TECHNOLOGICAL TYING OF THE APPLE IPHONE: UNLAWFUL IN AUSTRALIA?

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Technology vendors are producing products and services which, by design, use technological methods to restrict interoperability and tie the use of their products and services to the use of other products and services from the same vendor. Often this type of technological tying raises concerns that it is anti-competitive. One such example is the technological tying of the Apple iPod to music purchased from the Apple iTunes Music Store, and vice versa. The new Apple iPhone contains technological locks which tie the iPhone to the mobile telephony services of a particular third-party mobile carrier, a new development in technological tying, and much more likely to be unlawful in Australia. The purpose of this article is to examine whether the Trade Practices Act 1974 (Cth), in its current form is adequate to deal with this type of technological tying.

I INTRODUCTION - DIGITAL RIGHTS MANAGEMENT AND TECHNOLOGICAL TYING

Increasingly, products and services are being bundled together in the computer, media, entertainment, and telecommunications sectors. Such bundling may be economically efficient and pro-competitive if it is the result of economies of scope which give rise to cost savings. Consumers benefit if the integrated product is supplied to them at lower prices. On the other hand, such bundling may be the result of a misuse of market power. A supplier with market power in relation to one product or service may force consumers to take a second product or service which consumers do not want, or can obtain more cheaply, from another supplier. If so, consumers are harmed and more efficient suppliers are foreclosed.[1]

In the past, suppliers have given effect to such anti-competitive conduct by way of conditions in contracts or licence agreements. However, the need to impose such a tie by way of contract has been obviated by the increasingly widespread use of methods of

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1 See S Corones, 'Technological Tying in the Computer Industry: When Does it Contravene s 46 of the Trade Practices Act' (2003) 3 *Queensland University of Technology Law and Justice Journal* 47.

technologically tying products together, such as restrictive Digital Rights Management ('DRM') technology.[2]

DRM systems are not perfect, and most DRM systems have been 'cracked' or circumvented, often by groups of enterprising amateurs, collaborating over the Internet. Manufacturers use their ingenuity to devise better and stronger DRM systems, and technology enthusiasts use their ingenuity to devise ways around the DRM, motivated by the intellectual challenge, a philosophical objection to DRM, quest for glory and bragging rights, or more practical considerations. Thus far, the manufacturers have lost every major battle.

A *Apple Inc.'s DRM track record*

Apple Inc.'s previous use of DRM in their entertainment-related products and services has caused significant controversy. Apple Inc.'s proprietary DRM system, known as FairPlay, is the only DRM system supported by the Apple iPod, and is used to encrypt all content (including music, videos, and movies) purchased from the Apple iTunes Music Store.

The effect of this is that content which consumers purchase from the iTunes Music Store can only be used on hardware and software that support FairPlay DRM. Because Apple Inc. refuses to license FairPlay to other manufacturers, the only devices which support FairPlay DRM are produced by Apple Inc.

FairPlay is the only DRM technology that the iPod supports, and as a consequence, consumers with iPods cannot purchase content from suppliers other than Apple and use it on their iPods. Those other suppliers of content use different, more openly-licensed DRM technologies. When a competitor of Apple Inc. devised a way to encrypt music in a FairPlay-compatible format, and sold music through their own website which could be played on Apple Inc. iPods, Apple Inc. threatened to sue, and updated the software in iPods to prevent that music from being played on iPods.[3]

Despite the controversy caused by Apple Inc.'s use of FairPlay DRM, until recent times their conduct was limited to technologically tying Apple Inc. goods and services to other Apple Inc. goods and services, and as we discuss below,[4] would only be unlawful in Australia if it had the purpose, effect or likely effect of substantially lessened competition.

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[2] See generally, D Clapperton and S Corones, 'Locking in Customers, Locking out Competitors: Anti-Circumvention Laws in Australia and Their Potential Effect on Competition in High Technology Markets' (2006) 30 *Melbourne University Law Review* 657.

[3] See generally Wikipedia, *FairPlay* (2007) <http://en.wikipedia.org/wiki/FairPlay#Harmony:_RealPlayer_Music_on_the_iPod> at 17 October 2007. For a case study of Apple's iTunes Music Store of how the doctrines and principles of copyright and contract law, DRM systems (including anti-circumvention laws), and online media distribution models interact with each other see: *iTunes How Copyright, Contract, and Technology Shape the Business of Digital Media – A Case Study* (The Berkman Centre for Internet & Society, Harvard Law School, 15 June 2004).

[4] This conduct would constitute exclusive dealing within the meaning of s 47(2) of the *Trade Practices Act 1974* (Cth) only if it had the purpose, effect, or likely effect of substantially lessening competition. See below part IIIC2.

Apple Inc.'s marketing strategy for the iPhone in some foreign countries steps over a significant line – it is no longer forcing the use of their own products and services, it is forcing the acquisition of services from entirely unrelated companies. This conduct may be *per se* unlawful in Australia.

B *Tying or locking of mobile phones to specific carriers*

The sale of mobile phones which are tied to a particular carrier is long-established in Australia. The justification for this behaviour is that the mobile phones are sold – or often supplied 'free' – to consumers at less than their actual cost ie the mobile carrier subsidises the cost of the phone. The carrier then recoups this loss over the term of the contract with the consumer.

Typically, the mobile phones will be unlocked by the carrier upon request, once the initial contract term has expired, or an early termination fee of some description is paid, so that the carrier may recoup the subsidy.[5]

Where the carrier has not subsidised the cost of the phone, there seems to be no legitimate pro-competitive justification for locking the phone to the services of that carrier, especially where that locking is permanent and not just for the duration of the initial contract.

II THE APPLE IPHONE

Apple Inc. co-founder and CEO Steve Jobs announced the Apple iPhone at the Macworld convention in January 2007,[6] describing the iPhone as 'a revolutionary and magical product that is literally five years ahead of any other mobile phone.'[7] The iPhone was said to combine:

> three products – a revolutionary mobile phone, a widescreen iPod with touch controls, and a breakthrough Internet communications device with desktop-class email, web browsing, searching and maps – into one small and lightweight handheld device.[8]

The iPhone functions as a quad-band[9] GSM mobile phone with EDGE support,[10] a 2.0 mega pixel digital camera, a portable media player with iPod-type functionality, which allows the playing of music and video (including purchased television content and motion pictures), an organiser with PDA-like functionality, and an Internet browser and email client with internet connectivity via WiFi (allowing the iPhone to be used on

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5 Anecdotal evidence suggests that some carriers, such as Hutchison 3G Australia Pty Ltd (3), will refuse to unlock some phones under any conditions.

6 Macworld, *Macworld Expo Keynote Live Update* (2007) <http://www.macworld.com/news/2007/01/09/liveupdate/index.php> at 15 October 2007.

7 Apple, *Apple Reinvents the Phone with iPhone* (2007) <http://www.apple.com/pr/library/2007/01/09iphone.html> at 15 October 2007.

8 Ibid.

9 'Quad band' means a GSM mobile phone which can operate in the 850, 900, 1800, and 1900 MHz bands, allowing it to be used in almost any country in the world with a GSM mobile phone network.

10 'EDGE' is an acronym for 'Enhanced Data rates for GSM Evolution', an enhancement to 2G GSM networks which allows for higher-speed data transfers for Internet access and other purposes. Presently, only the Telstra mobile phone network supports EDGE in Australia.

residential or corporate wireless networks) or EDGE (via the mobile telephony network).

Apple Inc. announced on the same day that Cingular (a then-subsidiary of AT&T, currently branded as AT&T Mobility) had been chosen as 'Apple's exclusive US carrier partner' for the iPhone.[11] Other exclusive distribution agreements have been announced for Germany, France and the United Kingdom.[12] However, it appears that Apple will not itself sell iPhones to the public in Germany and France, making their carrier partners the sole suppliers.[13]

The precise terms of the agreement between Apple and AT&T are not known, but some details have been leaked by the press, and the terms of the agreement are alleged to include that:

- AT&T would be the exclusive provider for iPhone mobile telephony services in the US;
- the duration of the exclusive agreement was five years;
- Apple Inc. would receive a proportion of revenues generated by AT&T iPhone users;[14]
- iPhone users were to be prohibited from using a mobile provider other than AT&T by way of technological locks on the iPhone; and
- Apple Inc. would be restrained for a period of time from developing a version of the iPhone which would be compatible with CDMA wireless networks – the network technology used by many of AT&T's largest competitors.[15]

The back of the retail packaging of the iPhone states: 'Requirements: Minimum new two-year wireless service plan with AT&T required to activate all iPhone features, including iPod features.'[16]

In smaller print, further down the back of the packaging, it states in part: 'Credit check required; must be 18 years or older. Service plan with AT&T required for cellular network capabilities on expiration of initial two-year agreement.'[17]

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[11] Apple, above n 7.

[12] Apple, *Apple Chooses O2 as Exclusive Carrier for iPhone in UK* (2007) <http://www.apple.com/pr/library/2007/09/18iphone.html> at 15 October 2007; Apple, *Apple Chooses Orange as Exclusive Carrier for iPhone in France* (2007) <http://www.apple.com/pr/library/2007/10/16orange.html> at 17 October 2007; Apple, *Apple and T-Mobile Announce Exclusive Partnership for iPhone in Germany* (2007) <http://www.apple.com/pr/library/2007/09/19iphone.html> at 15 October 2007.

[13] Apple, *Apple Chooses Orange as Exclusive Carrier for iPhone in France*, above n 12; Apple, *Apple and T-Mobile Announce Exclusive Partnership for iPhone in Germany*, above n 12; Email from Natalie Kerris (Apple press contact) to Dale Clapperton, 17 October 2007.

[14] Richard Wray, *Vodafone put off by Apple's demand for big iPhone slice* (2007) The Guardian <http://business.guardian.co.uk/story/0,,2119921,00.html> at 15 October 2007.

[15] *Hohlman v Apple Inc.*, No 5:07-cv-05152-RS (ND Cal, filed 5 October 2007) 'Class action complaint for damages, injunctive relief and restitution' [38]-[44]; *Smith v Apple Inc.*, No 1-07-CV-095781 (Sup Court of Cal, filed 5 October 2007) 'Class action complaint for treble damages and permanent injunctive relief' [44].

[16] Anand Lal Shimpi, *Apple iPhone: Unboxed* (2007) AnandTech <http://www.anandtech.com/gadgets/showdoc.aspx?i=3025> at 15 October 2007.

[17] Ibid.

Despite the technological tie to AT&T, the iPhone has been phenomenally successful. Launched on 29 June 2007, Apple Inc. reported selling 270 000 iPhones in the first two days of its release,[18] and sold 1 000 000 iPhones within 74 days.[19]

US financial disclosure rules require Apple to separately account for 'deferred revenue' to be received from Apple Inc.'s carrier partners.[20] This has allowed financial analysts to calculate that AT&T pays Apple Inc., on average, US$18 per month per iPhone activated on the AT&T network. Over the two-year contract term, an iPhone user will pay more to Apple Inc. in these indirect fees than the purchase price of the phone.[21] Media reports claim that European mobile operators have offered Apple Inc. as much as 40% of revenues from iPhone users to secure exclusivity.[22]

The cost of these secret commissions to Apple Inc. is, of course, ultimately born by the consumer, in the form of more expensive mobile services.

A *Technological enforcement of the iPhone-AT&T tie*

Although there is no express contractual requirement to enter into a mobile contract with AT&T to purchase the iPhone, a newly purchased iPhone is in a disabled or 'locked' state and cannot be used until it is 'activated'. All functionality of the iPhone is disabled until the phone is activated[23] – the iPhone cannot even be used for iPod-type functions, such as playing audio files, until activation takes place.

Activation is a technical process, during which the user electronically provides their personal details, contact information, credit card details, etc to AT&T and contracts with AT&T for a two-year mobile telephone plan.[24] Once the new contract with AT&T is complete, an electronic signal is sent to the iPhone which 'activates' or unlocks it, and all functions of the phone are available from that point onwards.

However, even post-activation, the iPhone cannot be used with mobile telephony services provided by any carrier other than AT&T. Inserting a SIM card of another mobile carrier will not work, and will display an error message on the iPhone. This means that US-based iPhone users can not use their iPhones with any carrier other than AT&T, even after the expiration of their initial two-year contract.

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[18] Apple, *Apple Inc. Q3 2007 Unaudited Summary Data* (2007) <http://images.apple.com/pr/pdf/q307data_sum.pdf> at 15 October 2007.

[19] Apple, *Apple Sells One Millionth iPhone* (2007) <http://www.apple.com/pr/library/2007/09/10iphone.html> at 15 October 2007.

[20] Saul Hansell, *The $831 iPhone* (2007) New York Times <http://bits.blogs.nytimes.com/2007/10/25/the-831-iphone/> at 7 January 2008.

[21] Ibid.

[22] Richard Wray, *O2 wins Apple iPhone deal – at a hefty price* (2007) The Guardian <http://www.guardian.co.uk/technology/2007/sep/17/mobilephones.apple> at 7 January 2007.

[23] With the exception of using the iPhone to call an emergency services number, such as 112 or 911.

[24] AT&T appears to make an exception for users with poor credit ratings, who are permitted to use a month-to-month plan at a higher fee.

B *Circumventing the iPhone-AT&T technological tie*

The US launch of the iPhone started another round of the *DRM v The People* arms race. In less than two months, George Hotz, a 17-year old American student publicly announced a method of unlocking the iPhone.[25] Hotz's original method involved disassembling the iPhone and soldering its components, and as such required specialised skills, making this method unsuitable for most consumers.[26]

Software-only unlocking methods were developed thereafter, and iPhone unlocking software tools have evolved to the point where they can be used by ordinary consumers.[27] Many observers would have expected Apple Inc. to sue under anti-circumvention laws to suppress the development and distribution of these tools, yet this has not yet happened. There appears to have been only one reported case in which Apple or AT&T has even threatened legal proceedings.[28]

Yet if Apple Inc. is showing restraint in dealing with iPhone unlocking via the legal system, it seems to be striking back at a technological and customer support level. Apple announced that the unlocking of an iPhone, by software or otherwise, would void the warranty on the iPhone, a claim which is supported by the warranty documentation.[29] Some commentators have argued that this action violates the *Magnuson-Moss Warranty Act*[30] and is unlawful.[31] Apple Inc. has also announced that unlocking the iPhone is a violation of the user's licence to use the iPhone software.[32]

Apple Inc. has also signalled an intention to continue working against unlocking tools and unlocked iPhones at a technological level. Apple CEO Steve Jobs described the problem of unlocking as 'a constant cat and mouse game … we have to stay one step ahead of them. It's our job to keep them from breaking in.'[33]

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25 George Hotz, *Full Hardware Unlock of iPhone Done* (2007) Finding JTAG on the iPhone <http://iphonejtag.blogspot.com/2007/08/full-hardware-unlock-of-iphone-done.html> at 16 October 2007; Brad Stone, *With Software and Soldering, AT&T's Lock on iPhone is Undone* (2007) The New York Times Online <http://query.nytimes.com/gst/fullpage.html?res=9F0DE6DC113CF936A1575BC0A9619C8B63> at 16 October 2007.

26 Hotz later traded the first unlocked iPhone for a Nissan 350Z sports car: Chris Shunk, *Teen Trades First Unlocked iPhone for Nissan 350Z* (2007) <http://www.autoblog.com/2007/08/28/teen-trades-first-unlocked-iphone-for-nissan-350z/> at 16 October 2007.

27 See, eg kGizmodo, *How the First iPhone Unlock Went Down [UPDATED]* (2007) <http://gizmodo.com/gadgets/exclusive/first-iphone-unlock-license-sold-works-but-shows-problems-298300.php> at 16 October 2007.

28 BBC News, *Legal Threats Halt iPhone Crack* (2007) <http://news.bbc.co.uk/1/hi/technology/6966600.stm> at 16 October 2007.

29 Apple, *Apple One (1) Year Limited Warranty* (2007) <http://images.apple.com/legal/warranty/iphone.pdf> at 18 October 2007.

30 15 USC §§ 2301-2312. The *Magnuson-Moss Warranty Act* is a US federal statute which governs warranties on consumer products.

31 Christopher Price, *Did Apple Violate Magnuson-Moss over iPhone Unlocks?* (2007) Phone News <http://www.phonenews.com/content/view/2386/9/> at 16 October 2007.

32 iPhone News Blog, *Unlocking iPhone Can Cause Permanent Damage!* (2007) <http://www.iphonenewsblog.com/2007/09/unlocking-iphone-can-cause-per.html> at 16 October 2007.

33 Thomas Ricker, *Live from Apple's "Mum is No Longer the Word" event in London* (2007) Engadget <http://www.engadget.com/2007/09/18/live-from-apples-mum-is-no-longer-the-word-event-in-london/> at 16 October 2007.

Apple Inc. has also released updated software for the iPhone which, if installed on an unlocked iPhone, will permanently disable the device.[34] While Apple Inc. attribute this result to 'irreparable damage' said to be caused to the iPhone's software by 'unauthorized iPhone unlocking programs', and deny that it is intentionally disabling unlocked iPhones, consumer reaction has been considerably more sceptical.

At least two class action lawsuits have been filed against Apple Inc. in the US in relation to the iPhone, alleging contraventions of federal and state antitrust and consumer protection laws, as well as other causes of action.[35]

III *TRADE PRACTICES ACT* ANALYSIS OF IPHONE TYING

The iPhone is expected to be launched in Australia some time in early 2008.[36] Given that Apple Inc. has an exclusive agreement with AT&T in the US,[37] and has announced exclusive agreements in Germany, France and the UK,[38] Apple may well pursue a similar marketing strategy in Australia.

It is not clear whether Apple inc will itself sell the iPhone in Australia. Apple Inc. sells the iPhone to the public in the US, and has announced its intention to do so in the UK, but in Germany and France, Apple's chosen mobile carrier is the sole authorised[39] source of the iPhone.[40]

Of the mobile networks in Australia, only Telstra's network supports the EDGE technology which the iPhone uses for high-speed data transfer.[41] This might make Telstra appear the logical partner for Apple, but senior Telstra executives have publicly criticised the iPhone as 'old hat' and suggested that Apple should stay out of the mobile phone market.[42]

In the course of writing this article, we requested comment from Apple Inc. on how the iPhone would be distributed in Australia. Apple Inc. declined to comment on what it described as 'rumour and speculation' concerning the launch of the iPhone in Australia.[43]

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34 Jacqui Cheng, *Apple: Firmware Update Likely to Make Unlocked iPhones "Permanently Inoperable"* (2007) Ars Technica <http://arstechnica.com/news.ars/post/20070924-apple-firmware-update-likely-to-make-unlocked-iphones-permanently-inoperable.html> at 16 October 2007.

35 *Hohlman v Apple Inc.*, No 5:07-cv-05152-RS (ND Cal, filed 5 October 2007); *Smith v Apple Inc.*, No 1-07-CV-095781 (Sup Court of Cal, filed 5 October 2007).

36 APC Magazine, *Australia Won't See iPhone 'till 2008* (2007) <http://apcmag.com/4959/australia_wont_see_iphone_til_2008> at 16 October 2007.

37 Apple, *Apple Chooses Cingular as Exclusive US Carrier for Its Revolutionary iPhone* (2007) <http://www.apple.com/pr/library/2007/01/09cingular.html> at 14 January 2008.

38 Apple, above n 12.

39 We say the sole *authorised* source because parallel-imported iPhones with the technological ties to AT&T circumvented are currently available in Australia via eBay and other methods.

40 Above n 13.

41 The Sydney Morning Herald, *Telstra to Apple: 'Stick to your Knitting'* (2007) <http://www.smh.com.au/news/biztech/telstra-to-apple-stick-to-your-knitting/2007/02/15/1171405363291.html> at 16 October 2007.

42 Ibid.

43 Email from John Marx (Apple PR executive) to Dale Clapperton, 18 October 2007.

For the purposes of our analysis we will assume the following facts:

- Apple will enter into an exclusive distribution contract with a single Australian mobile carrier ('Carrier');
- the Carrier will sell the iPhone to the public, but Apple Inc. may or may not do so;[44]
- where the identity of the Carrier is relevant, the Carrier will be Telstra;[45]
- as in the US, the iPhone will be sold in a disabled state and will not be able to be 'activated' without entering into a new mobile phone contract with the Carrier;
- as in the US, the iPhone, even after 'activation', will not be able to be used with the mobile services of any company other than the Carrier; and
- as in the US, the iPhone retail packaging will contain a statement that entering into a new mobile phone contract with the Carrier is necessary to activate the iPhone.

A *Third-line forcing*

In this section, we discuss third-line forcing in the context of Apple Inc. selling the iPhone, as well as the Carrier. This may constitute third-line forcing by Apple Inc.. Where the iPhone is sold by the carrier only, this may constitute exclusive dealing (tying) by the carrier and is discussed below in section III C 2.

Exclusive dealing is prohibited by s 47(1) of the *Trade Practices Act 1974* (Cth). Most types of exclusive dealing are unlawful only if they have the purpose, or are likely to have the effect of substantially lessening competition.[46] Third-line forcing, however, is a form of exclusive dealing that is unlawful *per se*. The nature of third-line forcing is such that it is reasonable to presume that it harms competition, and so actual harm need not be shown.[47] Once it is found that a company has engaged in third-line forcing, arguments that it did not substantially lessen competition are irrelevant.[48]

In this respect, the competition laws of Australia are somewhat unique – in the US, EU, and most other countries, third-line forcing is treated no differently from any other kind of exclusionary conduct.

Third-line forcing involves at least two separate suppliers.[49] Company A sells product A on the condition that the purchaser also acquires product B from company B, or

[44] As we discuss below, if Apple Inc. were to sell the iPhone to the public in Australia, its conduct would likely constitute per-se unlawful third line forcing. This may be a factor which weighs against Apple Inc. doing so.

[45] Much of our evaluation involves *per-se* contraventions of the *Trade Practices Act 1974* (Cth), where the identity of the Carrier is not relevant because an actual or likely lessening of competition need not be shown.

[46] *Trade Practices Act 1974* (Cth) s 47(10).

[47] 'The rationale behind a per se prohibition is that the conduct prohibited is so likely to be detrimental to economic welfare, and so unlikely to be beneficial, that it should be proscribed without further inquiry about its impact on competition.': Commonwealth, *Review of the Competition Provisions of the Trade Practices Act* (2003) 123.

[48] S Corones, *Competition Law in Australia* (Lawbook Co, 4th ed, 2007) [9.125].

[49] Since the commencement of amendments made by the *Trade Practices Legislation Amendment Act (No 1) 2006* (Cth), companies which are related body corporates are treated as a single entity for the purposes of third line forcing: ibid.

Company A refuses to sell product A because the prospective purchaser would not agree to acquire product B from company B.[50]

Third-line forcing is defined in ss 47(6) and 47(7) of the *Trade Practices Act 1974* (Cth). Section 47 of the *Trade Practices Act 1974* (Cth) provides that:

> (1) Subject to this section, a corporation shall not, in trade or commerce, engage in the practice of exclusive dealing.
> …
> (6) A corporation also engages in the practice of exclusive dealing if the corporation:
> (a) supplies, or offers to supply, goods or services;
> (b) supplies, or offers to supply, goods or services at a particular price; or
> (c) gives or allows, or offers to give or allow, a discount, allowance, rebate or credit in relation to the supply or proposed supply of goods or services by the corporation;
> on the condition that the person to whom the corporation supplies or offers or proposes to supply the goods or services or, if that person is a body corporate, a body corporate related to that body corporate will acquire goods or services of a particular kind or description directly or indirectly from another person not being a body corporate related to the corporation.

Section 47(7) is in similar terms to s 47(6), but defines third line forcing by reference to a *refusal* to supply for the reason that the person supplied has not acquired goods or services from a third party, or agreed to do so.

Thus, in order to satisfy the definition of third line forcing in s 47(6) it is necessary to satisfy the following elements:

- two separate products, Product A and Product B;
- three parties, Supplier A, Supplier B and the Customer;
- Supplier A will supply Product A to the Customer only on the condition that the Customer acquires Product B from Supplier B.

The basis upon which Apple Inc. will conduct sales of iPhones in Australia has not yet been announced. In this section we consider the implications of a number of possibilities.

1 *First Characterisation*

If Apple Inc. supplies or offers to supply goods (the iPhone) on the condition that the purchaser will acquire mobile phone services from the Carrier, the conduct will clearly fall within s 47(6).

There would be two contracts: one between Apple and the purchaser for purchase of the iPhone itself, and a separate contract between the Carrier and the purchaser for the supply of mobile telephony services. This would negate any ‘package deal’ defences.[51]

50 References to ‘goods’ in these examples should be treated as interchangeable with ‘services’.
51 See, eg *ACCC v IMB Group Pty Ltd (in liq)* [2002] FCA 402.

The next question to be addressed is whether the iPhone would be supplied *on the condition that* the purchaser acquired mobile telephony services from the Carrier. Apart from the notice on the back of the retail iPhone packaging to the effect that entering into a new contract with the Carrier is required to activate the iPhone, there seems to be no express statement from Apple Inc. that the purchaser is in fact under an obligation to contract with the Carrier.

However, 'condition' within the meaning of s 47 encompasses more than just express contractual conditions, and has a meaning 'uncircumscribed by contract law notions.'[52] Section 47(13) provides that:

> (13) In this section:
> (a) a reference to a condition shall be read as a reference to any condition, whether direct or indirect and whether having legal or equitable force or not, and includes a reference to a condition the existence or nature of which is ascertainable only by inference from the conduct of persons or from other relevant circumstances;

The 'condition' however must involve more than a mere hope or expectation,[53] and must involve some element of compulsion to acquire the second product.[54] In *SWB Family Credit Union Ltd v Parramatta Tourist Services Pty Ltd*, Northrop J said:

> It does not matter whether the condition is legally binding or not, see s 47(13)(a) … but in my opinion the condition must have some attributes of compulsion and futurity. This can be expressed in the form 'If we do this, you will (must) do that.' A condition in the nature of an obligation must be imposed upon the person dealing with the corporation. The condition to be complied with must result from something done or to be done by the corporation imposing the condition.[55]

The iPhone is sold in a disabled state, and cannot be used until it is 'activated', which can only be performed once the purchaser has entered into a contract with the Carrier. Although entering into a contract with the Carrier is not, strictly speaking, a condition of purchasing an iPhone, the iPhone is all but useless unless and until the purchaser contracts with the Carrier. There is a very real practical compulsion on the consumer to acquire mobile telephony services from the Carrier.

The availability of methods to circumvent the DRM which locks the customer into a particular carrier would be unlikely to affect this conclusion, especially given that those methods may be unlawful, would void the warranty of the phone, contravene the software licence agreement, and Apple Inc. is taking technological steps to prevent their use.

A court would be likely to infer the existence of a 'condition' in the terms suggested, based on the conduct of Apple Inc. and the technological locking of the iPhone.

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[52] *Visy Paper Pty Ltd v ACCC* (2003) 216 CLR 1, 6 (Gleeson CJ, McHugh, Gummow and Hayne JJ).
[53] *SWB Family Credit Union Ltd v Parramatta Tourist Services Pty Ltd* (1980) 32 ALR 365.
[54] Corones, above n 48, 508; cf *TPC v Tepeda Pty Ltd* (1994) ATPR 41-319.
[55] *SWB Family Credit Union Ltd v Parramatta Tourist Services Pty Ltd* (1980) 32 ALR 365, 381.

If the Carrier or Apple were also to sell an 'unlocked' version of the iPhone at a higher price,[56] this would not affect the conclusion that this behaviour would constitute third-line forcing. Section 47(6) of the *Trade Practices Act 1974* (Cth) encompasses not only supply of goods or services upon a relevant condition, but supply of goods or services *at a particular price,* or giving or allowing a discount or rebate, upon a relevant condition.

2 *Second characterisation*

Apple Inc. could argue that it is not *supplying* the iPhone on the condition that the customer acquires the Carrier's services. Rather, any condition which exists relates only to the *use* of the software on the iPhone, which is a different issue to the chattel ownership of the iPhone itself. For the reasons given above, a court would be likely to reject this argument.

If this characterisation of Apple's conduct is accepted, it would satisfy the definition of third-line forcing in ss 47(6) or 47(7). A licence to use the iPhone software, or actually permitting use of the software (by the 'activation' process) would arguably fall within the statutory definition of 'services' in s 4 of the *Trade Practices Act 1974* (Cth). Similarly, Apple Inc.'s licensing of the software, or permitting its use, would arguably fall within the statutory definition of 'supply', which includes 'provide, grant or confer.'[57]

Apple Inc.'s conduct could then be characterised as either supply of *services* (software service) on the condition that the consumer acquire mobile telephony services from the Carrier, or a refusal to supply services because the Carrier's services had not been acquired.

On either of the first or second characterisations of Apple Inc.'s conduct, to the extent that it sells or offers to sell the iPhone in these circumstances, Apple will engage in unlawful third-line forcing.

Where the iPhones are sold by the Carrier, because they are forcing the acquisition of their own services, and not the services of a third party, their conduct would constitute second line forcing or tying rather than third-line forcing.

Where the iPhones are sold by retailers other than Apple Inc. or the Carrier, the situation is less clear. Are the retailers engaging in third-line forcing, given that they merely resell the iPhones and have no role in the imposition of the technological requirement to acquire services from the Carrier? Or is Apple Inc. engaging in third-line forcing, notwithstanding the fact that it is not itself contracting with the purchaser?

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56 As is occurring in France and Germany: Tony Smith, *Orange to offer unlocked iPhones for €749,* (2007) Register Hardware <http://www.reghardware.co.uk/2007/11/28/orange_prices_up_iphone/> at 14 January 2008.

57 *Trade Practices Act 1974* (Cth) s 4.

3 *Third Characterisation*

Apple Inc. has announced that in Germany and France, it will not itself sell iPhones. Instead they will be available exclusively from their nominated carrier. Whether this is due to a smaller presence of Apple Inc. retail stores in those countries is unclear.

If Apple Inc. were to adopt this approach in Australia it may nevertheless engage in third-line forcing. The language of s 47 of the *Trade Practices Act 1974* (Cth) is not concerned with *sale*, but with *supply* of goods or services.[58] The fact that title to the iPhone (ie the physical device) is acquired from the Carrier does not exclude the possibility that Apple Inc. is providing some other goods or services to the consumer.

If, notwithstanding that title to the iPhone is acquired from the Carrier, Apple Inc. is *supplying goods* or *services* of some kind to the consumer, on the condition that mobile telephony services are acquired from the Carrier, then Apple Inc.'s conduct may still fall within s 47(6) and constitute third-line forcing.[59]

The iPhone is essentially a very small computer, in the shape of a mobile phone and having the functionality of a mobile phone and a computer combined. Like all computers, it requires software to operate.[60]

Supply, in relation to services, includes to 'provide, grant or confer.'[61] Section 4 of the *Trade Practices Act 1974* (Cth) contains a broad and inclusive definition of 'services', which includes 'rights, benefits, privileges or facilities that are … provided, granted or conferred in trade or commerce'. Whether or not computer software, or a licence to use such software, constitutes 'goods' or 'services' within the meaning of the *Trade Practices Act 1974* (Cth) has not been finally determined in Australia.[62] We think the better view is that a licence to use computer software falls within the definition of 'services', although the distinction is of no relevance for present purposes so long as it is one or the other.[63]

Is Apple Inc. supplying services – ie a licence to use the iPhone software – to the consumer? The answer lies within Apple Inc.'s own legal documents. Like most computer software, the use of the iPhone software is subject to an End User Licence

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58 See, eg *Trade Practices Act 1974* (Cth) s 47(6): 'A corporation also engages in the practice of exclusive dealing if the corporation … supplies, or offers to supply, goods or services.'

59 Similarly, if Apple Inc. refuses to supply services because the consumer has not acquired, or agreed to acquire, services from the Carrier, s 47(7) would apply.

60 If the software becomes irrecoverably corrupted, the iPhone becomes similarly useless. When Apple Inc.'s recent software update to the iPhones caused unlocked iPhones to become inoperable in this way, the term 'iBrick' was coined to describe such phones.

61 *Trade Practices Act 1974* (Cth) s 4.

62 *ASX Operations Pty Ltd v Pont Data Australia Pty Ltd (No 1)* (1990) 27 FCR 460, 468. See also *Toby Constructions Products Pty Ltd v Computa Bar (Sales) Pty Ltd* [1983] 2 NSWLR 48, in which it was held that the supply of a computer system comprising hardware and software was a supply of goods.

63 The distinction between a software licence as a supply of goods or services is of more importance in the context of implied warranties under Part V, Division 2 of the *Trade Practices Act 1974* (Cth).

Agreement or 'EULA'.[64] The EULA must be agreed to by the user before the iPhone can be activated.[65]

The EULA states in relevant part:

> **PLEASE READ THIS SOFTWARE LICENSE AGREEMENT ("LICENSE") CAREFULLY BEFORE USING YOUR iPHONE. BY USING YOUR iPHONE, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT USE THE iPHONE. IF YOU DO NOT AGREE TO THE TERMS OF THE LICENSE, YOU MAY RETURN THE iPHONE TO THE PLACE WHERE YOU OBTAINED IT FOR A REFUND.** [emphasis in original]
>
> The software (including Boot ROM code and other embedded software), documentation and any fonts that came with your iPhone, whether in read only memory, on any other media or in any other form (collectively the "**iPhone Software**") **are licensed, not sold, to you by Apple Inc.**. ("Apple") for use only under the terms of this License, and Apple reserves all rights not expressly granted to you.[66] [emphasis added]

Although there is no express provision of the EULA which compels the consumer to acquire services from the Carrier, as discussed above, a court would likely infer the existence of such a condition because of the technological locking and activation process. Further, the EULA specifically prohibits modification of the iPhone software, which would be necessary to circumvent the activation and technological locking.

We concede that this characterisation is somewhat contrived. Nonetheless, it is clear that Apple Inc. is licensing the use of the iPhone software under a contract between Apple Inc. and the consumer (the EULA) which is separate and independent of any contracts between the consumer and the Carrier. If this is a supply of goods or services, upon a relevant condition, it is arguably third-line forcing.

B *Exclusionary Provisions – s 45(2)(a)(i)*

The *Trade Practices Act 1974* (Cth) prohibits certain ‘horizontal’ contracts, arrangements or understandings between companies who are competitors, or are likely to be competitors, or who would (or would likely) be competitors but for the agreement. Such agreements are prohibited *per se* if they contain an exclusionary provision,[67] and are otherwise prohibited if a provision of the agreement has the purpose, effect, or would likely have the effect, of substantially lessening competition.[68] Giving effect to such a provision is subject to a separate prohibition.[69]

64 For a discussion of EULA's and consumer protection concerns in electronic contracts generally, see D Clapperton and S Corones, ‘Unfair Terms in “Clickwrap” and Other Electronic Contracts’ (2007) 35 *Australian Business Law Review* 152.
65 By way of a ‘clickwrap’ licence.
66 Apple, *iPHONE SOFTWARE LICENSE AGREEMENT* (2007) <http://images.apple.com/legal/sla/docs/iphone.pdf> at 17 October 2007.
67 *Trade Practices Act 1974* (Cth) s 45(2)(a)(i).
68 *Trade Practices Act 1974* (Cth) s 45(2)(a)(ii).
69 *Trade Practices Act 1974* (Cth) ss 45(2)(b)(i), (ii).

As with exclusive dealing, being able to establish a *per se* contravention is beneficial to a potential applicant, because it avoids the problematic evidentiary issues inherent in establishing that the purpose, effect, or likely effect of the impugned provision was to substantially lessen competition. Sections 45(2) and (3) of the *Trade Practices Act 1974* (Cth) provide:

> (2) A corporation shall not:
> (a) make a contract or arrangement, or arrive at an understanding, if:
> (i) the proposed contract, arrangement or understanding contains an *exclusionary provision*; or
> (ii) a provision of the proposed contract, arrangement or understanding has the purpose, or would have or be likely to have the effect, of substantially lessening competition; or
> (b) give effect to a provision of a contract, arrangement or understanding, whether the contract or arrangement was made, or the understanding was arrived at, before or after the commencement of this section, if that provision:
> (i) is an exclusionary provision; or
> (ii) has the purpose, or has or is likely to have the effect, of substantially lessening competition.
> (3) For the purposes of this section …, competition, in relation to a provision of a contract, arrangement or understanding or of a proposed contract, arrangement or understanding, means *competition in any market* in which a corporation that is a party to the contract, arrangement or understanding or would be a party to the proposed contract, arrangement or understanding, or any body corporate related to such a corporation, *supplies or acquires*, or is *likely to* supply or acquire, goods or services or *would, but for* the provision, supply or acquire, *or be likely* to supply or acquire, goods or services. [emphasis added]

'Exclusionary provision' is defined by s 4D of the *Trade Practices Act 1974* (Cth):

> (1) A provision of a contract, arrangement or understanding, or of a proposed contract, arrangement or understanding, shall be taken to be an exclusionary provision for the purposes of this Act if:
> (a) the contract or arrangement was made, or the understanding was arrived at, or the proposed contract or arrangement is to be made, or the proposed understanding is to be arrived at, between persons any 2 or more of whom are competitive with each other; and
> (b) the provision has the purpose of preventing, restricting or limiting:
> (i) the supply of goods or services to, or the acquisition of goods or services from, particular persons or classes of persons; or
> (ii) the supply of goods or services to, or the acquisition of goods or services from, particular persons or classes of persons in particular circumstances or on particular conditions;
>
> by all or any of the parties to the contract, arrangement or understanding or of the proposed parties to the proposed contract, arrangement or understanding or, if a party or proposed party is a body corporate, by a body corporate that is related to the body corporate.
> (2) A person shall be deemed to be competitive with another person for the purposes of subsection (1) if, and only if, the first-mentioned person or a body corporate that is related to that person *is*, or *is likely to be*, or, *but for* the provision of any contract, arrangement or understanding or of any proposed contract, arrangement or understanding, *would be*, or *would be likely to be*, in competition with the other person, or with a body corporate that is related to the other person, in relation to the supply or acquisition of all or any of the goods or services to which the relevant

> provision of the contract, arrangement or understanding or of the proposed contract, arrangement or understanding relates.

As is apparent from ss 45(3) and 4D(2), a threshold issue for the application of these sections to the hypothetical Apple-Carrier agreement is that Apple Inc. and the Carrier must be competitors in the relevant sense. That is, that Apple Inc. and the Carrier:

- are in fact competitors in any market;
- are likely to be competitors in any market; or
- except for the impugned term(s) of the agreement, would be competitors or would be likely to be competitors in any market.

The *Trade Practices Act 1974* (Cth) defines markets in economic terms. Section 4E of the *Trade Practices Act 1974* (Cth) provides:

> For the purposes of this Act, unless the contrary intention appears, *market* means a market in Australia and, when used in relation to any goods or services, includes a market for those goods or services and other goods or services that are substitutable for, or otherwise competitive with, the first-mentioned goods or services.

A number of possible markets suggest themselves:

- a market for mobile phone handsets;
- a market for mobile telephony services; and
- a 'cluster market' for mobile phone handsets together with mobile telephony services as a package.

It could be argued that the iPhone constitutes a separate market; this is discussed below.[70] The Carrier would compete in each of the possible markets identified above, but would Apple Inc.?

1 *Market for handsets*

If Apple Inc. sells the iPhone in Australia, it would compete in this market, although it could be argued that since the iPhones it sells are locked to the Carrier's network, Apple Inc. is not, strictly speaking, *competing* with the Carrier. If Apple does not sell the iPhone in Australia, the question then is whether it would, or would be likely to sell the iPhone in Australia, *but for* a term of the agreement with the Carrier.

Whether Apple would be *likely* to do so is a question of fact. It does not require that it be more likely than not, only that there is a 'real chance or possibility' it would occur.[71] Establishing this point would depend on the available evidence at trial, but the fact that Apple Inc. itself sells the iPhone in the US and has announced its intention to do so in the UK would support such a finding. If there is a 'real chance or possibility' that Apple would sell the iPhone in Australia if not for a term of the agreement with the Carrier, Apple and the Carrier will be deemed to be competitors within the meaning of ss 45 and 4D.

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70 See part IIIC1.

71 *News Ltd v Australian Rugby Football League Ltd* (1996) 64 FCR 410.

2 *Market for mobile telephony services*

Considering mobile telephony services in isolation from handsets, Apple Inc. does not compete in this market and is not likely to do so. The extent of Apple Inc.'s interest in the mobile telephony services market appears to be artificially restricting the choice of carrier of iPhone users.

3 *Cluster market for handsets and services*

A 'cluster market' refers to a market for a bundle of products that are technical or commercial complements and are purchased as a bundle by consumers.[72] Stated more formally, it is a market in which the transaction costs involved in providing specific goods and services *separately* would be so great as to necessitate their provision together.[73]

Ergas writes that to say that a cluster market for products A and B exists is to imply that a firm selling only A or only B would not be able to compete with one selling both A and B; either because the supply cost of producing A and B jointly is substantially below that of producing them separately, and/or because consumers incur additional costs when they purchase A and B separately as against purchasing them jointly.[74]

In the case of a potential cluster market for mobile phone handsets and mobile telephony services, there are no supply-side economies of joint production,[75] but there would be economies which result from offering a single source of supply for both handsets and telephony services. Consumers acquiring handsets and services separately would also incur higher transactional costs than if they acquired them from a single supplier,[76] and there is a substantial consumer and supplier demand for telecommunications services to be supplied as a 'bundle'.[77] Goss suggests that:

> the nature of bundled services is such that a bundle of services is more likely to be treated as forming a cluster market than a series of unbundled telecommunications services supplied to a consumer. This is the case because the transactional costs for both suppliers and consumers of, respectively, supplying and receiving the services indicate that they are more efficiently supplied as a bundle. Accordingly, a firm selling those services separately could not compete with one selling them together. The prevalence of bundled telecommunications services suggests that there will be a high incidence of situations in which cluster market analysis of competitive effects will be appropriate.[78]

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72 Corones, above n 48, [2.40]; see also Henry Ergas, *Cluster Markets: What They Are and How To Test For Them* (2002) The Wayback Machine <http://web.archive.org/web/20050623113852/http://necg.com.au/pappub/papers-ergas-cluster.PDF> at 25 October 2007.

73 A Goss, 'The *Trade Practices Act 1974* (Cth) and the Treatment of Cluster Markets in the Australian Telecommunications Industry' (2001) 25 *Melbourne University Law Review* 481, 482; see also Ergas, above n 72, 3-4.

74 Ergas, above n 72, 3.

75 As might be the case in, for example, the joint production of wool and lamb.

76 Corones, above n 48, [2.40].

77 Goss, above n 73, 492.

78 Ibid, 493.

In the context of 'land-line' telephone services, the ACCC considers that fixed line rental and local call services are part of a cluster market,[79] although Ergas believes that local, STD, and IDD services each form separate markets.[80]

If the existence of a cluster market comprising mobile phone handsets and mobile telephony services is accepted, the next question is whether Apple Inc. could be properly viewed as a competitor of the Carrier in the relevant sense, given that Apple Inc. would (or arguably, would be likely to, but for a provision of the Apple-Carrier agreement) only supply handsets?

Statements in the literature that, in economic terms, a company supplying only one element of a cluster market 'could not compete' with a company supplying all elements, mean in lay terms that they could not compete *profitably*, all other things being equal. The wording of ss 45(3) and 4D(2) do not preclude a finding that a corporation which supplies only one element of a cluster market is nonetheless a competitor of a corporation supplying all elements.

If Apple Inc. sells the iPhone in Australia, it would arguably compete in this cluster market. If Apple Inc. does not sell the iPhone in Australia, it could be argued that, but for a term of the Apple-Carrier agreement, it would be likely to do so.

4 *Exclusionary provision*

If we assume that Apple Inc. and the Carrier are competitors in the relevant sense in at least one of the above markets, the next question is whether a term of the Apple-Carrier contract, arrangement or understanding is an exclusionary provision within the meaning of s 4D. The primary purpose of the Apple-Carrier agreement would be to prevent, restrict, or limit the supply of iPhones to particular persons on particular conditions – that is, that Apple Inc. would not supply iPhones to any of the Carrier's competitors in Australia; or would not supply iPhones to the public unless they acquired the Carrier's services; or would not supply iPhones to the public at all.[81]

Provided that Apple Inc. and the Carrier are competitors within the meaning of ss 45 and 4D, the Apple-Carrier agreement will probably contain one or more exclusionary terms, with the consequence that the making of that agreement would be a *per se* contravention of s 45(2), as would giving effect to such a provision.

C *Other potential Part IV actions*

Apple's conduct may contravene other provisions of Pt IV of the *Trade Practices Act 1974* (Cth).

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79 ACCC, *Declaration of Local Telecommunications Services under Part XIC of the Trade Practices Act 1974* (July 1999) 40.

80 Ergas, above n 72, 17-18.

81 An exclusive distribution agreement would not ordinarily contravene s 45(2) unless the supplier was vertically integrated and sold at a 'retail' level, in competition with the other party.

1 *Misuse of market power – s 46(1)*

Section 46(1) of the *Trade Practices Act 1974* (Cth) deals with misuse of market power, and is historically one of the most difficult contraventions of Part IV to establish. A threshold issue is whether Apple Inc. has a substantial degree of market power. In any possible market we discuss above, Apple would not have market power. But if there is a separate market for iPhones, Apple Inc. as the manufacturer and sole source of supply would have substantial market power.

The *Trade Practices Act 1974* (Cth) defines markets in economic terms, and a market for goods or services includes any other goods or services that are *substitutable* for or otherwise competitive with the first goods or services.[82] If the iPhone is sufficiently unique in terms of its features,[83] desirability, and brand loyalty,[84] that consumers would not regard an ordinary mobile phone as a substitute for an iPhone, this would weigh strongly in favour of the existence of a separate market for the iPhone.

A starting point for determining the issue of substitutability is the SSNIP test (Small but Significant Non-transitory Increase in Price).[85] Here, the SSNIP test asks whether Apple Inc. would find it profitable to increase the price of the iPhone by 5-10% for a non-transitory period of time, say 12 months. If the price increase causes consumers who would have bought iPhones to instead by a different phone, and the reduction in sales makes the price increase unprofitable for Apple, this is a strong indicator that other phones are substitutable for the iPhone, and the iPhone does not comprise a separate market.

If, on the other hand, consumers continue to buy the iPhone at the higher price, making the price increase profitable for Apple, this is a strong indicator that other phones are not substitutable for the iPhone, and that the iPhone may constitute a separate market.
Australian courts have rejected several previous attempts to define a market in terms of a single trade marked product,[86] brand of vehicle,[87] or copyright work.[88] However, the courts have not rejected the possibility that a single brand product may constitute a separate economic market.[89]

Even if the iPhone does not constitute a separate market, it may be part of a broader market for next generation mobile phones, or 'smartphones.' At the present time, Apple may have substantial market power within such a market, but as competitors enter that

[82] *Trade Practices Act 1974* (Cth) s 4E.
[83] Apple Inc.'s own statements about the revolutionary and ground-breaking nature of the iPhone could lend support to the view that the iPhone comprises a separate market: Apple, above n 7.
[84] A single brand market may exist where the evidence supports a finding that consumers purchase a product solely in reliance upon its brand name and not in reliance upon the physical qualities of the product: CCH, *Trade Practices Commentary* [¶2-560]. Anecdotal market evidence suggests that Apple Inc. has cultivated substantial brand loyalty.
[85] Corones, above n 48, [2.25]
[86] *Mark Lyons Pty Ltd v Bursill Sportsgear Pty Ltd* (1987) 75 ALR 581.
[87] *J Ah Toy Pty Ltd v Thiess Toyota Pty Ltd* (1980) 3 ATPR ¶40-155.
[88] *Broderbund Software Inc. v Computermate Products (Australia) Pty Ltd* (1991) 22 IPR 215.
[89] *Melway Publishing Pty Ltd v Robert Hicks Pty Ltd* (2001) 205 CLR 1, 34; see also Clapperton and Corones, above n 2, 694-5; Corones, above n 1, 50-2.

market with competing devices, that position might erode to the point where they lack substantial market power and a contravention of s 46(1) would no longer be possible.

The existence of Apple Inc.'s substantial market power would need to be assessed over a period of years rather than months and would depend, in particular, on the existence of barriers to entry.[90] Apple Inc.'s intellectual property in the iPhone, such as the copyright in the computer software may not confer a substantial degree of market power. There is growing recognition that traditional market definition procedure is flawed in innovative industries because it fails to take account of technological change and its effects on future competition and market power.[91]

Assuming that a separate market for iPhones can be established, it would also need to be established that Apple Inc. had taken advantage of its substantial market power, and did so for a purpose proscribed by s 46(1).[92]

2 *Exclusive dealing other than third-line forcing – s 47(2)*

Regardless of whether Apple Inc. sells the iPhone in Australia or not, the Carrier may engage in exclusive dealing (other than third-line forcing) under s 47(2) of the *Trade Practices Act 1974* (Cth), which provides in part:

> (2) A corporation engages in the practice of exclusive dealing if the corporation:
> (a) supplies, or offers to supply, goods or services;
> …
> on the condition that the person to whom the corporation supplies, or offers or proposes to supply, the goods or services or, if that person is a body corporate, a body corporate related to that body corporate:
> (d) will not, or will not except to a limited extent, acquire goods or services, or goods or services of a particular kind or description, directly or indirectly from a competitor of the corporation or from a competitor of a body corporate related to the corporation;

Here, the Carrier would supply the iPhone on a condition that the purchaser would not, or would not except to a limited extent, acquire mobile phone services from a competitor of the Carrier.

However, this section is subject to a further requirement that the Carrier's actions must have the purpose, effect or likely effect of substantially lessening competition.[93] Whether it is likely to have that effect or not would be a question of fact and dependant on the size of the market, the number of iPhones sold, and other factors.

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[90] Corones, above n 48, [2.190].

[91] See R Gilbert and S Sunshine, 'Incorporating Dynamic Efficiency concerns in Merger analysis – The Use of Innovative Markets' (1995) 63 *Antitrust Law Journal* 569; and R Posner, 'Antitrust in the New Economy' (2001) 68 *Antitrust Law Journal* 925.

[92] The proscribed purposes are eliminating or substantially damaging a competitor of the corporation in that or any other market, preventing the entry of a person into that or any other market, and deterring or preventing a person from engaging in competitive conduct in that or any other market. See generally Corones, above n 1, 57-64.

[93] *Trade Practices Act 1974* (Cth) s 47(10).

But the *purpose* of the Carrier in distributing the locked iPhones would arguably be to substantially lessen competition, by ensuring that any consumers using those iPhones could not use them with the Carrier's competitors. A court can infer purpose from the nature of the arrangement the circumstances in which it was made, and its likely effect.[94] The purpose of substantially lessening competition need not be the *sole* purpose of the Carrier, so long as it was one of their purposes, and was a substantial or operative purpose.[95]

If it can be established that a substantial or operative purpose of the Carrier was to lessen competition in the cluster market for mobile phones and services, or the market for mobile telephony services, by preventing iPhone purchasers from using the services of the Carrier's competitors, the Carrier will have engaged in exclusive dealing within the meaning of s 47(2), which is prohibited by s 47(1).

D *Exception for the licensing of intellectual property – s 51(3)*

Intellectual property laws are pro-competitive because they provide protection for and certainty of investment, and avoid problems associated with free-riding on intellectual property developed by others. Accordingly, s 51(3) of the *Trade Practices Act 1974* (Cth)provides a statutory exemption from most provisions of Part IV of the *Trade Practices Act 1974* (Cth),[96] for certain conditions in licences or assignments of certain IP rights, including copyright. Section 51(3) provides in relevant part:

> (3) A contravention of a provision of this Part other than section 46, 46A or 48 shall not be taken to have been committed by reason of:
> (a) the imposing of, or giving effect to, a condition of:
> (i) a licence granted by the proprietor, licensee or owner of … a copyright …;
> …
> to the extent that the condition **relates to**: [emphasis added]
> …
> (v) the work or other subject matter in which the copyright subsists;

The scope of s 51(3) is uncertain because of ambiguity surrounding the 'relates to' requirement.[97] Section 51(3) has been judicially considered in only one case, which involved a 'best endeavours' clause in a licence to use a patented process to construct electricity poles.[98] In that case, while a majority of the High Court did not find it necessary to consider s 51(3), Mason and Wilson JJ held that the best endeavours clause did 'relate to' articles made by use of the patented invention,[99] and fell within the s 51(3) exemption.

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94 *Dowling v Dalgety Australia Ltd* (1992) 34 FCR 109.
95 *Trade Practices Act 1974* (Cth) s 4F(1)(b).
96 Sections 46 and 46A (misuse of market power) and 48 (retail price maintenance) of the *Trade Practices Act 1974* (Cth) are unaffected by s 51(3).
97 NCC, *Review of Sections 51(2) and 51(3) of the Trade Practices Act 1974*: *Final Report* (1999) 15-23.
98 *Transfield Pty Ltd v Arlo International Ltd* (1980) 144 CLR 83.
99 Where the subject of the licence is a patent, the condition must 'relate to … the invention to which the patent or application for a patent relates or articles made by the use of that invention': *Trade Practices Act 1974* (Cth) s 51(3)(a)(iii).

In his judgment, Mason J stated:

> In bridging the different policies of the Patents Act and the Trade Practices Act, s 51(3) recognizes that a patentee is justly entitled to impose conditions on the granting of a licence or assignment of a patent in order to protect the patentee's legal monopoly. … Section 51(3) determines the scope of restrictions the patentee may properly impose on the use of the patent. Conditions which seek to gain advantages collateral to the patent are not covered by s 51(3).[100]

The proper scope of 'relates to' within s 51(3) is still a matter of some controversy. Section 51(3) was reviewed by the National Competition Council ('NCC') in 1999,[101] and the review identified a range of alternative views on the meaning of the term.[102]

If we accept the statement of Mason J that s 51(3) permits an intellectual property owner to impose licensing conditions to protect the intellectual property owner's legal monopoly, do the conditions imposed by Apple Inc. meet that test? The 'legal monopoly' of a copyright holder is the exclusive rights created by the *Copyright Act 1968* (Cth). In the case of computer software,[103] those rights are set out in s 31(1) of the *Copyright Act 1968* (Cth) and include the exclusive right to reproduce the software in material form.

Significantly, the right to control the *use of* computer software is not an exclusive right of the copyright owner, nor is the right to control the use of a device in which the software is embodied.

It seems likely in those circumstances that an attempt by Apple Inc. to control which mobile carrier the iPhones can be used with would be an attempt to seek a collateral advantage to their copyright, and would not be protected by s 51(3). The Carrier could not rely on s 51(3), as they are not the licensee of any relevant intellectual property.

1 *Commentary on s 51(3)*

Section 51(3) has never been judicially considered as it applies to copyright. Professor Ricketson has argued that flaws in the drafting of s 51(3) render it 'virtually meaningless' as it applies to copyright.[104] Such a literal construction of s 51(3) has been criticised,[105] but the vagueness of the 'relates to' requirement has left the scope of s 51(3) uncertain.

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100 *Transfield Pty Ltd v Arlo International Ltd* (1980) 144 CLR 83, 102-3.
101 NCC, above n 97, 186.
102 Ibid 184; see also Clapperton and Corones, above n 2, 709.
103 Computer software is protected as a literary work: *Copyright Act 1968* (Cth) s 10.
104 Section 51(3)(a)(v) requires that the conditions must 'relate to … the work or other subject matter in which the copyright subsists.' Copyright does not subsist in reproductions or copies, but only in the works or other subject matter in their first material form. Ricketson suggests that s 51(3) would therefore be inapplicable to conditions relating to subsequent copies of the work: S Ricketson and C Creswell, *The Law of Intellectual Property: Copyright, Designs and Confidential Information* (Lawbook Co, vol 2) 24, [15.190].
105 Trade Practices Commission, *Application of the Trade Practices Act to Intellectual Property* (1991) 12.

In 2000, the Intellectual Property and Competition Review Committee ('IPCRC') considered the recommendations of the NCC review, and stated that:

> there are flaws in the drafting of s 51(3) that under any scenario would require amendment. Leaving aside drafting considerations, the Committee believes that the uncertainty surrounding the scope of the section, and the possibility that it may exempt virtually all agreements which touch on IP from relevant sections of the Trade Practices Act, make the current section inappropriate.

In 2001, the Government accepted the recommendations of the IPCRC in part, and announced that it intended to overhaul s 51(3), with the effect that intellectual property licensing would be subject to more provisions of Part IV than is currently the case.[106] Yet, more than six years later, the legislation to give effect to this announcement has not been introduced into Parliament, and s 51(3) remains unchanged, in generally the same terms as it stood in 1977.[107]

Times, technology, and markets have changed greatly since the 1970s, as has intellectual property. Computers as we know them today did not exist when the *Trade Practices Act 1974* (Cth) was introduced. The computer software that existed in the 1970s was not protected by copyright; copyright has only subsisted in computer software since 1984 amendments to the *Copyright Act 1968* (Cth).[108]

The licensing and assignment of intellectual property in the 1970s was, generally, an exercise between businesses. In modern times, computers of some description have found their way into many consumer goods and every-day items of commerce, including things such as mobile phones, electronic fuel injection systems in motor vehicles, and even garage door openers. All of these computers run software which is protected by copyright.

This means that the actual licensing of intellectual property now reaches down the supply chain as far as the consumer. Sophisticated modern technology also allows the technological imposition of prima facie anti-competitive restraints on consumers.

In much the same way as Apple Inc. can design an iPhone which will only work with AT&T, it could be possible for General Motors Holden to produce a car whose software-driven fuel injection system would only allow the car to run on Shell petrol. It would be absurd to allow third-line forcing of petrol in a modern car, because the third-line forcing was enforced by copyright software, but disallow third-line forcing of petrol in an older car, without fuel injection. Third-line forcing in relation to consumer goods should not get a 'free pass' from Australia's competition laws simply because the

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106 Australian Government, *Government Response to Intellectual Property and Competition Review Recommendations* (2001) 12 <http://www.ipaustralia.gov.au/pdfs/general/response1.PDF>. For a consideration of the current s 51(3) and the likely impact of the changes proposed by the IPCRC see: I Eagles and L Longdin, 'Competition in Information and Computer Technology Markets: Intellectual Property Licensing and Section 51(3) of the Trade Practices Act 1974' (2003) 3 *Queensland University of Technology Law and Justice Journal* 28.

107 Except for minor changes, s 51(3) has not been amended since the *Trade Practices Amendment Act 1977* (Cth).

108 *Copyright Amendment Act 1984* (Cth) s 3.

supplier imposes its anti-competitive restraint by means of copyright software, rather than a condition of a contract.[109]

In a time where the anti-competitive use of computer software and other modern technology seems to be on the rise, s 51(3) is in need of a major overhaul to ensure it does not give an undeserved shield to anti-competitive and anti-consumer behaviour.

IV REMEDIES

The Federal Court can grant an injunction in such terms as the Court determines to be appropriate, where a person is engaging or proposing to engage in conduct that constitutes or would constitute a contravention or attempted contravention of any of the provisions of Part IV described above.[110] Such an injunction may be sought by any person,[111] but as a practical matter is only likely to be sought by the ACCC or by a competitor of the Carrier. The ACCC may also seek the imposition of a pecuniary penalty on Apple Inc. and/or the Carrier.[112]

The ACCC has additional powers to deal with allegedly anti-competitive conduct engaged in by the Carrier, under Part XIB of the *Trade Practices Act 1974* (Cth).[113] The markets we discuss above would all be telecommunications markets within the meaning of s 151AF of the *Trade Practices Act 1974* (Cth), because they involve the supply or acquisition of carriage services,[114] or goods for use in connection with a carriage service. Our analysis above suggests that the Carrier may contravene ss 45(2) and 47(2) of the *Trade Practices Act 1974* (Cth), which, because the contravening conduct relates to a telecommunications market, would constitute 'anti-competitive conduct' within the meaning of s 151AJ(3) of the *Trade Practices Act 1974* (Cth).

If the ACCC has reason to believe that the Carrier is engaging in such anti-competitive conduct, the ACCC may issue the Carrier with a 'Part A competition notice',[115] which has the effect of exposing the Carrier to significant pecuniary penalties if they continue such conduct while the notice is in force. The ACCC may also issue the carrier with a 'Part B competition notice',[116] which would provide considerable assistance to any competitor of the Carrier wishing to litigate the contravention, as the Part B competition notice is prima-facie evidence of the matters set out in the notice.[117]

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109 See Eagles and Longdin, above n 106, 43-4.
110 *Trade Practices Act 1974* (Cth) s 80(1)(a)(i).
111 *Trade Practices Act 1974* (Cth) s 80(1).
112 *Trade Practices Act 1974* (Cth) ss 76, 77.
113 See generally Corones, above n 48, Ch 13
114 Mobile telephony services are a 'carriage service' within the meaning of the *Telecommunications Act 1997* (Cth).
115 *Trade Practices Act 1974* (Cth) s 151AKA.
116 *Trade Practices Act 1974* (Cth) s 151AL.
117 *Trade Practices Act 1974* (Cth) s 151AN(1). We concede that the issuing of a Part B competition notice for this type of behavior would be unprecedented, the ACCC having never issued a Part B competition notice, even in cases of much more serious anti-competitive behavior.

V CONCLUSION

While DRM and other forms of technological 'locks' may have substantial pro-competitive benefits, where they are used to prevent the infringement of copyright, such technology can be used to achieve anti-competitive ends. Thus far, the anti-competitive abuses of DRM have mainly involved locking in consumers, and locking out competitors. It is probably too soon to conclude whether Australia's competition laws are adequate to deal with anti-competitive abuses of DRM.[118]

The Apple Inc. iPhone represents a significant change in this type behaviour – for the first time, a manufacturer is using DRM and technological 'locks' to force the use of goods or services other than their own.

On the available evidence, Apple Inc.'s behaviour has no pro-competitive justification, and serves merely to extract monopoly rents from customers who are compelled to use AT&T's services. The pending antitrust actions against Apple Inc. in the US will test the legality of its conduct in that country, with the battle likely to be framed in terms of Apple Inc.'s freedom to innovate and market its products as it sees fit, versus the rights of the consumer to choose their own service provider at a cheaper price.

Our analysis of Apple Inc.'s potential future conduct under Australia's competition laws demonstrates that it may be unlawful. Australia's competition laws may be uniquely suited to preventing this type of anti-competitive technological tying – because they prohibit third-line forcing *per se*, they greatly simplify the task of seeking redress for this behaviour through the courts. In addition, the Notice Procedure under Part XIB of the *Trade Practices Act 1974* (Cth) may facilitate enforcement by the ACCC.

Time will tell whether we have entered a new age of anti-competitive use of technology, and whether current competition laws in Australia and elsewhere are up to the task of preventing it.

118 Clapperton and Corones, above n 2.