers squarely on their shoulders.

According to directions given to the CRTC by the Governor in Counsel in 2006, Canada’s telecommunications policy focuses primarily on allowing competitive forces to govern the market. This sediment cements the earlier articulation of the Canada’s objectives found in

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121 *Supra* n. 34 at 63.
Section 7(c) of the *Telecommunications Act*, where Canada’s telecommunications policy is integral to enhance efficiency and competitiveness.\textsuperscript{122}

Currently within the provisions of the *Telecommunications Act*, there is no direct mention of SLs or how they should be applied. Instead, the Act leaves room for the CRTC to regulate new innovations and adopted practices such as SLs under administrative order. Under Section 32(g), the CRTC is given the general power to make an administrative order curtailing the way in which telecommunications services are provided.\textsuperscript{123} The Act therefore effectively delegates any legal consideration of new technology such as SLs to of CRTC. Guided by Section 47, the CRTC is directed to exercise their administrative powers under Section 32(g) to implement Canada’s telecommunications policy. With enhanced efficiency and competition already mentioned as being an objective of Canada’s telecommunications policy, the CRTC has the legal ability to prohibit the SL Practice if it can be determined to be anti-competitive.

In practice however, the CRTC has shown that it would have a problem exercising Section 32(g) against the SL Practice. Under their policy of regulatory forbearance described in Part II of this thesis, the CRTC has taken the position that if the mobile phone market is sufficiently competitive, they will not intervene in the market.\textsuperscript{124} Generally this policy would make logical sense as the CRTC is leaving the industry to natural market forces. The problem here however, is that because the CRTC currently considers the mobile phone market competitive, it is unlikely they would intervene with the SL Practice regardless of its anti-competitive effect. With no realistic possibility that the CRTC would alter their position of

\textsuperscript{122} *Supra* n. 119, Section 7(c)
\textsuperscript{123} *Ibid.*, Section 32(g)
\textsuperscript{124} *Supra* n. 34 at 51.
forbearance in the near future, it can be viewed that the SL Practice cannot be regulated by the Act.

**B. COMPETITION ACT**

The other piece of federal legislation which curtails the actions of Canada’s mobile phone industry is the *Competition Act*. This Act is implemented and regulated by the administrative decisions of the CB, and has general applicability on all Canadian industries. Described by the former Director of the CB, the Act “pertains to all industries: from transportation, to the manufacturer of shoes, to telecommunications”.  

While the CB has the official authority to regulate the actions of mobile phone industry, since the implementation of the Telecommunications Act, the CB has not fully exercised their role. Starting in 1994, the CB has taken the position that it would share the responsibilities of policing the competitiveness of the telecommunications industry with the CRTC. This delegation to the CRTC was first reflected in a speech given by Director of the CB, and has since been enshrined within its official guidelines. Believing that the CRTC is better able to monitor certain dynamic aspects of the industry, the CB has allowed the CRTC to have exclusive jurisdiction over certain areas of the mobile phone industry. One of the areas of the industry that the CB has conceded jurisdiction is concerning the interconnection of services. With a SL concerning a barrier on the interconnection of services, it is therefore viewed that the

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125 At the time of the speech the Competition Bureau was called the Bureau of Competition Policy. See, George Addy, *The Competition Act & the Canadian telecommunications industry: address* (Toronto: Industry Canada, 1994).
128 *Supra* n. 125 at 5.
129 *Supra* n. 34 at 68.
CB has effectively delegated the SL Practice to the CRTC. Understandably such delegation is only an internal policy and not a binding legal principle, but the reality is that such policies motivate the CB into absconding from an inspection the effects of the SL Practice. As will be reflected in the analysis Part VI of this paper, even if the CB retracted their delegation to the CRTC and analyzed the SL Practice, the current abuse of joint dominance provisions under the Act are unable to constrain the SL Practice in any manner.

C. PROPOSALS FOR LEGAL REGULATION OF SOFTWARE LOCKING

As illustrated from viewing the current position Canadian legislation, any prospective regulation of the SLs gets the legal runaround. The CB has it as a policy to leave the SLs to CRTC, who has in turn adopted a position to not intervene in the mobile phone market. With politicians becoming aware of the ineffectiveness of curtailing SLs through current means, some brave individuals have sought to circumvent this situation by drafting tailored legislation. In looking over the details of the current federal and provision proposals, it will become evident that while there is a real effort afoot in Canada to bring SLs under proper regulation, any legal restriction on the SL Practice is seen as a distant prospect.

i. FEDERAL

The grandfather of all proposed legislation on the regulation of SLs is Member of Parliament (“MP”) Bruce Hyer. In 2010 MP Hyer introduced Bill C-560, which if passed would regulate the use of SLs by Canadian service providers in three ways. First, providers would have to inform the consumer about the SL before they sell them a locked phone.130 Second, if the provider sells the consumer a discounted locked phone under a service contract, the provider

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130 Bill C-560: Cell Phone Freedom Act, 2010, Section 3.
would have to remove the SL upon request and free of charge after the service contract expires.\textsuperscript{131} Third, if the provider sells a locked phone to a consumer at full price or under a service contract of less than 6 months, the provider would have to remove the SL upon request and free of charge.\textsuperscript{132}

These three provisions regulating SLs create a very similar legal regulation to that of Finland. This concurrence to their legislation shows that this Bill is ultimately aimed at regulating SLs by removing the ability of Canadian providers to utilize the SL Practice. Unfortunately, the Bill did not receive enough political support to warrant the prospect for future adoption into law. Reasons attributable to this failure can be viewed as two fold. First, MP Hyer is a member of the New Democratic Party (“NPD”). With the NDP only having a minority of the seats in the House of Commons, this Bill was introduced as a Private Members Bill. This intrinsically made it politically unpopular for ascension into law, as the Bill required a great number of MPs to cross party lines, a reality that never materialized. Second, the Bill challenged the 1.1 billion dollar profit potential of a politically connected industry. With large Canadian service providers Bell and Rogers having corporate affiliates in the media industry,\textsuperscript{133} it is only reasonable to think that politicians seeking re-election would be adverse to supporting legislation which hurt the conglomerates that cover their re-election campaigns.

Bill C-560 expired in parliament in 2011, but was reintroduced in 2012 as Bill C-343. Bill C-343 is currently before the Canadian parliament at the time this thesis was written, but with the same political climate still present, the likelihood of it ascending into law in the near future is highly doubted.

\textsuperscript{131} Ibid., Section 4.
\textsuperscript{132} Ibid., Section 5.
\textsuperscript{133} For example Rogers Wireless’s parent company Rogers Communications owns significant television and broadcast holdings in Canada.
ii. PROVINCIAL

In the last two years, there have been many provincial attempts to pass legislation on curtailing the practices of Canada’s mobile phone industry. Drafted as consumer protection measures, some of these proposals have even found their way into law.\textsuperscript{134} With such a provincial movement afoot to regulate this industry, it is troubling to realize that there have only been three initiatives aimed at SLs.

The first provincial initiative was in 2011, with Manitoba’s Bill 35.\textsuperscript{135} Eventually passed into law earlier this year, Bill 35 mandated that Manitoba service providers must inform consumers “whether the phone is locked” before the sale of mobile phones.\textsuperscript{136} By making the provider disclose to the consumer that there is a SL, Manitoba law created the first limit on how providers utilize SLs. While on one hand this can only be seen as a minor legal development as it only mandated disclosure, on the other hand it can be heralded as a great achievement due to its trailblazing. Prior to Bill 35 being drafted, there was no acknowledgment anywhere in Canadian law that SLs were an industry practice capable of being regulated. With Bill 35 now being passed into law, Manitoba has set the Canadian precedent that the SL can in fact be regulated in its application by the mobile phone industry. This legislation has therefore provided the necessary catalyst for others, whether governmental or regulatory, to also intervene on the use of SLs and the SL Practice.

The second provincial initiative also in 2011, was Ontario’s Bill 5.\textsuperscript{137} Introduced by Member of Provincial Parliament (“MPP”) David Orazietti, this Bill is a reintroduction of Bill

\textsuperscript{134} Eg. Bill 60 (Quebec): An Act To Amend the Consumer Protection Act, 2009.
\textsuperscript{135} Bill 35 (Manitoba): The Consumer Protection Amendment Act (Cell Phone Contracts), 2011.
\textsuperscript{136} Ibid., Section 185(1)(L)(ii).
\textsuperscript{137} Bill 5 (Ontario): Wireless Phone, Smart Phone and Data Service Transparency Act, 2011.
133 that expired in June of 2011 after passed First and Second Reading.\textsuperscript{138} Compared to Manitoba’s Bill 35, Ontario’s Bill 5 goes much further in its attempt to regulate the use of SLs. Under Section 3(3), Bill 5 mandates that providers must remove the SL from their devices upon request if, the service contract with a consumer expires, or the consumer pays full price for the phone.\textsuperscript{139} By placing a legal obligation on providers to remove the SL, Section 3(3) of Bill 5 can be seen as an attempt to remove the SL Practice from Ontario. With Bill 5 having passed two readings in the provincial parliament and now referred to the Standing Committee, Orazietti is confident that Bill 5 might become legislation in the near future.\textsuperscript{140}

Even though Bill 5 has had successful readings, there are viewed to two major obstacles in its ascension into law. The first is based on the current political dynamic of the Ontario parliament. Even though Orazietti’s political party, the Liberal Party (“Liberals”), are currently in power, they do not operate with a majority of the seats. With the Liberals unable to pass Bill 5 through parliament with a majority on their own accord, the Bill needs for MPPs to cross party lines to vote it through. Given the fate and political turmoil discussed around MP Hyer’s Bill C-343, this might prove to be an insurmountable task for the Bill. The second obstacle is based on the recent drafting of Bill 82 in May 2012.\textsuperscript{141} With Bill 82 also coming from the Liberals, there is the almost certain possibility that Bill 82 might supersede Bill 5 as the Liberals dominant mobile phone legislation for 2012. In moving to discuss the details of Bill 82 below, it will become evident that if it does pass, it would be step backwards in term of what could have been achieved under Bill 5.

\textsuperscript{138} \textit{Supra} n.46.
\textsuperscript{139} \textit{Supra} n. 137, Section 3(3).
\textsuperscript{140} Statement from an interview conducted with David Orazietti on February 28, 2012.
The third provincial initiative to regulate SLs was Ontario’s Bill 82, and was very recently introduced by the Minister of Consumer Services, MPP Margaret Best.\textsuperscript{142} Similar in nature to Manitoba’s legislation, Bill 82 serves to only mandate that service providers inform consumers about the SL on their device before sale.\textsuperscript{143} Unlike Bill 5 therefore, Bill 80 does not in any way attempt to modify how or when providers remove the SL from phones. As such, it does not regulate the current SL Practice. With Best having a Ministerial position within the Liberals, it is more than likely that Bill 82 will usurp Bill 5 and become the Liberals dominant legislation on the matter. In light of the previous support that Bill 5 had in its parliamentary readings, it is a questionable why a Liberal Minister would present Bill 82, a Bill that absconds from a direct prohibition of the SL Practice. Without partaking in such political speculation in this thesis, the reality is that Bill 82 currently stands as the front running Ontario legislation on SLs. While the passing of Bill 82 would be still a step forward for Canada regulating SLs, it is only a very meager one as it neglects to regulate the SL Practice.

\textsuperscript{142} Ibid.
\textsuperscript{143} Ibid., Section 10(1)(12)
V. SOFTWARE LOCKING AND ECONOMIC THEORY

After this thesis situating the SL Practice within the context of the Canadian market, a look will now be done into the effects that the SL Practice has on competition. While the TAS in Singapore was able to provide a carte blanche ruling of its anti-competitiveness in 1997, this thesis will come to a similar conclusion through using an economic critique of SL Practice. Through subjecting the SL Practice to two different forms of analysis, this thesis will explain how its current application in the Canadian market can be as anti-competitive.

A. SOFTWARE LOCKING PRACTICE AS AN EX-POST CONTRACT

The first approach taken towards the SL Practice will be viewing it in terms of being an *ex-post* contract with the consumer. With the consumer unable to use their locked phone on another service provider’s network after their contract, the SL can be seen to extend to the time they are bound to the original provider. Even though the Canadian consumer can escape this extended term by either paying to unlock their phone or buying a new one, there is a direct cost associated with both. Through first explaining and then channeling the economics work of Aghion and Bolton,¹⁴⁴ this thesis will explain how the SL Practice can be seen to create an anti-competitive *ex-post* contract with the consumer.

i. THEORETICAL BASIS

While traditional economists such as Richard Posner have undertaken the belief that a consumer entering into a long contract with a supplier is pro-competitive,¹⁴⁵ Aghion and Bolton have suggested an alternative view. Identifying that long-term contracts naturally serve to

¹⁴⁴ *Supra* n. 8.
prevent new entrants from entering into the market, Aghion and Bolton argue that these contracts can actually serve to reduce social welfare.\textsuperscript{146} Their rationale for coming to this determination is logical. New entrants inherently require a minimum number of available consumers to be able to survive. With long-term contracts limiting the number of consumers that are free at any one given time, new entrants are either marginalized or persuaded against entering the market. Aghion and Bolton view this reduction and impairment of new entrants as a welfare detriment, because this reality naturally lowers the level of competition.

In order for them to truly identify this situation as a welfare detriment, Aghion and Bolton articulate that contracting consumers must be unable to act collectively. The reason for this is that Aghion and Bolton agree with Posner’s earlier logic around consumer decisions. As Posner rationalized, consumers only voluntarily enter into a long-term contract if it is beneficial.\textsuperscript{147} Through Aghion and Bolton utilizing Nash’s prisoner’s dilemma, they are able to show that when consumers can only act individually their valuation of benefits are limited. Through a consumer understanding that their personal choice not to sign is insufficient to exact a change in the market, they are likely to agree to a personally advantageous but collectively damaging long-term contract.\textsuperscript{148} To quote economist Steven Salop, “(contracts) are valued by each buyer individually even while they create an external cost to all other buyers”.\textsuperscript{149} So even though Posner argued that consumers are naturally unlikely to participate in initiative which strengthens or perpetuates a monopoly,\textsuperscript{150} Aghion and Bolton showed that if there is a collective action problem, consumers may voluntarily participate in such an initiative.

\textsuperscript{146} \textit{Supra} n. 8.
\textsuperscript{147} \textit{Supra} n. 145.
\textsuperscript{148} \textit{Supra} n. 8. at 398.
\textsuperscript{149} \textit{Ibid}.
\textsuperscript{150} \textit{Supra} n. 145 at 203.
ii. ANALYSIS

After this thesis explaining how a long-term contract can be theoretically anti-competitive, the SL Practice’s *ex-post* contract must be analyzed to see if it qualifies within those parameters. While Aghion and Bolton did not directly mention *ex-post* contracts in their analysis, the nature of *ex-post* contracts serves to create an understanding that they would also be applicable. Through *ex-post* contracts serving to extend the effective time a consumer is exclusively bound to a provider, they can be seen to potentially create virtual long-term exclusive contracts.

The starting point of analysis will be rationalizing whether the SL Practice can be truly considered an *ex-post* contract. Even though it is a given that the SL Practice creates a tie between the provider and the future use of the phone, the establishment of an *ex-post* contract requires that there is evidence that a consumer will use the locked phone after the formal contract expires. This is because if a consumer simply abandons the phone after the expiration of their contract, the SL does not extend their time with the provider. Thus, an *ex-post* contract cannot be said to exist. Unfortunately, there are no official statistics on to how long the average Canadian consumer uses their mobile phones. Evidence presented before a hearing of the United States Copyright Office suggests that the average American consumer gets a new phone every 12 months. \(^{151}\) With Canada having a similar consumer dynamic to America, albeit maybe little more frugal, it can be safely to assumed that a similar consumer timeframe can be used for Canadians. With Canadian service providers having their minimum contract set at 12 months, \(^{152}\) it logically viewed that the average Canadian consumer would not have an *ex-post* contract with the


\(^{152}\) Eg. “Rogers Individual Plans” Rogers Wireless, Online: Rogers Wireless <http://www.rogers.com/web/rogers.portal?_nfpb=true&_pageLabel=wlrs_plans>
provider. This is because the average consumer could be seen to have switched phones around that the time that the minimum length of formal contract would have expired. Factoring in that consumers have the option of entering into terms of contracts longer then a year, it can be safely extrapolated that the SL Practice does not provide an *ex-post* contract for the average consumer.

Even though the SL Practice can be understood as not engaging the average consumer, it is still possible to consider it an *ex-post* contract. With not every Canadian consumer being average, it is still possible to establish that the SL Practice creates an *ex-post* contract for some consumers in the market. There can be viewed to be a myriad of different lengths of time that Canadian consumers use their phones, a great deal of which would be over a year. With the naturally diversity of consumer behavior, it is only practical to consider that the SL Practice effects some consumers. Reinforcing this point is the use of the SL Practice by the dominant firms. Without Rogers, Bell, or Telus realizing that some consumers would want to use their mobile phones after the contract expired, it is only rational that they would have never have adopted an unlocking policy. The actions of the dominant firms can therefore be seen as an implicit acknowledgment that the SL Practice creates an *ex-post* contract with some Canadian consumers.

After establishing that the SL Practice may be seen as an ex-post contract with some Canadian consumers, a look must be done as whether it can be realistically seen to create a barrier to entry. Normally such an analysis would be difficult without knowing an approximate amount of consumers that are affected under the *ex-post* contract. This is because for a barrier to entry to be established as anti-competitive under Aghion and Bolton, the barrier must be shown to prevent the entrant from achieving scale. For if this number of consumers under an *ex-post* contract is not known, it is inherently problematic to prove that the barrier is sufficient to prevent
scale. In the case of mobile phone service however, it can be seen that this lack of statistics may not fully limit such a determination from being made. With new entrants to the Canadian market required to pass through a progressive gauntlet of impediments to being established, any prevention however small, can be considered a compounding factor leading to a barrier that prevents scale. As it is commonly understand, barriers to entry can sometimes be cumulative. With a new entrant required to outlay billions of dollars on frequency licenses and infrastructure, every available consumer can be seen as an important consideration in a company entering a new market. As the SL Practice undeniably limits some available consumers, this ex-post contract can be seen to further the already present barrier for entry in this market. With this being the case, it is therefore possible to argue that the SL Practice is in fact anti-competitive, without knowing the exact amount of consumer affected.

There is however, a technical problem with applying this cumulative logic of barrier to Aghion and Bolton’s theory. Aghion and Bolton’s economic observations on competitive effects were based on looking at impact of individual barriers on the market. With the SL Practice not able to prevent scale on its own, a narrow interpretation of Aghion and Bolton’s theory would see that the SL Practice would have little competitive effect on the market. As Aghion and Bolton identified themselves, the principles of their theory are “very general”.\(^{153}\) In choosing to take a wide interpretation on Aghion and Bolton’s work on ex-post contracts, it can be understood that a small barrier which compounds in an already present larger barrier also serves to prevent an entrant from achieving scale. Even though the small barrier does not prevent the entrant on its own, the impact on the market is the same as if the barrier accomplished the result

\(^{153}\) Supra n. 8. at 399.
by itself. For this reason, it can be rationalized that the small barrier of the SL Practice can be seen as anti-competitive.

The final point of analysis relates to the willingness of consumers to enter into the SL Practice. Following Aghion and Bolton’s logic about the collective action problem in long-term contracts, it seems likely that mobile service contracts would fall into this category. With consumers purchasing phones at different times and not often communicating their decisions publically, their individual actions with the providers are isolated. With this being the case, it is only natural that consumers would face a collection action problem.

With this analysis showing that the ex-post contract of the SL Practice falls inline with Aghion and Bolton’s economic theory, the SL Practice can clearly be viewed to be anti-competitive.

B. SOFTWARE LOCKING PRACTICE AS A SWITCHING COST

The second economic approach taken towards the SL Practice, will be viewing it in terms of creating a switching cost for consumers. With SLs forcing consumers to either unlock their phone or buy a new one after their initial contract, the SL Practice can be identified to impose a cost for consumer wishing to switch providers. In looking over and analyzing the theoretical economic work of Paul Klemperer, the SL Practice will be shown to create anti-competitive switching cost.

i. THEORETICAL BASIS

Through identifying that consumers are logically drawn away from switching sellers when there is a substantial cost associated, Klemperer reveals a two-pronged effect on social
welfare. First, substantial switching cost locks consumers into relationships with their current supplier. This lock-in serves to reduce consumer choice by making personal preference for another supplier’s services less attractive. Klemperer identified that markets with low consumer turnover are especially affected by such practice. Since individuals are forced to suffer a direct welfare cost associated with switching service providers, the number of consumers switching suppliers is effectively limited. Second, substantial switching costs lock suppliers into relationships with their consumers. With suppliers aware that their present consumers are ‘locked in’, Klemperer found that they are less motivated to engage in new innovation or offerings in order to attract new customers. This behavior results in a stifling of innovation, and a creation of a system in which sellers milk their consumers.

ii. ANALYSIS

Both of Klemperer’s anti-competitive lock-ins can be seen to rely on two key assumptions. The first is that the switching cost has to be substantial enough to prevent consumers from abandoning the seller. For if the cost of switching is low, it is only logical to view that the consumer would pay the cost and switch to a competitor. This will effectively nullify the establishing of any lock and prevent any detriment to social welfare. The second is that the consumer or the seller has to be aware of the switching cost. Without either actor being conscious of the cost, there is no lock-in and therefore no detriment.

154 Supra n. 9 at 99.
156 Ibid at 535.
157 Supra n. 9 at 116.
Starting with the substantiality requirement, there can be viewed to be both a tangible and intangible cost associated with the SL Practice. The tangible cost is the $50 to $75 that the large providers charge to remove the SL. Even though consumers are free to use cheaper options such the ones discussed in Part III, this thesis has already shown that such methods carry with them undesirable risks. The intangible cost is the time that a consumer has to spend in removing the SL. For if the consumer wishes to break free of the SL, the SL Practice inherently requires that the consumer spend time on notifying the provider of their intention to pay the unlocking fee.

Looking at the intangible cost, it can be clearly understood that while spending time on unlocking can be seen as an annoyance, it could not warrant a substantial barrier for a consumer switching. Canadian consumers have become accustom to lengthy wait times for consumer service, and this feature of the SL Practice would likely be no different. While an expenditure of time is cost, it should not be viewed to be substantial enough to prevent the consumer for unlocking the phone.

Turning to the tangible cost, the amount of $50 to $75 will be analyzed in terms of its relative cost for consumer service in the short term. This scope of examination follows the American jurisprudence in *Eastman Kodak Co. v. Image Technical Services Inc.*\(^{158}\), where the Supreme Court set out that the substantiality of switching costs should be analyzed within the average consumer’s perception.\(^{159}\) With it commonly understood that consumers only perceives costs or savings in the short term, it is only logical that this thesis balances the amount of the unlocking fee to the potential savings in service cost that a Canadian consumer would gain in the first three months of service. In this way, the $50 - $75 unlocking fee can only be seen as a

\(^{158}\) 504 U.S. 451 (1992)

\(^{159}\) *Ibid.*
substantial switching cost if a consumer would be unable to recoup this amount through switching providers. With Canadian providers currently offering comparable service package prices that vary by only $10 - $15, it can be clearly identified that the unlocking fee would not be compensated for within the first three months. With the cost of switching being more than the cost of perceived savings, the unlocking fee can be seen to present itself as substantial.

Understandably there is mitigating cost factor that was neglected from consideration within the above substantiality analysis. This factor is the discounted or free phone promotions that Canadian companies routinely offer new consumers when they join. With competitive providers offering this discount, it can be argued that this value might serve to offset the unlocking fee and nullify its substantiality. Even though this argument is logical in the abstract, its applicability to the issue addressed in the thesis is apples to oranges. Channeling Justice Blackmum in *Eastman Kodak*, the principle issue to address in a switching cost here relates to the financial cost that a consumer has to spend to unlock themselves from the supplier. The offerings of a new or discounted device from a competitor might motivate some consumers to abandon their phone and change providers, but the reality is that those who wish to use their old phone are still locked-in by substantiality of the SL unlocking fee. For the consumers who wish to continue to use their old phone out of preference or unwillingness to be tied to new contract, the substantiality of the cost does not change. Furthermore, when it is realized that the new phone would itself have a SL, the consumer who accepts the new phone

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160 Supra n. 155 at 535.
161 504 U.S. 451 (1992), at 2086-2088
162 While it can be suggested that suppliers offering discounts ex ante challenges the notion that creating switching costs is good for suppliers, it should be noted that within the Canadian mobile service market the offering of free or discounted phones is an industry practice that would occur regardless of the SL. It is only logical to understand that suppliers offering free phones and discounts based on incentivizing consumers to sign long contract because the discounts are only given when a consumer agrees to a specified term of service. The effect on the switching cost can therefore be seen as supplementary.
offering simply perpetuate the SL fee into the future. In this way the cost SL fee cannot be truly identified as offset, but simply delayed. Finally, it should be noted that it is a commonly held practice for Canadian mobile phone providers to offer better mobile service plans for consumers who use unlocked devices on their network.\textsuperscript{163} As such, any incentive offered by the new providers to offset the unlocking fee would serve to mitigate the future discount that the consumer could have received if chose to continue to use their unlocked phone.

Moving on to the market awareness of the SL Practice, the lock-in will examined from both the consumer and provider’s perspective. In light of the proposed legislation of Manitoba and Ontario, there is an implied notion that Canadian consumers are generally unaware of the existence of the SL Practice. This notion is furthered by the lack of publication that the SL Practice receives on the websites of the large market participants. Without finding that consumers know about the unlocking fee, it is difficult to establish that the all affected consumers actually perceive a switching cost being present. While this realization casts doubt on the possibility of establishing that every consumer affected by the SL Practice is locked-in, there can be a natural assumption that a significant number of consumers are aware. Identified by the growing number of newspaper articles and editorials written on the subject,\textsuperscript{164} Canadian consumers are becoming more aware of the SL Practice and therefore of their lock-in. With that being the case, it is safe to rationalize that the SL Practice only serves to currently lock-in a limited number of Canadian consumers. As Klemperer’s reduction of welfare from the consumer lock-in does not have numerical threshold per se, the fact that even a small number of Canadian consumers are affected is enough to warrant the SL Practice a classification as detrimental.

\textsuperscript{163} Sheryl Smolkin, "He Cut his Phone Bill by $416 just by asking" Moneyville (May 09, 2012), online: <http://www.moneyville.ca/blog/post/1175602--he-cut-his-phone-bill-by-416-just-by-asking>

Looking finally at the market awareness of service providers, it quite obvious from their actions that they are all conscious of the SL Practice. As the three large service providers voluntarily implemented the SL Practice, their knowledge of the switching cost imposed by the SL can be easily implied. With the providers determining the cost of the unlocking, it is only feasible to assume that their price point directly correlated with their corporate best interest. Retention of consumers is king in the mobile service industry, and there is no doubt that their price point for the SL Practice helps this endeavor in some way. With the lack of innovation within the Canadian market that was discussed in Part II of this thesis, there is also some direct evidence that the Canadian market already lags behind its innovative potential. With the implementation of the SL Practice, there is a real chance that this lag could have been exacerbated by supplier’s lock-in to consumers. Following this line of reasoning through, as the supplier lock-in created by the SL Practice can potentially serve to further reduce innovation in the Canadian market, it can be identified to be detrimental to social welfare.

With this above analysis identifying that the cost of the SL Practice is substantial and there is market awareness from both the consumer and the supplier, the SL Practice can be clearly identified as reducing overall social welfare. This thus places SL Practice as an anti-competitive switching cost.
VI. SOFTWARE LOCKING AND THE COMPETITION ACT

With all the large providers in the Canadian mobile service market engaging in the SL Practice, it is only natural for this thesis to examine the SL Practice in light of the abuse of joint dominance provision of the Competition Act. Through subjecting the SL Practice to Section 79, this thesis will illustrate that a legal analysis of the practice provides an alternate avenue of arriving at an anti-competitive determination of the practice.

A. ABUSE OF JOINT DOMINANCE

Canada’s current prohibition on companies abusing their jointly dominant position is found within Section 79 of the Act. In briefly exploring the details of the statute, the basic parameters of Canada’s legal prohibition can be identified. Section 79(1) sets out on that there are three elements for determining a practice to be prohibited. The first is found in subsection (a), and requires that there must be one or more persons found to be in complete or substantial control of a class of business throughout Canada.\textsuperscript{165} The second is in subsection (b), and prescribes that those people have to be engaged in a practice of anti-competitive acts.\textsuperscript{166} Third and finally, that practice must have had, is having, or is likely to have the effect of preventing or lessoning competition substantially in a market.\textsuperscript{167}

In 2006, the Federal Court of Appeal set down in \textit{Canada (Commissioner of Competition) v. Canada Pipe Co.}\textsuperscript{168} how there three elements of Section 79(1) should be interpreted. Ultimately the court found that they were, “conjunctive”\textsuperscript{169} and they determined that all three

\begin{itemize}
  \item \textsuperscript{165} Competition Act, Section 79(1)(a).
  \item \textsuperscript{166} \textit{Ibid.}, Section 79(1)(b).
  \item \textsuperscript{167} \textit{Ibid.}, Section 79(1)(c).
  \item \textsuperscript{168} [2007] F.C.A. 233.
  \item \textsuperscript{169} \textit{Ibid.}, at para 59.
\end{itemize}
elements need to be present in order to establish that the practice is abusive. Following the legal
guidance of Canada Pipe, the SL Practice will now be subjected to the analysis gauntlet of
subsection (a), (b), and (c) of Section 79(1).

**B. ANALYSIS**

To meet the first bar set under Section 79(1)(a), Rogers, Telus, and Bell must be found to
be in substantial control of the mobile service market throughout Canada. Before engaging in an
exploration of whether or not the large providers are in fact in control, it must be established that
the mobile service market is a relevant market in itself. With mobile phone service being
obviously separate from normal landline phone service, such a determination can be made easily.

Turning to look at whether or not these providers are in substantial control of the mobile
service market, case law suggests that they are. In Waste Management\textsuperscript{170}, the CB found that two
companies possessing 80% of the market was substantial\textsuperscript{171}. Later in Laidlaw\textsuperscript{172}, the CB
implicitly referred to anything over 50% giving rise to a prima facie finding of substantiability.\textsuperscript{173}
With this thesis already establishing in Part II that the combined holdings of Rogers, Telus and
Bell was 93.3%, of the Canadian market, it is not difficult to identify that this large stake would
qualify as ‘substantial’ control under Act. Furthering this clear determination is the fact that if
VNPs and RPs are excluded from consideration of Canada wide competition, Rogers, Telus, and
Bell’s market control swells to almost 99%. On the back of such glaring evidence, the SL
Practice can be easily identified to qualify under the first element of Section 79(1) test.

\textsuperscript{170} Commissioner of Competition and Waste Services (CA) Inc. and Waste Management of Canada Corporation,
(June 16, 2009), CT-2009-003.
\textsuperscript{171} Ibid.
\textsuperscript{172} Canada (Director of Investigation and Research) v. Laidlaw Waste Systems Ltd. [1992], 40 CPR (3d) 289.
\textsuperscript{173} Trebilcock, Michael et al., The Law and Economics of Canadian Competition Policy (Toronto: University of
Toronto Press, 2002) at 509.
The second element that needs to be established under Section 79(1)(b) is that Rogers, Bell, and Telus are engaging in an anti-competitive practice. Illustrated by the decision in Canada Pipe, there are two parts to finding this element. First it must be established that it is a ‘practice’, and second, it must be established that it is ‘anti-competitive’. 174

For something to be a considered practice, the court in Canada Pipe reaffirmed the earlier Competition Tribunal (“Tribunal”) reasoning that it had to amount to something that was sustained and systematic, and not simply an “isolated incident”. 175 With Part II of this thesis showing that the SL Practice has been going on over 1 year with Bell, and almost 6 months with Rogers and Telus, it is evident that the SL Practice can be considered a sustained and systematic policy by the large providers. Prior to 2009, in order for this mutual policy to be considered a ‘joint practice’, there would have had to be some coordinated link found between the actions of the providers. 176 With there being no direct evidence of these three providers coordinating the introduction of the SL Practice, the legal analysis for establishing abuse of joint dominance would have been frustrated. With the CB issuing new draft guidelines in 2009 however, this potential barrier for the SL Practice can be theoretically averted. As the SL Practice was adopted by all three providers in a short time frame, the draft guidelines suggest that the CB would infer a joint practice as long as it can be shown to be exclusionary in nature. 177 While the draft guidelines seemingly allow the SL Practice to proceed in the abuse of joint dominance analysis, there is an inherent problem with placing too much weight on this document. The guidelines are only a draft, and it is a commonly held perception by competition law practitioners that such drafts carry no legal significance in practical application. In light of this, the SL Practice can only

174 Supra n. 168 at para 60.
175 Ibid.
177 Ibid.
be seen to pass over the coordinated link hurdle on the theoretical notion that the CB would adhere to their draft guidelines in this instance. The remaining requirement of a ‘joint practice’ is showing that it is exclusionary in nature, and that analysis will be conducted within the below discussion on whether the practice can be considered anti-competitive.

Section 78 of the *Competition Act* is directly entitled, “Definition of ‘anti-competitive’ act”\(^{178}\), and lists 11 acts which are defined to be anti-competitive. Even though the SL Practice does not formally match the 11 examples of anti-competitive acts provided, the courts and the Tribunal have identified that such examples are merely illustrative. Viewing the list as non-exhaustive, the court in *Canada Pipe* channeled the Tribunal rationale in *Canada (Director of Investigation and Research) v. NutraSweet Co.*\(^{179}\) where they identified that the examples in Section 78 all had "an intended negative effect on a competitor that is predatory, exclusionary or disciplinary".\(^{180}\) In identifying this commonality in the examples, the court in *Canada Pipe* established a test where an act was deemed to be anti-competitive if it had an intended purpose of being predatory, exclusionary, or disciplinary.\(^{181}\) Understanding that discovering subjective intent for this determination would be nearly impossible, the court established that it was to be judged on an objective basis.\(^{182}\) With Part III of this thesis illustrating that the SL was designed to preventing consumers from switching providers, it is not difficult to view that as the purpose implementing the SL Practice is the same. In terms of being predatory, exclusionary or disciplinary, it is easy to identify that it would meet the second of those characteristics. Channeling the analysis of Aghion and Bolton’s theory conducted in Part V of this thesis, the SL Practice inherently excludes new companies from entering the market by limiting the number of

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\(^{178}\) *Supra* n. 119, Section 78.
\(^{179}\) [1990], 32 CPR (3d).
\(^{180}\) *Ibid*.
\(^{181}\) *Supra* n. 168, at para 66.
available customers. This exclusion of new entrants naturally facilitates a determination that the practice is exclusions. As a result, the SL Practice can not only be seen as an anti-competitive act, but also fulfilling the CB’s draft guidelines on establishing a joint practice. The second element of Section 79(1) is therefore established.

Prior to departing the analysis of this second element of 79(1), it must be noted that the courts and Tribunal have established the defense doctrine of ‘valid business justification’ under 79(1)(b). In this way if Bell, Rogers or Telus could provide proof of a legitimate purpose for having the SL Practice, then they could potentially refute a finding that it is an anti-competitive practice.\(^{183}\) Identified in \textit{Canada Pipe}, these market participants would go beyond being showing “mere proof of some legitimate business purpose”\(^{184}\) and illustrate that the SL Practice was adopted for a real business purpose. After establishing in Part III of this thesis that Bell’s projected purposes for using SLs are ludicrous in practice, the only legitimate business purpose that could be argued for the SL Practice would therefore be a compensation of time. As removing the SL after the expiration of the service contract would require a positive effort from the provider, charging a fee to compensate for employees time to remove the lock could be seen as legitimate. This business purpose breaks down however when the fee charged would go above and beyond that necessary to compensate for human resource cost. With esteemed Canadian technology professor, Dr. Michael Geist articulating that the process takes “about three minutes”\(^{185}\), that would mean that Rogers charges $1500 per hour for the service. With the unlocking service not requiring a rocket scientist to perform, this amount is obscenely higher than what could be expected to compensate for the employee costs. Due to this large

\(^{183}\) \textit{Ibid.} at para 88.

\(^{184}\) \textit{Ibid.}

\(^{185}\) \textit{See, supra} n. 77.
discrepancy, this argument falls foul of application under this defense doctrine. If however, the unlocking fee was marginal and better reflected the actual cost to the Canadian providers, then there is no reason why this possible defense could not be applied. With the fees under the SL Practice being what they are, the SL Practice can be seen to successfully pass over the hurdle of the second element of 79(1).

The third and final element that must under be established under 79(1)(c) is that the SL Practice has had, is having, or is likely to have, the effect of substantially preventing or lessening competition in the mobile service market. With the SL Practice having been engaged in by all large providers for almost six months, this paper will analyze the ‘is having’ part of Section 79(1)(c). The court in Canada Pipe established that in order to properly engage in such consideration, the level of competition in the market with practice must be juxtaposed with the perceived level of competition that would be in market without it.\textsuperscript{186} If it could be established that there would be substantially more competition without the SL Practice, Canada Pipe identified that the SL Practice would therefore pass the third and final element of Section 79(1).\textsuperscript{187}

Revisiting the analysis of the SL Practice conducted in Part V of this thesis, proving substantiality is extremely difficult. With the SL Practice only viewed to affect a small percentage of the Canadian population, the only way to establish it is by utilizing creative reasoning. Following the dictum of the court in Canada Pipe, a substantiality determination is contextual.\textsuperscript{188} With the context for substantial being the Canadian mobile service market, if it can be shown that a minor reduction of competition is substantial for this market, the SL Practice can

\textsuperscript{186} Supra n. 168 at para 58.
\textsuperscript{187} Ibid.
\textsuperscript{188} Ibid.
pass through this statutory hurdle. The only way of doing so is by channeling the earlier economics of Aghion and Bolton. For if the anti-competitive effects of the SL Practice inhibited 1% of Canadians from being free, and 1% of the market was all that was needed for a new entrant to join, this could be considered substantial as a barrier to entry. Looking into the numbers, 1% of Canadians translates to roughly 250,000 people. With Wind having just over 250,000 customers in 2011, it can be identified that 1% of the market may be all that is necessary for a new entrant to enter in Canada. So if the SL Practice can be shown to affect 1% of the Canadian market in manner that prevented those consumers from being free, there is an argument that the SL practice has a substantial effect on the market. The problem with properly establishing such an argument is two-fold.

First, this creative argument providing the substantiability of the SL Practice is extremely weak in application. In reality it would difficult if not impossible to establish how many Canadian consumers are affected by the SL Practice. While 1% can be approximated, it is simply a rough estimate. Without knowing approximately how many consumers are affected it is unlikely that the CB or the courts would have grounds to find substantiability. Second, this creative argument relies on the possibility of a new entrant being able to attract enough affected customers to enter. Even if it could be established there 1% of the market was affected, it is illogical to believe that all of those affected would go to the new entrant. In reality, a new entrant would foresee only gaining a fraction of those available customers. With no brand or reputation established in the market, it is only rational to understand that the number of consumers affected by the SL Practice would have to be much greater than 1% to act as a barrier to entry. As such, it is extremely unlikely that the SL Practice could actually pass through the substantiability requirement of Section 79(1)(c).
With all three parts of Section 79(1) necessary in order to prove abuse of joint
dominance, this thesis has shown that it would be virtually impossible for the SL Practice to qualify.
VII. CONCLUSION

As was shown, the SL Practice is anti-competitive. Through the thesis’s economic analysis identifying that it serves as both a substantial switching cost and an ex-post contract, the current SL Practice is clearly detrimental to Canadian society. Under current legislation however, this thesis has identified that this practice cannot be properly regulated and prohibited. With the Telecommunications Act’s enforcer forbearing in the mobile phone market, the sole responsibility falls to the CB. Unfortunately as was presented in Part VI, without the SL Practice affecting a significant number of Canadian citizens, the CB does not have a legal footing to intervene. As the SL Practice does not meet the current qualification of an anti-competitive act that is capable of prohibition under Section 79(1) of the Competition Act, even if the CB retracted their deference of the mobile service market to the CRTC, the CB would be unable to regulate its current use.

Unless the SL Practice starts to radically affect more Canadian consumers, it is doubtful whether the SL Practice would ever meet the necessary qualifications of a prohibited act under current legislation. For this reason, this thesis suggests that the burden of alleviating this societal problem should fall squarely on consumer protection legislation. As consumer protection legislation can be drafted to specifically target the SL Practice, any detrimental effects to competition and individual welfare could be alleviated. National Bill C-343 and Ontario’s provincial Bill 5 can therefore viewed to be ideal legislative framework. As both proposals serve to prohibit the SL Practice without requiring a substantial market effect, they would serve to increase social welfare in the market.
Even though it can be acknowledged that the current political climate has prevented those proposals ascent into law, it is foreseeable that if consumers are better educated on the detrimental effects of the SL Practice, they would likely support a similarly drafted piece of legislation in the future. With popular support for consumer protection legislation not being afflicted by the same collective action problem as their consumer purchases, properly informed Canadian consumers might eventually break free from the SL Practice. Given the long history of the Canadian consumers being subjected to low rates of competition within the mobile service market, such a legislation decision would be a welcome change.
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