

DIVIDED PERFORMANCE OF PATENTED METHODS IN AUSTRALIA: A CALL TO CODIFY PROCURED INFRINGEMENT

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The US case Akamai Technologies Inc v Limelight Networks Inc brought the patent world's attention to the issue of if and how a patentee may enforce a method claim against a competitor who performs some of the steps in the method but leaves other steps to be performed by arms-length clients – a scenario known as divided performance. The case raised the possibility that divided performance effectively enables a competitor to use a patented method – yet avoid infringement. This article finds that no Australian patent infringement mechanism clearly creates liability for divided performance; however, it also reveals that the seldom invoked, common law mechanism known as procured infringement plausibly does. As a result, this article argues that procured infringement should be codified in the Patents Act 1990 (Cth) to resolve ambiguity surrounding whether it creates liability, thereby generating certainty for the myriad stakeholders who use the patent system.

I INTRODUCTION

The primary rationale for patent systems is that they incentivise innovation by creating intangible property rights in inventions.¹ It follows, that if the

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1 Two common explanations of how patent law achieves this are: (i) by overcoming free riding (see Joshua S Gans, Philip L Williams and David Briggs, 'Intellectual Property Rights: A Grant of Monopoly or an Aid to Competition?' (2004) 37 *The Australian Economic Review* 436, 437–8; Intellectual Property and Competition Review Committee, *Review of Intellectual Property Legislation under the Competition Principles Agreement* (Final Report, IP Australia, September 2000) 22–4) and (ii) by avoiding 'a tragedy

exclusivity provided by a patent is unenforceable, or if there is uncertainty about whether it is enforceable, then the value of such a patent may be eroded. This article investigates one such area of uncertainty related to ‘interactive claims’,² a term used to describe the performance of method claims by two or more distinct parties.³ More specifically, this article focuses on the performance of interactive claims by parties that are in arms-length relationships, and in which one party is not obliged to perform any steps in the patented method. This article refers to the performance of method claims by parties in this type of relationship as ‘divided performance’.⁴

The recent US Supreme Court decision *Akamai Technologies Inc v Limelight Networks Inc* (‘*Akamai*’)⁵ moved the issue of divided performance into the global spotlight. *Akamai* and its companion decision *McKesson Technology v Epic Systems* (‘*McKesson*’),⁶ which at one stage were heard together before the *en banc* US Court of Appeals for the Federal Circuit (‘Federal Circuit’), both concerned patented methods related to internet-mediated communication.⁷ In the decision history of these cases, the courts have explored the boundaries of when direct infringement⁸ and induced infringement⁹ will create liability for divided performance. This history includes the Federal Circuit and the Supreme

of the commons’ (Edmund W Kitch, ‘The Nature and Function of the Patent System’ (1977) 20 *Journal of Law and Economics* 265). These two justifications are briefly discussed in Part IV of this article. It should also be noted that commentators have provided various other justifications for patent law too. See, eg, by signalling: Clarisa Long, ‘Patent Signals’ (2002) 69 *The University of Chicago Law Review* 625; by encouraging disclosure of inventions: William M Landes and Richard A Posner, *The Economic Structure of Intellectual Property Law* (Harvard University Press, 2003) 326–33; by enabling private ordering: F Scott Kieff and Troy A Paredes, ‘Engineering a Deal: Toward a Private Ordering Solution to the Anticommons Problem’ (2007) 48 *Boston College Law Review* 111; Henry E Smith, ‘Intellectual Property as Property: Delineating Entitlements in Information’ (2007) 116 *Yale Law Journal* 1742; by encouraging patent races: Mark A Lemley, ‘The Myth of the Sole Inventor’ (2012) 110 *Michigan Law Review* 709; and through ‘expressive incentives’: Jeanne C Fromer, ‘Expressive Incentives in Intellectual Property’ (2012) 98 *Virginia Law Review* 1745.

2 Also known as ‘multi-user’, ‘divided’, or ‘collaborative’ claims: see, eg, Mark A Lemley et al, ‘Divided Infringement Claims’ (2005) 33 *American Intellectual Property Law Association Quarterly Journal* 255, 256. It should be noted, however, that Lemley et al use these terms to describe claims that can *only* be performed by separate parties. Whereas in Ann L Monotti, ‘Liability for Joint Infringement of a Method Patent under Australian Law’ (2013) 35 *European Intellectual Property Review* 318, 318, 323, the author uses the term in a similar manner to its use in this article.

3 Monotti, ‘Liability for Joint Infringement’, above n 2, 318. Monotti does not specifically define the term ‘interactive claims’, however, this definition is implicit in her commentary.

4 A similar nomenclature was adopted in Joshua P Larsen, ‘Liability for Divided Performance of Process Claims after *BMC Resources Inc v Paymentech LP*’ (2008) 19 *DePaul Journal of Art Technology and Intellectual Property Law* 41, 42. Some articles have used the term ‘divided infringement’ to refer to performance of a patented method by parties in arms-length relationships: see, eg, Sean Africk, ‘Induced to Infringe: Divided Patent Infringement in Light of the *Akamai* Ruling’ (2014) 14 *Nevada Law Journal* 620, 620–2. However, because it is not unequivocally established that ‘divided performance’ should give rise to infringement liability, this article uses the term ‘divided performance’.

5 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111 (2014). To appreciate the contribution the invention in *Akamai* made to telecommunications, see Ben Aiken, ‘Eliminating the Single-Entity Rule in Joint Infringement Cases: Liability for the Last Step’ (2015) 101 *Virginia Law Review* 193, 193–5.

6 *McKesson Technologies Inc v Epic Systems Corp*, 98 USPQ 2d (BNA) 1281 (Fed Cir, 2011).

7 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1306 (Fed Cir, 2012).

8 Under 35 USC § 271(a).

9 Under 35 USC § 271(b).

Court offering starkly different views on patent infringement and, as a result, the Supreme Court criticising the Federal Circuit for fundamentally misunderstanding what it means to infringe a patented method.¹⁰ Although infringement was eventually found in *Akamai* (*McKesson* settled), this only occurred after seven years of litigation, several courts finding no infringement had occurred, and the reformulation of an aspect of direct infringement.

The contentious nature of the law applicable to divided performance raises the possibility that parties can arrange their conduct to take advantage of patented methods without infringing them. The defendant in *Akamai*, an internet-orientated service provider, performed many of the steps in a patented method for distributing website content but left other steps for its clients to perform. Part II of this article dissects the decision history of *Akamai* and *McKesson*. This dissection outlines the key aspects of US law and how divided performance raises enforcement issues for interactive claims, including claims to diverse technologies such as health-related diagnostics.

Part III of this article assesses whether the factual scenarios from either case might give rise to infringement liability in Australia. This assessment builds on a related review undertaken by Professor Ann Monotti.¹¹ A diverse range of infringement causes of action are available to patent holders in Australia, yet this assessment identifies, in contrast to Monotti's review, specific legal or factual impediments to them all – except for procured infringement.¹² The conclusion here, though, is not that procured infringement clearly creates liability, but that it *plausibly* could – ambiguity surrounds whether the action is applicable to divided performance.

Part IV adopts a policy-orientated perspective and considers whether the factual scenarios from *Akamai* and *McKesson* should constitute infringement. This analysis is not as simple as one may first think; various commentators have argued that it is unnecessary to extend infringement liability to divided performance. Furthermore, judges have suggested that if liability is extended to divided performance, it may open the patent system up to abuse. Despite these concerns, this part of the article finds that such cases should constitute infringement in Australia. Finally, to both resolve the ambiguity about whether procured infringement is applicable to divided performance and to create certainty for the myriad stakeholders who use the patent system, this article recommends that procured infringement be codified in the *Patents Act 1990* (Cth) ('the *Patents Act*'), specifying that it applies to divided performance.

10 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2117 (2014).

11 See generally Monotti, 'Liability for Joint Infringement', above n 2.

12 *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* (1999) 164 ALR 239, 258–9; *Danisco AS v Novozymes AS [No 2]* (2011) 91 IPR 209, 244–6; *Damorgold Pty Ltd v JAI Products Pty Ltd* (2014) 105 IPR 60, 72 (Middleton J).

II AKAMAI AND MCKESSON: BOUNDARIES OF DIRECT AND INDIRECT PATENT INFRINGEMENT

Before describing the facts and reasoning in *Akamai* and *McKesson*, it is useful to outline some basic aspects of infringement law in the United States of America ('the US'). Under 35 USC § 271(a), direct infringement occurs when a party, without authority, makes or uses, offers to sell or sells a patented invention.¹³ With regard to 'using' patented methods, a requirement of US direct infringement law is that all the steps of a method claim must be performed by one party – this requirement is commonly known as the 'single entity rule'.¹⁴ This is clearly a problem for proving direct infringement when divided performance occurs, but US law allows actions of a second party to be attributed to a first party if the first party 'directs or controls' the conduct of the second¹⁵ – this is commonly known as 'joint infringement' in the US.¹⁶ What conduct satisfies the 'direction or control' test was examined in the decision histories of *Akamai* and *McKesson*.

In addition to direct infringement, indirect infringement can arise in the US via 35 USC §§ 271(b) and (c).¹⁷ As alluded to above, litigation in *Akamai* and *McKesson* concerned induced infringement under § 271(b). The induced infringement provision is quite short; it states '[w]hoever actively induces infringement of a patent shall be liable as an infringer'.¹⁸ Decisions have held that induced infringement will be found when it is proved that an 'alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement'.¹⁹ As this passage indicates, induced infringement is not a strict liability offence,²⁰ it must be proved that the alleged infringer knew (or was wilfully blind to) the fact that the induced conduct would be infringing.²¹ The decisions in *Akamai* and *McKesson*, however, did not specifically consider this knowledge element or whether the alleged infringers' conduct constituted inducement. Rather, the decisions primarily concerned whether direct infringement must be proved as a prerequisite for induced infringement.

13 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2115–17 (2014).

14 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1305–6, 1318 (Fed Cir, 2012).

15 *Akamai Technologies Inc v Limelight Networks Inc*, 797 F 3d 1020, 1022 (Fed Cir, 2015).

16 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 96, 117–19 (D Mass, 2009); *Muniauction Inc v Thomson Corporation*, 532 F 3d 1318, 1328 (Fed Cir, 2008); for a brief history of the 'control or direction' test, see Ken Hobday, 'The Incredibly Ever-Shrinking Theory of Joint Infringement: Multi-actor Method Claims' (2009) 38 *Capital University Law Review* 137, 165–84.

17 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2116–17 (2014).

18 35 USC § 271(b).

19 *Minnesota Mining & Manufacturing Company v Chemque Inc*, 303 F 3d 1294, 1304–5 (Fed Cir, 2002), affd *DSU Medical Corp v JMS Co Ltd*, 471 F 3d 1293, 1306 (Fed Cir, 2006); *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1308 (Fed Cir, 2012).

20 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1307–8 (Fed Cir, 2012).

21 *Global-Tech Appliances Inc v SEB SA*, 131 S Ct 2060, 2070 (2011).

A *Akamai*

There are a few aspects of internet technology that need to be outlined to assist in understanding the patent in *Akamai*. In one of the basic setups for a website, a content provider arranges a computer server to host their website's content as well as other telecommunication technology to distribute it. Typical website content includes text as well as other 'page objects' such as movies and photos. A common problem associated with such a setup is that if people viewing the site are geographically distant from the content provider's server or a large number of users want to access the site concurrently, they may experience slow browsing due to transmission times and congestion, particularly when page objects with large file sizes are viewed.²² To help resolve this problem, content providers often use third-party supplied 'content delivery services', which consist of globally networked computer servers. Together, these servers are known as a 'content delivery network' ('CDN').²³

The patent in *Akamai* claimed various methods and systems for organising CDNs. The two independent method claims asserted in the case both consisted of four steps,²⁴ and were directed to replicating page objects on CDNs and redirecting viewer's requests for those objects to particular CDN servers.²⁵ There is some further technical detail to the invention, but what it effectively consists of is a system for distributing page objects on CDN servers around the world so that when a user views a webpage and its associated page objects, the objects that have been distributed on the CDN will be delivered from a server that is proximate to the user, thereby increasing browsing speeds.²⁶ The step in both claims that was relevant to divided performance is known as 'tagging', which refers to modifying links to page objects that were to be located on the CDN.²⁷

In *Akamai*, the patentee operated a CDN and the defendant directly competed with its own CDN.²⁸ Although the Supreme Court decision in this case concerned induced infringement, at first instance only direct infringement was argued.²⁹ Throughout the litigation, an undisputed fact was that the defendant did not perform every step of the claims;³⁰ in particular, it did not perform any tagging. Instead, the defendant provided information to its clients instructing them how to do it.³¹ This was pivotal because, as outlined above, direct infringement can only be found if a single entity performs all the steps of a method claim. Thus,

22 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 96 (D Mass, 2009).

23 *Ibid.*

24 *Ibid* 97.

25 *Ibid.*

26 *Ibid* 96–7.

27 *Ibid* 97–8. One of the claims in issue, claim 19, also included the step of 'serving' a website's content from a content provider's domain. According to the claim, this is performed by the defendant's clients, thus this step is also performed in a divided fashion. However, for simplicity, this step will not be discussed in this article because it adds unnecessary complexity.

28 *Ibid* 96.

29 See generally *ibid.*

30 *Ibid* 116–17; *Akamai Technologies Inc v Limelight Networks Inc*, 629 F 3d 1311, 1305–7 (Fed Cir, 2011); *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2115 (2014).

31 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 116–17 (D Mass, 2009).

although the defendant did not itself perform the step of tagging, the patentee argued that performance of the step could be attributed to the defendant because it ‘directed or controlled’ the tagging of its clients.³² At first instance, a jury was asked to consider whether the defendant ‘directed or controlled’ the tagging by its clients.³³ The jury instructions specified that the test would be satisfied if the clients were ‘acting’ for the defendant.³⁴ In April 2009, the jury found infringement and awarded the patentee US\$45.5 million in damages.³⁵

Shortly after the jury decision, the Federal Circuit case of *Muniauction Inc v Thomson Corporation*³⁶ was decided, shedding further light on the types of conduct that satisfy the ‘direction or control’ test. The patent in this case related to a method of auctioning bonds online,³⁷ and included the step of inputting data associated with a bid on a bidder’s computer.³⁸ The defendant operated an internet-mediated process that performed many of the steps in the patent,³⁹ but the defendant did not perform the step of inputting data on bidders’ computers – this was performed by the bidders.⁴⁰ Similar to *Akamai*, a key issue before the Court was whether the actions of the bidder could be attributed to the defendant, so it could be said that the defendant performed all the steps in the claim.⁴¹ On this point, the Federal Circuit referred to *BMC Resources Inc v Paymentech LP*⁴² in which it was held that the ‘control or direction’ test is only satisfied when conduct is performed on ‘behalf’ of the defendant.⁴³ The Court in *Muniauction Inc v Thomson Corporation* continued the line of reasoning from *BMC Resources Inc v Paymentech LP* and stated that mere ‘arms-length cooperation’ will not satisfy the ‘control or direction’ test.⁴⁴ Accordingly, the Court held that controlling access to the bidding system and instructing bidders on how to use its system was not sufficient for infringement because the bidder ultimately chose whether to insert the information and to make a bid.⁴⁵

On the basis of *Muniauction Inc v Thomson Corporation*, the defendant in *Akamai* applied to have the trial decision reconsidered.⁴⁶ To succeed in this application, the defendant had to prove that the jury did not have a sufficient evidentiary basis to reach the decision it made.⁴⁷ This meant that the defendant

32 Lemley et al, above n 2, 256; *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2115 (2014).

33 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 118–19 (D Mass, 2009).

34 *Ibid* 118.

35 *Ibid* 95.

36 *Muniauction Inc v Thomson Corporation*, 532 F 3d 1318 (Fed Cir, 2008).

37 *Ibid* 1321.

38 *Ibid* 1322.

39 *Ibid* 1328–9.

40 *Ibid* 1328.

41 *Ibid* 1329.

42 *BMC Resources Inc v Paymentech LP*, 498 F 3d 1373 (Fed Cir, 2007).

43 *Muniauction Inc v Thomson Corporation*, 532 F 3d 1318, 1329–30 (Fed Cir, 2008), *affd BMC Resources Inc v Paymentech LP*, 498 F 3d 1373, 1379–81 (Fed Cir, 2007).

44 *Muniauction Inc v Thomson Corporation*, 532 F 3d 1318, 1329 (Fed Cir, 2008), *affd BMC Resources Inc v Paymentech LP*, 498 F 3d 1373, 1371 (Fed Cir, 2007).

45 *Muniauction Inc v Thomson Corporation*, 532 F 3d 1318, 1330 (Fed Cir, 2008).

46 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 119 (D Mass, 2009).

47 *Ibid*.

had to prove that there was no substantial evidence that it ‘directed or controlled’ the tagging of its clients.⁴⁸ On reconsideration, Zobel J found that the contract between the defendant and its clients was a result of standard arms-length negotiation and did not compel the clients to perform the tagging on the defendant’s behalf.⁴⁹ Thus, her Honour found that the defendant’s clients’ tagging could not be attributed to the defendant⁵⁰ and, therefore, the defendant did not infringe the patent.⁵¹ On appeal, Zobel J’s decision was unanimously affirmed.⁵² Justice Linn, writing on behalf of the Court, emphasised the obligation facet of the ‘control or direction’ test, finding that although the defendant’s clients were given instructions and tools to complete tagging, since it was performed at the clients’ discretion, performance was not on the defendant’s behalf.⁵³

At the *en banc* appeal, the cases of *Akamai* and *McKesson* were heard together. Thus, before analysing this decision, it is necessary to outline the initial Federal Circuit appeal in *McKesson*.

B *McKesson*

The patent in *McKesson* concerned methods of online communication between healthcare providers and patients.⁵⁴ The invention included automatically establishing a personalised webpage for patients, which contained details such as the patients’ medical records and treatment details. Although these characteristics were important, the invention’s primary advantage was that the website allowed for communication between patients and healthcare providers to facilitate appointments, prescription refills and callbacks.⁵⁵ The facts in *McKesson* included a type of divided performance. However, a difference between the divided performance in *McKesson* compared to *Akamai* was that the defendant in *McKesson* did not itself perform any of the steps in the patented method; rather, the defendant in *McKesson* supplied software to healthcare providers who performed many of the steps, but relied on patients to perform the first step of initiating communication with healthcare providers.⁵⁶

In *McKesson*, induced infringement was the primary infringement cause of action argued.⁵⁷ The patentee argued that healthcare providers were induced to infringe the patent by the defendant. To account for the fact that the healthcare providers’ patients performed a step in the method claim, the patentee argued that performance of this step could be attributed to the healthcare providers because they ‘directed or controlled’ the act.⁵⁸ Justice Linn, who wrote the opinion for the

48 Ibid.

49 Ibid 122.

50 Ibid.

51 Ibid 123.

52 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1311, 1322 (Fed Cir, 2011).

53 Ibid 1320–22.

54 *McKesson Technologies Inc v Epic Systems Corporation*, 98 USPQ 2d (BNA) 1281 [2] (Fed Cir, 2011).

55 Ibid.

56 Ibid 1282 [5].

57 Ibid 1283 [7].

58 Ibid 1282 [5].

Court (and with whom Bryson J agreed),⁵⁹ held that direct infringement was a prerequisite for induced infringement.⁶⁰ Thus, before deciding whether healthcare providers were induced by the defendant, her Honour had to decide whether direct infringement actually took place.⁶¹ On the basis of *BMC Resources Inc v Paymentech LP* and *Muniauction Inc v Thomson Corporation*, her Honour found that the relationships between healthcare providers and patients, either via contract or the doctor–patient relationship, were not sufficient to oblige patients to perform the step of initiating communication on behalf of the healthcare providers; the patients did it of their own volition.⁶²

During the joint hearing of these cases before the *en banc* Federal Circuit, argument was presented concerning both direct and induced infringement.⁶³ Despite hearing arguments on both infringement mechanisms, the majority decision only addressed induced infringement.⁶⁴ In contrast to Justice Linn’s initial Federal Circuit decision in *McKesson*, the majority held that direct infringement by one entity is not a prerequisite for induced infringement.⁶⁵ Furthermore, the majority held that induced performance of a method could be found even when the steps are performed by separate parties, provided performance of the steps was by either the defendant or parties operating under the defendant’s inducement.⁶⁶ This meant that when proving induced infringement, the issue of whether a party ‘directed or controlled’ the actions of others was irrelevant.⁶⁷

In reaching this conclusion, the majority reviewed applicable case law and legislation but found neither binding.⁶⁸ Instead, the majority found patent policy instructive. Their Honours stated that ‘there is no reason to immunize the inducer from liability for indirect infringement simply because the parties have structured their conduct so that no single defendant has committed all the acts necessary ... for direct infringement’.⁶⁹ Their Honours also stated:

It would be a bizarre result to hold someone liable for inducing another to perform all of the steps of a method claim but to hold harmless one who goes further by actually performing some of the steps himself. The party who actually participates in performing the infringing method is, if anything, more culpable than one who does not perform any steps.⁷⁰

Ultimately, the majority reasoned that in the context of induced infringement, the single entity requirement ‘invites evasion of the principles of patent infringement and serves no policy-based purpose’.⁷¹ The majority did not,

59 Ibid 1285 [15].

60 Ibid 1282 [7].

61 Ibid.

62 Ibid 1284 [10]–[11].

63 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1306 (Fed Cir, 2012).

64 Ibid 1306–7; 35 USC § 271(a).

65 Ibid 1307.

66 Ibid 1307–9.

67 Ibid 1316–17.

68 Ibid 1307–18.

69 Ibid 1309.

70 Ibid.

71 Ibid 1315.

however, evaluate whether the defendants' clients were acting under inducement. Rather, their Honours remanded both cases.⁷²

The cases were not re-heard on inducement because the *en banc* decision was appealed to the Supreme Court. The Supreme Court agreed to hear *Akamai* but not *McKesson*,⁷³ and, at this stage, *McKesson* was settled.⁷⁴ Justice Alito authored the Supreme Court's unanimous judgment.⁷⁵ In a six-page decision, his Honour overruled the previous decision, finding that single-entity direct infringement is a prerequisite for induced infringement.⁷⁶ His Honour's primary reasons for reaching this conclusion were that the structure of the legislation and prior Supreme Court authority clearly mandated it.⁷⁷ Indeed, Alito J chided the majority's reasoning in the *en banc* decision stating that their Honours' 'analysis fundamentally misunderstands what it means to infringe a method patent'.⁷⁸ Justice Alito expressed concern that the divided performance 'anomaly' may allow parties to avoid infringement liability but found that it did not 'justify fundamentally altering the rules of inducement liability that the text and structure of the Patent Act clearly require'.⁷⁹ The case was therefore remanded for consideration on the correct understanding of US infringement law.⁸⁰

C A Re-formulation of Direct Infringement Law

A year later, the *en banc* Federal Circuit reconsidered whether the defendant in *Akamai* 'directed or controlled' its clients' actions. In a unanimous decision with few references, the Court held that the 'direction or control' test can be satisfied 'when an alleged infringer conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance'.⁸¹ The Court then found that the defendant both conditioned its clients' use of the CDN on their performance of tagging and established the manner of its clients performing this step by supplying them with the specific information on how to achieve it and providing assistance if it was needed.⁸² Thus, the Court found that the defendant 'controlled or directed' its clients' actions and was therefore liable for direct infringement.⁸³ The case was returned to a regularly convened Federal Circuit for residual issues of claim construction, but these were resolved in favour of the

72 Ibid 1319.

73 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111 (2014); *McKesson Technologies Inc v Epic Systems Corp*, 133 S Ct 1521 (2013); *Epic Systems Corp v McKesson Technologies Inc* 133 S Ct 1520 (2013).

74 Stewart Bishop, *McKesson, Epic End High Court Induced-Infringement Fight* (5 March 2013) Law 360 <<https://www.law360.com/articles/420852/mckesson-epic-end-high-court-induced-infringement-fight>>.

75 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2115 (2014).

76 Ibid 2117.

77 Ibid 2117–18.

78 Ibid 2117.

79 Ibid 2120.

80 Ibid.

81 *Akamai Technologies Inc v Limelight Networks Inc*, 797 F 3d 1020, 1023 (Fed Cir, 2015).

82 Ibid 1024–5.

83 Ibid.

patentee.⁸⁴ The case was eventually concluded in April 2016 when the Supreme Court refused a second writ of certiorari.⁸⁵

Although, the law applicable to divided performance has been developing at a rapid pace, a number of US-based scholarly articles have been published on *Akamai* and *McKesson* and, more broadly, on the issue of divided performance itself.⁸⁶ A common theme in these articles is whether the law sufficiently protects patented methods, or whether divided performance effectively means that parties can organise their commercial activities to take advantage of a patent without infringing it.⁸⁷ Related to this concern is that, as *Akamai*, *McKesson* and *Muniauction Inc v Thomson Corporation* demonstrate, divided performance lends itself to internet-based communication. As Professor Mark Lemley et al have noted:

as communications technologies support ever increasing bandwidth, virtually any innovation that employs computation or decision-making is susceptible to placement of a particular component or step with an independent vendor ... in a way that may avoid traditional infringement remedies.⁸⁸

Indeed, this issue could affect technologies as diverse as biotechnology. For example, if a patented method of diagnosing a clinical condition involves communication between a doctor, a patient and a genetic laboratory, then quite plausibly a third party could organise performance of the patent by separating the steps between these different actors.⁸⁹

A number of commentators, especially prior to the second *en banc* decision, referred to the controversy surrounding divided performance in the US as a loophole that must be closed.⁹⁰ The outcome in *Akamai* clearly affects many of

84 *Akamai Technologies Inc v Limelight Networks Inc*, 805 F 3d 1368, 1372, 1381 (Fed Cir, 2015).

85 *Limelight Networks Inc v Akamai Technology Inc*, 136 S Ct 161 (2016).

86 See, eg, Nicole D Galli and Edward Gecovich, 'Cloud Computing and the Doctrine of Joint Infringement: "Current Impact" and Future Possibilities' (2012) 11 *The John Marshall Review of Intellectual Property Law* 673; Erik P Harmon, 'Promoting the Progress of Personalized Medicine: Redefining Infringement Liability for Divided Performance of Patented Methods' (2014) 42 *Hofstra Law Review* 967; W Keith Robinson, 'No "Direction" Home: An Alternative Approach to Joint Infringement' (2012) 62 *American University Law Review* 59, 103–4; Larsen, above n 4.

87 See, eg, Reza Dokhanchy, 'Cooperative Infringement: I Get By (Infringement Laws) with a Little Help from My Friends' (2011) 26 *Berkeley Technology Law Journal* 135, 135–6, 159; Damon Gupta, 'Virtually Uninfringeable: Valid Patents Lacking Protection under the Single Entity Rule' (2012) 94 *Journal of the Patent and Trademark Office Society* 61, 66–8.

88 Lemley et al, above n 2, 271.

89 For a recent application of this understanding of US direct infringement law in a medical scenario not including use of the internet, see *Eli Lilly and Co v Teva Parenteral Medicines, Inc*, 845 F 3d 1357 (Fed Cir, 2017).

90 See generally Kristin E Gerdelman, 'Subsequent Performance of Process Steps by Different Entities: Time to Close Another Loophole in US Patent Law' (2004) 53 *Emory Law Journal* 1987; Long Truong, 'After *BMC Resources Inc v Paymentech, LP*: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable' (2009) 103 *Northwestern University Law Review* 1897, 1899; Robinson, above n 86; see also Larsen, above n 4; Gupta, above n 87; Ben Morgan, 'Joint Infringement and the Impact of *BMC Resources, Inc v Paymentech, L.P*' (2008–2009) 12 *Southern Methodist University Science & Technology Law Review* 173, 200; Stacie L Greskowiak, 'Joint Infringement after *BMC*: The Demise of Process Patents' (2010) 41 *Loyola University Chicago Law Journal* 351; Dokhanchy, above n 87, 153–4.

the arguments in these articles.⁹¹ Nevertheless, the controversy surrounding this topic warrants close examination in Australia. The next part of this article examines whether the factual scenarios in *Akamai* and *McKesson* might constitute patent infringement in Australia.

III MIGHT THE FACTS FROM *AKAMAI* AND *MCKESSON* RESULT IN INFRINGEMENT IN AUSTRALIA?

Patent infringement in Australia can be found under three statutory causes of action. Section 13(1) of the *Patents Act* specifies that a patentee has the exclusive right to ‘exploit’ their invention and defines ‘exploit’ as including:

- (a) where the invention is a product – make, hire, sell or otherwise dispose of the product, offer to make, sell, hire or otherwise dispose of it, use or import it, or keep it for the purpose of doing any of those things; or
- (b) where the invention is a method or process – use the method or process or do any act mentioned in paragraph (a) in respect of a product resulting from such use.⁹²

Consistent with this right, direct or primary infringement occurs when an unauthorised party, for example, makes or uses an invention. Section 13(1) also specifies that a patentee has the right to ‘authorise’ others to ‘exploit’ an invention, and thus infringement can occur if a party other than a patentee ‘authorises’ another party to exploit an invention.⁹³ In addition, section 117 specifies that, in certain circumstances, suppliers can be liable for infringing uses of the products they supply.⁹⁴ Furthermore, there are two common law infringement mechanisms: a party can be liable for procuring another to exploit

91 Nevertheless, some commentators suggest the law might still not adequately protect all technologies, particularly personalised medicines, see James R Whittle, ‘Tailored Treatment, Tailored Enforcement: Protecting Innovation in Personalized Medicine from a Patent-Protection Loophole’ (2016) 84 *George Washington Law Review* 480; Jingyuan Luo, ‘Concluding the *Akamai* Chapter of Divided Infringement: Is the Liability Loophole Closed?’ (2016) 31 *Berkeley Technology Law Journal* 467; Nathaniel Grow, ‘Resolving the Divided Patent Infringement Dilemma’ (2016) 50 *University of Michigan Journal of Law Reform* 1. Another scholar has suggested that the law is ‘at odds’ with the patent system and the US Patents Act: see Katie Silikowski, ‘A Methodological Look at Divided Infringement’ (2016) 15 *John Marshall Review of Intellectual Property Law* 780.

92 *Patents Act 1990* (Cth) s 13(1), sch 1 (definition of ‘exploit’).

93 See, eg, *SNF (Australia) v Ciba Special Chemicals Water Treatments Ltd* (2011) 92 IPR 46, 115 (Kenny J); *Streetworx Pty Ltd v Artcraft Urban Group Pty Ltd* (2014) 110 IPR 82, 151–3 (Beach J); *Inverness Medical Switzerland GmbH v MDS Diagnostics Pty Ltd* (2010) 85 IPR 525, 568–70 (Bennett J). The term ‘direct infringement’ has also recently been used to describe infringement by authorisation: see *Blueport Nominees Pty Ltd v Sewerage Management Services Pty Ltd* (2015) 113 IPR 388, 401–2 [84]–[88] (Barker J). However, it is much more common to use this term in respect of ‘infringement by exploitation’: see, eg, *Northern Territory v Collins* (2008) 235 CLR 619, 642 (Crennan J), thus this article will use the term in the latter respect.

94 *Patents Act 1990* (Cth) s 117(2)(b).

an invention,⁹⁵ and for engaging in a common design with an infringer that exploits an invention.⁹⁶ Each cause of action will be addressed in turn.

A Direct Infringement

Patented methods are perhaps most commonly infringed when a third party encroaches on a patentee's right to 'use' the method.⁹⁷ It is well established in Australian patent law that a patented method is infringed only when a third party performs every step of the method.⁹⁸ As described above, the defendants in *Akamai* and *McKesson* did not perform all the steps of the relevant inventions. Consequently, to create infringement liability for these cases in Australia, a legal mechanism must be used to attribute the performance of the divided steps to the defendants.

Australian legal mechanisms that can attribute exploitation of an invention by one party to another include agency and vicarious liability.⁹⁹ Unlike US patent law, Australian patent law does not contain a mechanism analogous to the 'control or direction' test.¹⁰⁰ Relevantly, an 'agent' is a person who, by virtue of authority conferred upon them, is able to create or affect legal rights and duties as between another person and third parties.¹⁰¹ In *Akamai* and *McKesson*, no conferral of legal authority occurred, thus agency-type arguments are irrelevant.

Vicarious liability attributes the actions of one person to another when there is a sufficient relationship between the two parties, and the actions to be attributed to the 'responsible party' are sufficiently connected to that relationship.¹⁰² Vicarious liability typically arises between an employer and an employee, but only when an employer has a right to control an employee's actions.¹⁰³ Vicarious liability somewhat resembles the US 'control or direction' test, however, it has pivotal differences. For example, vicarious liability typically applies between employers and employees, but not to the relationships that

95 *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* (1999) 164 ALR 239, 258–9 (The Court); *Danisco AS v Novozymes AS (No 2)* (2011) 91 IPR 209, 244–6 (Bennett J); *Damorgold Pty Ltd v JAI Products Pty Ltd* (2014) 105 IPR 60, 72 (Middleton J).

96 *SNF (Australia) Pty Ltd v Ciba Specialty Chemicals Water Treatments Ltd* (2011) 92 IPR 46, 115–16 (Kenny J); *Bayer Pharma Aktiengesellschaft v Genentech Inc* (2012) 98 IPR 424, 428–32 (Bennett J); *Morton-Norwich Products v Intercen Ltd* [1978] RPC 501, 510 (Graham J).

97 *Patents Act 1990* (Cth) s 13(1), sch 1 (definition of 'exploit'). Infringement of a method patent can also occur when a product resulting from 'use' of the patented method is 'used' or 'sold'; however, since the analysis here shows the method is not 'used', it is redundant to also consider these additional arguments.

98 *Patents Act 1990* (Cth) s 120(1); *Olin Corporation v Super Cartridge Co Pty Ltd* (1976) 180 CLR 236, 246 (Gibbs J); *Populin v HB Nominees Pty Ltd* (1982) 59 FLR 37, 41 (The Court); *Danisco AS v Novozymes AS (No 2)* (2011) 91 IPR 209, 237–8, cf 244–6 (Bennett J).

99 Carolyn Sappideen, Prue Vines and Penelope Watson, *Torts: Commentary and Materials* (Thomson Reuters, 11th ed, 2012) 623–4; *Townsend v Haworth* (1875) 12 Ch D 831; *Australasian Performing Right Association Ltd v Miles* (1961) 3 FLR 146, 148–9 (Jacobs J).

100 It could be argued that the 'direction and control' test should be incorporated into Australian patent law, but since, as explored in Part II(D) (below), procured infringement plausibly creates liability, it is not yet necessary to consider significantly altering Australian patent law.

101 *Petersen v Moloney* (1951) 84 CLR 91, 94 (The Court); see generally Gino E Dal Pont, *Law of Agency* (Butterworths, 2001) 5–6; *Sykes v Howorth* (1879) 12 Ch D 826.

102 Sappideen, Vines and Watson, above n 99, 624.

103 *Ibid* 624–5; *Humberstone v Northern Timber Mills* (1949) 79 CLR 389, 404–5 (Dixon J).

traditionally arise between sub-contractors and their hirers.¹⁰⁴ Illustrating the high threshold that must be satisfied, Sappideen, Vines and Watson note that vicarious liability will only be found in the employee–employer context when ‘the employer can tell the person not only what to do but how to do it’;¹⁰⁵ this includes controlling working hours, the obligation to perform tasks, organisation of future tasks, and the ability to control the variety of tasks that will be performed.¹⁰⁶

In *Akamai* and *McKesson*, the relationships between the defendants and parties performing the steps of the invention as claimed were those of suppliers and clients.¹⁰⁷ Relevantly, the clients chose to perform a limited range of tasks and chose when to perform them at their own discretion. There were no specific time frames for performance and the clients suffered no repercussions beyond not receiving a benefit for which they originally contracted with the defendants to get. In this sense, they are analogous to sub-contractors who choose what work they want to perform and when.¹⁰⁸ Consequently, infringement arguments via vicarious liability would be unlikely to succeed.

B Infringement by Authorisation

Compared to direct infringement, authorised infringement under section 13(1) of the *Patents Act* appears more applicable to the facts from *Akamai* and *McKesson*. Well-established elements of the cause of action are, however, likely to prevent any finding of liability here too. The two cases *Roadshow Films Pty Ltd v iiNet Ltd* (‘*iiNet*’)¹⁰⁹ and *SNF (Australia) v Ciba Special Chemicals Water Treatments Ltd* (‘*SNF*’)¹¹⁰ are on point with *Akamai* and *McKesson* and describe the cause of action. *iiNet* concerned infringement by authorisation in copyright law but is considered instructive on the cause of action in patent law.¹¹¹

Both joint judgments in *iiNet* stated that authorisation involves the consideration of three key elements: the nature of the relationship between the direct infringer and alleged authoriser; the power to prevent infringement; and steps taken to prevent infringement.¹¹² On the facts in *iiNet*, both judgments

104 *Hollis v Vabu* (2001) 207 CLR 21, 36, cf 38–46 (Gleeson CJ, Gaudron, Gummow, Kirby and Hayne JJ).

105 Sappideen, Vines and Watson, above n 99, 624.

106 *Ibid* 625.

107 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 122 (D Mass, 2009).

108 *Hollis v Vabu* (2001) 207 CLR 21, 36–8 (Gleeson CJ, Gaudron, Gummow, Kirby and Hayne JJ).

109 (2012) 248 CLR 42.

110 (2011) 92 IPR 46.

111 See, eg, *Streetworx Pty Ltd v Artcraft Urban Group Pty Ltd* (2014) FCA 1366, 1458 (Beach J); *Apotex Pty Ltd v Les Laboratoires Servier (No 2)* (2012) 293 ALR 272, 278 (Bennett J); *Bristol-Myers Squibb Co v FH Faulding & Co Ltd* (2000) 97 FCR 524, 559 (Black CJ and Lehane J). For a more expansive discussion on this point, see John Liddicoat, Jane Nielsen and Dianne Nicol, ‘Three Dimensions of Patent Infringement: Liability for Creation and Distribution of CAD Files’ (2016) 26 *Australian Intellectual Property Journal* 165, 173–4.

112 *Roadshow Films Pty Ltd v iiNet Ltd* (2012) 248 CLR 42, 67 (French CJ, Crennan and Kiefel JJ), 87 (Gummow and Hayne JJ). These elements are specified in the *Copyright Act 1968* (Cth) s 101(1A). However, they are effectively a codified form of Gibbs J’s statements in *University of New South Wales v Moorhouse* (1975) 133 CLR 1, 12–13, which in themselves are distilled from *The Corporation of the City of Adelaide v Australasian Performing Right Association Ltd* (1928) 40 CLR 481, 487 (The Court). See

found that an internet service provider ('ISP') did not authorise the copyright infringement of its clients.¹¹³ In reaching this conclusion, both judgments put significant weight on the fact that the only power the ISP had to prevent their clients' infringement was by terminating the internet services they provided.¹¹⁴ This, their Honours held, was a power that would not prevent infringement, just prevent further infringement via that ISP as an intermediary.¹¹⁵ In *SNF*, Kenny J found authorised infringement when a party supplied a key component of a patented method for treating mining waste.¹¹⁶ However, in addition to supplying the component, the respondent also advised how to conduct infringing actions, provided support, and had the power to prevent infringement because they could choose not to supply the component.¹¹⁷

In many ways, the facts from *Akamai* and *McKesson* are similar to *SNF*. In both *Akamai* and *McKesson*, the defendants created scenarios for all the steps in the patented methods to be performed. In *Akamai*, this was achieved by setting up the CDN and instructing clients on how to tag page objects, and in *McKesson*, this was achieved by creating and supplying software that, with the interaction of the healthcare provider and patients, would result in each of the steps being performed. Furthermore, in both cases, no evidence was adduced demonstrating the defendants took steps to avoid infringement. It follows, then, that if these were the only criteria for authorised infringement, there would probably be a strong basis for arguing that liability may arise in Australia. However, both judgments in *iiNet* make it clear that direct infringement must be established as a prerequisite to a finding on authorisation. On this point, French CJ, Crennan and Kiefel JJ stated:

a primary infringement of a copyright in a cinematograph film occurs when a person, who is neither the owner nor the licensee, makes the film available online without the copyright owner's consent; a secondary infringement occurs when a person, who is neither the owner nor the licensee, authorises the making available online of the film without the copyright owner's consent.¹¹⁸

In the same case, Gummow and Hayne JJ stated, 'a secondary infringement is completed only when the primary infringement has taken place'.¹¹⁹ This second passage was specifically affirmed by Bennett J in the patent case *Apotex Pty Ltd v Les Laboratoires Servier*.¹²⁰ Thus, there is no reason to expect that this element of the law applies in different ways to patent law and copyright law respectively. Indeed, the text in section 13(1) specifically states that patentees have the right to

also *Cooper v Universal Music Australia Pty Ltd* (2006) 156 FCR 380, 382 (French J), 410–13 (Kenny J), 386–91 (Branson J).

113 *Roadshow Films Pty Ltd v iiNet Ltd* (2012) 248 CLR 42, 69–71 (French CJ, Crennan and Kiefel JJ), 88–9 (Gummow and Hayne JJ).

114 *Ibid.*

115 *Ibid* 70 (French CJ, Crennan and Kiefel JJ), 88 (Gummow and Hayne JJ).

116 (2011) 92 IPR 46, 52.

117 *Ibid* 118–19 (Kenny J); this case was appealed but only on validity, not infringement, see *SNF (Australia) Pty Ltd v Ciba Specialist Chemicals Water Treatments Ltd* (2012) 96 IPR 365, 365–6.

118 *Roadshow Films Pty Ltd v iiNet Ltd* (2012) 248 CLR 42, 49 [8].

119 *Ibid* 74 [94].

120 *Apotex Pty Ltd v Les Laboratoires Servier [No 2]* (2012) 293 ALR 272, 278.

‘authorise *another person to exploit* the invention’.¹²¹ It follows that, since no direct or primary infringement has occurred (as outlined above due to divided performance), authorised infringement cannot be found.

In Monotti’s article on infringement of interactive claims by separate parties in Australia, she analyses authorisation from a more abstract perspective and raises divided performance as a possible ‘hurdle’ to liability.¹²² However, since both the judicial statements and legislation on this point appear quite explicit, this requirement appears to be more of a barrier than a hurdle.

C Supply Infringement

The fact that there was supply of products and services to clients in *Akamai* and *McKesson* suggests that supply infringement under section 117 of the *Patents Act* is a relevant consideration. Section 117(1) provides that if the use of a product constitutes infringement, then supply of that product will also constitute infringement if the conditions in one of three scenarios are met. Section 117(2) lists these scenarios: (a) if the infringing use of the product is the only ‘reasonable use’ of it; (b) if the product is a non-staple commercial product and ‘the supplier had reason to believe’ that it would be put to the infringing use; and (c) if the product is supplied with inducement to put it to the infringing use.¹²³ Before analysing whether the facts from *Akamai* or *McKesson* satisfy any of the scenarios in section 117(2), however, there are two threshold issues in section 117(1) that need to be addressed.¹²⁴

The first issue concerns the definition of ‘infringement’ in the passage from section 117(1) ‘[i]f use of a product by *a person* would infringe a patent ...’.¹²⁵ The argument under this wording is that because there is no infringement by one party, then section 117 is not applicable. In effect, this is (again) the same single entity issue as enunciated in the US cases. In addition to the literal wording of section 117, there are several passages from judgments in the High Court of Australia (‘High Court’) case *Northern Territory v Collins* (‘*Collins*’)¹²⁶ that support this argument: Crennan J stated that ‘[s]ection 117 covers infringement by supplying another person with a product, the other person being the direct

121 *Patents Act 1990* (Cth) s 13(1) (emphasis added).

122 Monotti, ‘Liability for Joint Infringement’, above n 2, 324–6.

123 *Patents Act 1990* (Cth) s 117(2) (emphasis added).

124 It is arguable that method claims that do not have a ‘product resulting’ from their ‘use’ cannot be enforced under s 117: see *Rescare v Anaesthetic Supplies Pty Ltd* (1992) 111 ALR 205, 242–3 (Gummow J), affd in obiter in *Anaesthetic Supplies Pty Ltd v Rescare Ltd* (1994) 50 FCR 1, 45 (Wilcox J), 24 (Lockhart J). However, this argument has been described in detail elsewhere and is contrary to the legislature’s intent: see Ann Monotti, ‘Contributory Infringement of a Process Patent under the Patents Act 1990: Does It Exist after Rescare?’ (1995) 6 *Australian Intellectual Property Journal* 217, 223–4. Furthermore, the Full Bench of the Federal Court has in obiter expressly disagreed with this position: see *Bristol-Myers Squibb Company v FH Faulding & Co Ltd* (2000) 97 FCR 524, 558 (Black CJ and Lehane J), 573 (Finkelstein J); as have two members of the High Court: see *Northern Territory v Collins* (2008) 235 CLR 619, 650 (Crennan J), 634 (Heydon J). Therefore, this article will not consider this argument any further.

125 *Patents Act 1990* (Cth) s 117(1) (emphasis added).

126 *Northern Territory v Collins* (2008) 235 CLR 619.

infringer’;¹²⁷ and Hayne J stated ‘[i]t is *that* use which must be identified as the use which would infringe the patent because the hinge about which section 117 turns is its introductory words: “[i]f the use of a product by a person would infringe a patent”’.¹²⁸ Emphasising the point, Hayne J continued that section 117 liability ‘turn[s] upon whether the use in question contravenes the patentee’s exclusive rights under s 13 of the Act’.¹²⁹ These explanations of the law mean that there is clear High Court authority stating that supply infringement can only arise when an exploitation within the meaning of section 13 occurs.¹³⁰ The significance of this is that, as analysed above, it is unlikely that a right within section 13 is infringed – primarily because of divided performance. As a result, on the basis of these arguments, section 117 is unlikely to be applicable to the factual scenarios from *Akamai* or *McKesson*.

The second issue in section 117(1) concerns the definition of ‘product’. This issue only applies to the factual circumstances in *Akamai*. Although the defendant in *Akamai* operated a CDN and supplied associated support for its operation,¹³¹ the decision did not describe a specific item that was supplied and related to using the patented method. Thus, it is arguable that a service, as opposed to a product, was supplied.¹³² An Australian court is yet to dismiss a section 117-based argument because only a service was supplied; however, previous decisions on section 117 have been limited to commodities such as timber,¹³³ pharmaceuticals¹³⁴ and chemicals.¹³⁵ Thus, what was provided in *Akamai* is significantly different in character from what has previously been argued before the courts. Further support for this argument can be found in extrinsic materials to the *Patents Act*. The 1984 Industrial Property Advisory Committee report, which was instrumental in the inclusion of the supply infringement provision in the *Patents Act*,¹³⁶ specifically referred to supply infringement provisions only applying to goods, materials, and parts.¹³⁷ Since this report laid the basis for section 117,¹³⁸ it would be expected that this extrinsic material to the Act would be quite influential in guiding judicial interpretation of

127 Ibid 642.

128 Ibid 628 (emphasis in original).

129 Ibid 629.

130 See also *Rescare v Anaesthetic Supplies Pty Ltd* (1992) 111 ALR 205, 242–3 (Gummow J); this reasoning was also labelled as ‘uncontentious’ by Monotti, ‘Contributory Infringement’, above n 124, 223.

131 *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2115 (2014).

132 It should be noted that in *Akamai*, instructions on how to use the defendant’s CDN were supplied, but these could not be ‘used’ to infringe a patented method for distributing page objects on a CDN.

133 See generally *Northern Territory v Collins* (2008) 235 CLR 619.

134 See generally *Generic Health Pty Ltd v Otsuka Pharmaceutical Co Ltd* (2013) 296 ALR 50; *Apotex Pty Ltd v AstraZeneca AB [No 4]* (2013) 100 IPR 285.

135 *SNF (Australia) v Ciba Special Chemicals Water Treatments Ltd* (2011) 92 IPR 46 (Kenny J).

136 Statement of the Minister for Science, ‘Government Response to the Report of the Industrial Property Advisory Committee, “Patents, Innovation and Competition in Australia”’ (1986) 56 *Australian Official Journal of Patents, Trade Marks and Designs* 1462, 1477; Explanatory Memorandum, Patents Bill 1990 (Cth) 28.

137 Industrial Property Advisory Committee, Parliament of Australia, *Patents, Innovation and Competition in Australia* (1984) 67.

138 Explanatory Memorandum, Patents Bill 1990 (Cth) 28.

the provision. It follows, then, that there are quite sound arguments that the definition of ‘product’ prevents section 117 from applying to the facts from *Akamai*.

Although the scenarios in *Akamai* and *McKesson* may not satisfy the requirements in section 117(1), if it is assumed that they did, it would be necessary to identify at least one of the subsections in section 117(2) that applies to the facts from each case. Section 117(2)(a) refers to an infringing use that is the only reasonable use of the product supplied. In *Akamai*, the ‘product’ supplied (if it can be called that) was a CDN. As outlined in the US case, when the defendant’s CDN was in operation, with all the parties performing their expected steps, all the steps of the method patent were collectively performed.¹³⁹ The fact the defendant’s CDN was designed to achieve this outcome suggests that this use would be classified as its only reasonable use.¹⁴⁰ On this basis, the factual circumstances in *Akamai* would likely satisfy the requirements in section 117(2)(a). A similar argument can also be constructed for the software supplied in *McKesson*; the trial Court indicated that the purpose of the patented invention in *McKesson* was to facilitate internet-mediated communication with patients, and that this was something that could only be achieved if all the steps of the method claims were performed.¹⁴¹ Consequently, there are sound arguments that the facts from both cases would satisfy section 117(2)(a).

A successful section 117(2)(b) action requires proof that the product supplied is not a ‘staple commercial product’, and that ‘the supplier had reason to believe’ that the product would be put to the infringing use alleged. The term ‘staple commercial product’ is not defined in the *Patents Act* but was interpreted by the High Court in *Collins* to be one that is supplied for a variety of applications.¹⁴² To illustrate this interpretation: in *Collins*, unmilled timber was found to be a staple commercial product; in contrast, in *Apotex Pty Ltd v AstraZeneca AB [No 4]*,¹⁴³ since the drug rosuvastatin could only be used to treat cardiovascular disease, albeit even when linked to other diseases such as diabetes,¹⁴⁴ these uses were not considered diverse enough to classify the drug as a staple commercial product.¹⁴⁵ In reference to the software in *McKesson* and the CDN in *Akamai*, both are unlikely to be classified as staple commercial products because their uses are quite limited, namely, patient communication and management in *McKesson*, and website content distribution in *Akamai*. Thus, this requirement is likely to be met.

139 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 116–17 (D Mass, 2009); *Akamai Technologies Inc v Limelight Networks Inc*, 629 F 3d 1311, 1305–7 (Fed Cir, 2011).

140 *Akamai Technologies Inc v Limelight Networks Inc*, 629 F 3d 1311, 1317–18 (Fed Cir, 2011).

141 *McKesson Technologies Inc v Epic Systems Corp*, 98 USPQ 2d (BNA) 1281 [2]–[4] (Fed Cir, 2011).

142 *Northern Territory v Collins* (2008) 235 CLR 619, 626 (Gummow ACJ and Kirby J), 653–4 (Crennan J); see also *Generic Health Pty Ltd v Otsuka Pharmaceutical Co Ltd* (2013) 296 ALR 50, 65 (Bennett J); *Apotex Pty Ltd v AstraZeneca AB [No 4]* (2013) 100 IPR 285, 411 (Jagot J); *Otsuka Pharmaceutical Co Ltd v Generic Health Pty Ltd* (2012) 291 ALR 763, 778–9 (Yates J).

143 *Apotex Pty Ltd v AstraZeneca AB [No 4]* (2013) 100 IPR 285.

144 *Ibid* 408–9 (Jagot J).

145 *Ibid* 410–11 (Jagot J). On appeal, the Full Court of the Federal Court of Australia agreed with Jagot J’s reasoning: see *AstraZeneca AB v Apotex Pty Ltd* (2014) 226 FCR 324, 417–18.

On the second requirement in section 117(2)(b) – whether ‘the supplier had reason to believe’ that a person would put the product to the infringing use alleged – in *Generic Health Pty Ltd v Otsuka Pharmaceutical Co Ltd*, all the members of the Full Court of the Federal Court of Australia concluded that this can be satisfied objectively,¹⁴⁶ with the test being whether ‘a reasonable person in the position of [the supplier] would have reason to hold such a belief’.¹⁴⁷ As outlined above, the uses of the CDN in *Akamai* and software in *McKesson* were directed towards the infringing purposes alleged, thus the suppliers in both circumstances would have reason to believe that the use would occur because that was what they were designed to do. Consequently, it is likely that both requirements in section 117(2)(b) would be satisfied.

A successful section 117(2)(c) action requires proof that the product supplied is used in accordance with instructions or some form of inducement. As detailed above, in *Akamai*, instructions were provided to the defendant’s clients instructing them how to tag objects.¹⁴⁸ By contrast, in *McKesson*, no facts were provided in the written decisions pertaining to instructions or technical support. As explained above, however, the case never progressed to considering facts relating to infringement. Therefore, the absence of such facts is not conclusive of whether instructions were provided to clients. Indeed, the defendant’s current website details live classroom training, video lessons, and phone and web support.¹⁴⁹ Given the technical nature of the defendant’s software and its use, it is relatively safe to assume that these types of instructions and support would have always been provided. Consequently, given the instructions in both cases are related to performing the infringing actions, it appears that robust infringement arguments could be mounted under section 117(2)(c) as well.

Summarising the results from this analysis of section 117: the infringing uses in sections 117(2)(a)–(c) all plausibly apply to the factual circumstances of *Akamai* and *McKesson*, however, the threshold issues with the definition of ‘product’ and ‘infringement’ in section 117(1) mean that, overall, the factual scenarios in *Akamai* and *McKesson* are unlikely to create supply infringement liability.

In Monotti’s article on interactive claims, she does not raise the limitations that the definition of ‘product’ may have in creating liability for the facts from *Akamai*,¹⁵⁰ nor does she raise the applicability of section 117(2)(b) or (c). She does comment that the factual scenarios would fit into section 117(2)(a) and raises the issue of whether the definition of ‘infringement’ within the meaning of

146 *Generic Health Pty Ltd v Otsuka Pharmaceutical Co Ltd* (2013) 296 ALR 50, 59 (Emmett J), 73–4 (Bennett J), 90 (Greenwood J). For a more expansive discussion of this point, see Johnathon E Liddicoat, ‘Reluctance Realised? Emerging Problems with s 117(2)(b) of the *Patents Act 1990* (Cth)’ (2015) 41 *Monash University Law Review* 163, 170–1.

147 *Generic Health Pty Ltd v Otsuka Pharmaceutical Co Ltd* (2013) 296 ALR 50, 59 (Emmett J).

148 *Akamai Technologies Inc v Limelight Networks Inc*, 629 F 3d 1311, 1321–2 (Fed Cir, 2011).

149 Epic, *Client Services* <<https://www.epic.com/services>>; Epic, *Contact* <<https://www.epic.com/contact>>.

150 Monotti does state that s 117 does not apply to services but does not specifically say this might mean the provision cannot create liability for the facts from *Akamai*: see Monotti, ‘Liability for Joint Infringement’, above n 2, 323.

section 13 would operate to limit its operation.¹⁵¹ On this last point though, Monotti is more equivocal on whether supply infringement is applicable to divided performance, arguing that the use of ‘would’ in section 117(1) might mean that infringement can be found if the parties were acting as joint tortfeasors¹⁵² (through the term ‘joint tortfeasors’, Monotti is referring to the common law actions of common design and procured infringement).¹⁵³ There are, however, two problems with this argument. First, it effectively disregards both a literal interpretation of section 117 and the comments from Crennan and Hayne JJ in *Collins* (extracted above) stating that direct infringement is a prerequisite for supply infringement. Second, if joint tortfeasance can be proved against the defendant’s actions in scenarios like those in *Akamai* or *McKesson* (as explored below), there is little reason to prove supply infringement as well.¹⁵⁴

D Procured Infringement

As outlined above, two common law causes of action exist that are relevant to the facts in *Akamai* and *McKesson*: common design and procured infringement.¹⁵⁵ Procured infringement has a much longer history than common design, with UK cases in the 19th century applying¹⁵⁶ and approving it;¹⁵⁷ however, a judicial comment early in the 20th century also criticised it for being of dubious authority.¹⁵⁸ Australian courts in the 1980s and 1990s considered the action but never actually applied it.¹⁵⁹ Justice Young highlighted the controversy surrounding this cause of action in *Ryan v Lum*, stating:

Tempting as it is to be the first to have the glory of deciding the point or alternatively the infamy of having decided it wrongly, it seems to me that I should not go further than to record the arguments which have been put to me and to

151 Ibid 324.

152 Ibid.

153 Ibid 320.

154 Admittedly, since s 117 states that supply infringement applies when ‘the use of a product by a person would infringe a patent’ (emphasis added) the provision is broader than common design and procured infringement because the latter actions do not have such prospective application: see *Collins v Northern Territory* (2007) 161 FCR 549, 572 (French J); *Sandvik Intellectual Property AB v Quarry Mining & Construction Equipment Pty Ltd* (2016) 118 IPR 421, 495 (Jessup J).

155 Other monikers could be used to describe these actions: see *Unilever Plc v Gillette (UK) Ltd* [1989] RPC 583, 609 (Lord Mustill); *Mölnlycke AB v Procter & Gamble Ltd [No 4]* [1992] 1 WLR 1112, 1118–19; *Caterpillar Inc v John Deere Ltd* (1999) 48 IPR 1, 9 (Carr, Sundberg and Kenny JJ). In *Unilever Plc v Gillette (UK) Ltd* [1989] RPC 583, Mustill LJ queried whether, and decided that, these causes of action are different: at 608; see also *Collins v Northern Territory* (2007) 161 FCR 549, 560 (French J).

156 *Innes v Short* (1898) 15 RPC 449, 451–2 (Bigham J).

157 See *Gibson v Brand* (1842) 1 WPC 627, 631 (Tindal CJ); *Townsend v Haworth* (1879) 48 LJ Ch 770, 770–1 (Jessel MR); see also *Collins v Northern Territory* (2007) 161 FCR 549, 560 (French J).

158 *Adhesive Dry Mounting Co Ltd v Trapp & Co* (1910) 27 RPC 341, 353 (Parker J).

159 *Ryan v Lum* (1989) 14 IPR 513, 521–2; *BEST Australia Ltd v Aquagas Marketing Pty Ltd* (1988) 83 ALR 217, 220 (Wilcox J); *CCOM Pty Ltd v Jiejing Pty Ltd [No 2]* (1994) 48 FCR 41; *Bristol-Myers Squibb Co v FH Faulding & Co Ltd* (1998) 41 IPR 467, 489 (Heerey J). See also *Wellcome Foundation Ltd v Commissioner of Patents* (1980) 145 CLR 520, 527–8 (The Court); *Re Application of Eli Lilly & Co* [1982] 1 NSWLR 526, 535 (Wootten J).

acknowledge the diligent research which must have gone into them and to leave the point open until it becomes absolutely necessary to decide it.¹⁶⁰

In 1999, the unanimous Full Court of the Federal Court of Australia in *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* ('*Ramset*')¹⁶¹ became the first Australian court to find procured infringement.¹⁶² The Court's decision validated the existence of the cause of action and outlined its boundaries, stating:

liability for infringement may be established, in some circumstances, against a defendant who has not supplied a whole combination (in the case of a combination patent) or performed the relevant operation (in the case of a method patent). The necessary circumstances have been variously described: the defendant may 'have made himself a party to the act of infringement'; or participated in it; or procured it; or persuaded another to infringe; or joined in a common design to do acts which in truth infringe. All these go beyond mere facilitation. They involve the taking of some step designed to produce the infringement, although further action by another or others is also required. Where a vendor sets out to make a profit by the supply of that which is patented, but omitting some link the customer can easily furnish, particularly if the customer is actually told how to furnish it and how to use the product in accordance with the patent, the court may find the vendor has 'made himself a party to the [ultimate] act of infringement'. He has indeed procured it. So to hold is not in any way to trespass against the established line of authority which, as Dixon J made clear in *Walker v Alemite*, is based upon the need to confine a monopoly to the precise area in which it operates. That protects the mere vendor of an old product, though selling with knowledge of the purchaser's intention to infringe a combination patent; but it affords no excuse to the person who sets out to induce customers to do what falls fairly within the area of the monopoly.¹⁶³

Procured infringement has been thought of as being superseded by section 117 supply infringement.¹⁶⁴ As described below, however, it may still have a role in patent enforcement, especially with regard to divided performance. As explained by the Court in *Ramset*, an important feature of the action is that when a party procures another to infringe a patent, there is no need to find that the parties had a 'common design' to perform any activities.¹⁶⁵ Amongst other things, this feature distinguishes it from common design actions (discussed below).

With the passage of time, this extract from *Ramset* has been cited with approval in a number of judgments, including by a differently constituted Full Federal Court than that in *Ramset*.¹⁶⁶ It has also been applied by Bennett J in

160 *Ryan v Lum* (1989) 95 FLR 383, 391. Note that this argument is not recorded in *Ryan v Lum* (1989) 16 NSWLR 518.

161 (1999) 164 ALR 239.

162 *Ibid* 263.

163 *Ibid* 258–9 (The Court) (citations omitted).

164 Monotti, 'Liability for Joint Infringement', above n 2, 322; *Collins v Northern Territory* (2007) 161 FCR 549, 562 (French J).

165 *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* (1999) 164 ALR 239, 258–9, 263 (The Court); *contra Wake Forest University Health Sciences v Smith & Nephew Pty Ltd [No 2]* (2011) 92 IPR 496, 563 (Dodds-Streeton J).

166 *Collins v Northern Territory* (2007) 161 FCR 549, 562 (French J), 588–9 (Branson and Sundberg JJ); *Unilever Australia Ltd v PB Foods Ltd* [2000] FCA 798, [9] (Moore J); *Grove Hill Pty Ltd v Great Western Corp Pty Ltd* (2002) 55 IPR 257, 341 (Gyles J); *Leonardis v Theta Developments Pty Ltd* (2000) 78 SASR 376, 402 (Williams J); *SNF (Australia) Pty Ltd v Ciba Special Chemicals Water Treatments Ltd*

Danisco AS v Novozymes AS [No 2] ('*Danisco*')¹⁶⁷ and by Middleton J in *Damorgold Pty Ltd v JAI Products Pty Ltd* ('*Damorgold*').¹⁶⁸ Thus, although the High Court is yet to decide a procured infringement case, these decisions form a strong basis for the existence of procured infringement in Australia.

Despite this strong basis, some doubt lingers about whether procured infringement can operate to create liability when a product is supplied with instructions on how to perform a patented method. In the 1975 High Court decision *Firth Industries Ltd v Polyglass Engineering Pty Ltd* ('*Firth*'),¹⁶⁹ Stephen J, sitting as a single judge on an interlocutory injunction matter, stated in obiter that procuring others to infringe a method patent by providing instructions on how to achieve the infringing acts is 'a matter open to some doubt'.¹⁷⁰ A similar sentiment was also expressed by Cooper J in *CCOM Pty Ltd v Jiejing Pty Ltd* ('*CCOM*'),¹⁷¹ and by the High Court in the 1980 case *Wellcome Foundation Ltd v Commissioner of Patents* ('*Wellcome*').¹⁷² In *Wellcome*, the unanimous High Court stated in obiter that there were no authorities for establishing liability when a product is supplied with instructions to use it in a way that would infringe a method claim.¹⁷³ These statements from the High Court are problematic for concluding whether or not the facts from *Akamai* and *McKesson* would constitute infringement in Australia for two reasons: the supply of instructions are key facts; and the decisions in *Damorgold*, *Ramset* and *Danisco* did not address these cases. As described below, *Damorgold* is now clear authority that procured infringement can apply to scenarios that include the supply of a product along with instructions to infringe a patented method. However, against the backdrop of uncertainty created by *Wellcome* and *Firth*, one would be wise to exercise caution when concluding if and how exactly procured infringement does apply.

Assuming procured infringement does exist and can apply to situations that include the supply of a product accompanied by instructions to use it to infringe a patented method, then according to the extract from *Ramset*, two elements must be proved in a successful procured infringement action: (i) that there is a physical act of infringement; and (ii) that the conduct of the procuring party is sufficient to attribute infringing conduct to them. On the physical act of infringement, in both *Akamai* and *McKesson*, performance of all the steps in the method claims was not in dispute, rather, the question was whether steps performed by the clients could

(2011) 92 IPR 46, 115–16 (Kenny J); this case was appealed, but only on validity, not infringement: see *SNF (Australia) Pty Ltd v Ciba Specialist Chemicals Water Treatments Ltd* (2012) 96 IPR 365, 365–6; *Wake Forest University Health Sciences v Smith & Nephew Pty Ltd [No 2]* (2011) 92 IPR 496, 563 (Dodds-Streton J). See also *Bristol-Myers Squibb Co v FH Faulding & Co Ltd* (2000) 97 FCR 375, 559 (Black CJ and Lehane J); *McCallum & Co Pty Ltd v Allen Manufacturing Co Pty Ltd* (2001) 52 IPR 550, 556–7 (Gyles J); *CCOM Pty Ltd v Jiejing Pty Ltd* (1993) 27 IPR 577, 627 (Cooper J).

167 (2011) 91 IPR 209, 244–5.

168 (2014) 105 IPR 60, 72.

169 (1975) 132 CLR 489.

170 *Ibid* 497.

171 (1993) 27 IPR 577, 627 (Cooper J).

172 (1980) 145 CLR 520.

173 *Ibid* 527–8; see also *Bristol-Myers Squibb Co v FH Faulding* (1998) 41 IPR 467, 489 (Heerey J). For a more expansive review of *Firth* and *Wellcome*, see Ann Dufty, 'Report to the Industrial Property Advisory Committee' (Monash University Law School, 1983) vol 1, 221–2.

be attributed to the defendants. On this point, a passage from the extract from *Ramset* (above) is apposite: '[t]hey involve the taking of some step designed to produce the infringement, although further action by another or others is also required'.¹⁷⁴ This tends to imply that if one or more steps of a patented method are completed by one party and a second party completes the rest, this could give rise to liability. This interpretation, however, is open to debate. For instance, it could be argued that the extract only applies to two specific scenarios: (i) where a party partly assembles a patented product that is then completed by a second party; and (ii) where a party supplies a product to another who uses it to perform all the steps in a patented method. In short, it does not apply to divided performance of method claims. Support for these alternative interpretations can be found in dicta from *Ramset*. Their Honours specifically approved a passage from the UK case *CBS Songs Ltd v Amstrad Consumer Electronics Plc*¹⁷⁵ in which Lord Templeman, with whom all the members of the House of Lords agreed, stated: 'Generally speaking, inducement, incitement or persuasion to infringe must be by a defendant to an individual infringer and must identifiably procure a particular infringement in order to make the defendant liable as a joint infringer'.¹⁷⁶ *CBS Songs Ltd v Amstrad Consumer Electronics Plc* is a copyright case, but as their Honours stated in *Ramset*, 'it is necessary to bear in mind that his Lordship treated the patent cases as involving the same principle'.¹⁷⁷

Additional support for the argument that procured infringement does not create liability in circumstances of divided performance can also be found in the three cases mentioned above that have found procured infringement in Australia: *Ramset* concerned the supply of 'face-lift anchors' and 'ring clutches' to customers who used them to make patented construction apparatuses;¹⁷⁸ *Danisco* concerned the supply of an enzyme to customers who used it to perform all the steps in an infringing baking process;¹⁷⁹ and *Damorgold* concerned the supply of 'spring assists' to customers who used them to make patented window blind control apparatuses.¹⁸⁰ Thus, in each case, the person who was supplied with the item exploited the claimed invention by making the patented apparatus or performing all the steps in the patented method – liability was not found in circumstances of divided performance. As a result, no Australian decision has found procured infringement in circumstances of divided performance. By the same token though, no decision has denied liability either.¹⁸¹

If it is also assumed that procured infringement is applicable to divided performance, the second issue is whether the defendants' conduct in *Akamai* and *McKesson* would be sufficient to be classified as 'procuring' infringement. In

174 *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* (1999) 164 ALR 239, 258–9.

175 [1988] 2 All ER 484.

176 *Ibid* 496–7.

177 (1999) 164 ALR 239, 256 (The Court).

178 *Ibid* 243, 252, 258–65 (The Court).

179 (2011) 91 IPR 209, 237–45 (Bennett J).

180 (2014) 105 IPR 60, 61–2, 65–70, 72–3 (Middleton J).

181 In *Sandvik Intellectual Property AB v Quarry Mining & Construction* (2016) 118 IPR 421, 495, Jessup J stated 'joint tortfeasorship requires a primary infringer'. However, this statement was made in obiter, in relation to no actual physical evidence of infringing actions, and in reference to an apparatus claim.

Ramset, the infringer supplied construction components together with instructions in brochures, bulletins and personal seminars demonstrating how to make the infringing apparatuses.¹⁸² In *Danisco*, supply of the enzyme was supported by advice, presentations on the benefits of the enzyme and personal contact with customers.¹⁸³ In *Damorgold*, the supply of window blind components was supported by various ‘directions, recommendations and instructions’, all in a situation where the components only had one use.¹⁸⁴

The facts surrounding the applicability of procured infringement to the provision of CDN services in *Akamai* and the provision of the software in *McKesson* are not as comprehensive as they could be because the decisions focused on the single entity issue and direct infringement rather than the broader circumstances of inducement. Nevertheless, the written reasons for the decisions concerning the facts in *Akamai* do make it clear that, in addition to the defendant supplying the CDN service, it provided specific instructions on how to tag web objects and associated technical support.¹⁸⁵ Furthermore, in the circumstances of clients using the defendant’s CDN service, there was no possibility for them to obtain the benefits of that service without tagging.¹⁸⁶ As outlined above, in *McKesson*, no facts were provided in the decision pertaining to instructions or technical support. Despite this, the defendant’s current website details a wide variety of support for using the software,¹⁸⁷ and it is logical to assume that support of this nature existed at the time of the alleged infringing acts. The facts from the case do indicate that the software had a non-infringing use, namely, it allowed hospitals to link patient records to a patient’s website.¹⁸⁸ It is also clear, however, that the primary purpose of the software was to allow patients to access the website and to communicate with healthcare providers.¹⁸⁹ Thus, in both cases, the defendants deliberately created scenarios that meant when their product (or services) were used for their designed purpose, it would result in all the steps of the method patents being performed. Moreover, in both circumstances, instructions were provided to relevant parties detailing how to perform their part. In these respects, then, both cases are quite similar to *Damorgold*, in the sense that a high level of support was supplied for the infringing use, and what was being supplied only had one reasonable use, and that use was infringing. As a result (under the assumptions stipulated above), for factual circumstances

182 (1999) 164 ALR 239, 261–3 (The Court). The Court also appeared to attribute increased weight to the instructions since the components were used in dangerous work: at 261–2.

183 (2011) 91 IPR 209, 245–6 (Bennett J).

184 (2014) 105 IPR 60, 72 (Middleton J).

185 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 122 (D Mass, 2009); *Limelight Networks Inc v Akamai Technologies Inc*, 134 S Ct 2111, 2115 (2014); *Akamai Technologies Inc v Limelight Networks Inc*, 797 F 3d 1020, 1024 (Fed Cir, 2015).

186 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 122 (D Mass, 2009); *Akamai Technologies Inc v Limelight Networks Inc*, 797 F 3d 1020, 1024–5 (Fed Cir, 2015).

187 Epic, *Client Services* <<https://www.epic.com/services>>; Epic, *Contact* <<https://www.epic.com/contact>>.

188 *McKesson Technologies Inc v Epic Systems Corp* (ND Ga, Civ No 06-CV-2965, 8 September 2009) slip op 2.

189 *Ibid* slip op 2; *McKesson Technologies Inc v Epic Systems Corp*, 98 USPQ 2d (BNA) 1281 [2]–[4] (Fed Cir, 2011).

mirroring those in *Akamai* and *McKesson*, there appears to be a strong basis for a finding of procured infringement in Australia.

Returning to the uncertainty created by *Firth* and *Wellcome* (that is, statements from the High Court expressing doubt on whether the supply of a product accompanied by instructions to use the product for an infringing purpose constitutes infringement), whether the Federal Court decision of *Damorgold* would remove this doubt is debatable, especially since neither High Court decision specifically justified its doubt. Whether procured infringement is applicable, however, need not unconditionally result in liability. For instance, courts could develop the law so it only creates liability when a product has just one use or when the alleged infringer is subjectively aware of the relevant patent. Similarly, the reasoning in *Firth* and *Wellcome* could be limited to situations where the only procuring conduct is written instructions and no other procuring conduct exists. These nuanced approaches have merit, in that they do not significantly extend exclusivity for a patented method without legislative approval, but they are speculative.

The assumption that procured infringement applies to divided performance is debatable too. Like the initial US decisions on this topic, it might be that the analysis applying *Damorgold* and *Ramset* (above) incorporates a fundamental misunderstanding of patent infringement law and, therefore, divided performance in circumstances of arms-length relationships cannot constitute procured infringement. Two key differences, though, exist between procured infringement and US induced infringement law: procured infringement is not legislatively predicated on direct infringement, and it is a common law action. Thus, courts have more room to manoeuvre when applying the law. A corollary of this room to manoeuvre, however, is that predicting whether procured infringement is applicable to divided performance is riddled with uncertainty. On the one hand, it could be argued that liability should be found because it is consistent with the development of the law (as demonstrated in *Damorgold*, for example) and to hold otherwise would mean patented methods can be effectively infringed without a remedy.

On the other hand, infringement law has traditionally been narrowly conceived by courts. For instance, until section 117(2)(a) of the *Patents Act* came into effect, a patentee had no established remedy against a party who supplied a product that only had an infringing use, despite the fact there was no question that the person supplied was a direct infringer.¹⁹⁰ From this point of view, then, extending the law to divided performance might be seen by a court as an issue for the legislature. Indeed, underpinning the significance of this point, to date, procured infringement has evolved under the auspices of joint tortfeasance,¹⁹¹ yet

190 Duffy, above n 173, 221–3; Industrial Property Advisory Committee, Parliament of Australia, *Patents, Innovation and Competition in Australia* (1984) 67; Department of Science (Commonwealth), ‘Government Response to the Report of the Industrial Property Advisory Committee, “Patents, Innovation and Competition in Australia”’ (1986) 56 *Official Journal of Patents, Trade Marks and Designs* 1462, 1477.

191 See, eg, Monotti, ‘Liability for Joint Infringement’, above n 2, 320–3.

if procured infringement was found in these circumstances, presumably no joint tortfeasance would be found because only the procuring party would be liable.

In Monotti's article, she describes how only a few decisions have found procured infringement and that it is well established that mere facilitation will not result in liability. Against this background, she concludes that as long as an alleged infringer's procuring conduct results in participation in the performance of a patented method, then liability can likely be established.¹⁹² She does not, however, address: the doubt created by *Firth* and *Wellcome*; the fact the cause of action has not been approved of by the High Court; or whether procured infringement might not actually be applicable to divided performance. Perhaps these points are not as important as the analysis above indicates – reasonable minds do often differ on aspects of patent infringement. The arguments presented here, however, suggest procured infringement could only *plausibly* create liability for divided performance.

E Common Design Infringement

Common design originates from the UK case *Morton-Norwich Products v Intercen Ltd* ('*Morton-Norwich*').¹⁹³ Justice Graham outlined the cause of action,¹⁹⁴ and his Honour's judgment is generally considered instructive on its dimensions.¹⁹⁵ His Honour stated, 'two persons who agree on common action in the course of and to further which one of them commits a tort in this country are joint tortfeasors'.¹⁹⁶ In the later Court of Appeal case, *Unilever Plc v Gillette (UK) Ltd*,¹⁹⁷ Lord Mustill, with whom the rest of the Court agreed,¹⁹⁸ expanded on this point stating, there is 'no need for a common design to *infringe*. It is enough if the parties combine to secure the doing of acts which in the event prove to be infringements'.¹⁹⁹ Consistent with this passage, Lord Mustill emphasised that a key element of the suit was the nature of the relationship between alleged joint tortfeasors.²⁰⁰ Furthermore, his Honour explained that a common design to commit actions is not found based on the classification of a relationship, but on an analysis of various features of it.²⁰¹

In Australian patent law, common design has been argued in three general fact scenarios: (i) whether a parent company can be liable for a subsidiary's

192 Ibid 323.

193 [1978] RPC 501; *Mölnlycke AB v Procter & Gamble Ltd [No 4]* [1992] 1 WLR 1112, 1118; *Caterpillar Inc v John Deere Ltd* (1999) 48 IPR 1, 10 (Carr, Sundberg and Kenny JJ); *ibid* 321.

194 *Morton-Norwich Products v Intercen Ltd* [1978] RPC 501, 512–17.

195 See *Apotex Pty Ltd v Les Laboratoires Servier [No 2]* (2012) 293 ALR 272, 277 (Bennett J); *Bayer Pharma Aktiengesellschaft v Genentech Inc* (2012) 98 IPR 424, 429 (Bennett J).

196 *Morton-Norwich Products v Intercen Ltd* [1978] RPC 501, 512, see also 515 (Graham J).

197 [1989] RPC 583.

198 *Ibid* 611.

199 *Ibid* (emphasis added).

200 *Ibid* 608–9.

201 *Ibid*; see also *Caterpillar Inc v John Deere Ltd* (1999) 48 IPR 1, 13 (Carr, Sundberg and Kenny JJ); *Apotex Pty Ltd v Les Laboratoires Servier [No 2]* (2012) 293 ALR 272, 277–8 (Bennett J); *Bayer Pharma Aktiengesellschaft v Genentech Inc* (2012) 98 IPR 424, 428–32 (Bennett J).

direct infringement;²⁰² (ii) whether a supplier can be liable for a distributor's direct infringement;²⁰³ and (iii) whether a supplier can be made liable for a client's exploitation of an invention.²⁰⁴ In all instances, however, it is well-established that something more than facilitation must occur; a party must have made 'itself a party to the act of infringement'.²⁰⁵ In *Morton-Norwich*, this was found when a UK importer and Dutch distributor met regularly and formed a close working relationship to import a product into the UK that infringed a UK patent.²⁰⁶

The infringement arguments in *Akamai* and *McKesson* were both aimed at making the defendants responsible for their clients' actions. In this context, two requirements emerge that must be proven for a finding of infringement: (i) whether the features of the relationships are sufficient to be classified as a common design; and (ii) whether common design infringement can create liability for divided performance. On the first question, there are two relevant Australian cases that have been argued in the context of making suppliers responsible for their clients' infringement. Both of these have already been mentioned in this article: *CCOM*²⁰⁷ and *SNF*.²⁰⁸

In *CCOM*, the applicant controlled petty patent rights for a Chinese text display computer program.²⁰⁹ Justice Cooper found the petty patent in question was invalid on a number of grounds, including subject matter and fair basing,²¹⁰ but his Honour continued to consider infringement. Assuming the clients who used the program were direct infringers, his Honour considered whether the supply of the program coupled with an instruction manual could constitute infringement.²¹¹ On this point, Cooper J stated that, without more, sale of the

202 See, eg, *Murex Diagnostics Australia Pty Ltd v Chiron Corporation* (1994) 55 FCR 194, 205 (Burchett J); *BEST Australia Ltd v Aquagas Marketing Pty Ltd* (1988) 83 ALR 217.

203 See, eg, *Morton-Norwich Products v Intercen Ltd* [1978] RPC 501, 510–11 (Graham J); see *Apotex Pty Ltd v Les Laboratoires Servier [No 2]* (2012) 293 ALR 272, 273 (Bennett J); *Bayer Pharma Aktiengesellschaft v Genentech Inc* (2012) 98 IPR 424, 428 (Bennett J); *Caterpillar Inc v John Deere Ltd* (1999) 48 IPR 1, 10 (Carr, Sundberg and Kenny JJ). In other intellectual property regimes, it has also been used to make a director of a company personally liable for his or her company's infringement, see, eg, in trade mark, *Sporte Leisure Pty Ltd v Paul's International Pty Ltd [No 3]* (2010) 275 ALR 258, 277 (Nicholas J), or in copyright, *Cooper v Universal Music Australia Pty Ltd* (2006) 237 ALR 714, 749 (Kenny J).

204 See, eg, *CCOM Pty Ltd v Jiejing Pty Ltd* (1993) 27 IPR 577, 626 (Cooper J); *SNF (Australia) v Ciba Special Chemicals Water Treatments Ltd* (2011) 92 IPR 46, 119 (Kenny J).

205 *SNF (Australia) v Ciba Special Chemicals Water Treatments Ltd* (2011) 92 IPR 46, 116 (Kenny J); *Walker v Alemite Corp* (1933) 49 CLR 643, 658 (Dixon J), 659 (McTiernan J), quoted with approval in regard to common design in *Collins v Northern Territory* (2007) 161 FCR 549, 560–1 (French J); *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* (1999) 164 ALR 239, 258–9 (The Court).

206 [1978] RPC 501, 514 (Graham J).

207 (1993) 27 IPR 577. The infringement arguments are not recorded in *CCOM Pty Ltd v Jiejing Pty Ltd* (1993) 48 FCR 41.

208 (2011) 92 IPR 46; see also *Danisco AS v Novozymes AS [No 2]* (2011) 91 IPR 209, 244–5 (Bennett J); cf *Rotocrop International Ltd v Genbourne Ltd* [1982] FSR 241, 259–60 (Graham J).

209 (1993) 27 IPR 577; this case was appealed, but common design was not pursued: see *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260, 272–5 (Spender, Gummow and Heerey JJ).

210 *CCOM Pty Ltd v Jiejing Pty Ltd* (1993) 27 IPR 577, 577–9.

211 *Ibid* 626.

software with instructions was not sufficient to support a finding of a ‘common design’ between the parties.²¹²

In *SNF*, the relevant patent concerned the use of polymers in treating mining waste.²¹³ The case was initiated by an applicant seeking to revoke the patent,²¹⁴ and the respondent cross-claimed for various types of infringement, including common design.²¹⁵ In all, Kenny J found that the patent was valid and infringed.²¹⁶ As in *CCOM*, common design was argued on the basis that the alleged infringer supplied the polymers in question and provided instructions on how to use them to contravene the patent.²¹⁷ In addition to these facts, though, her Honour found that the suppliers engaged in a ‘joint endeavour’ with the mine operator that included developing a management strategy for treating the waste,²¹⁸ as well as ongoing testing, optimisation and advice.²¹⁹ Since Kenny J found infringement by authorisation, she stated that it was ‘unnecessary to reach any definitive conclusion with respect to [common design]’.²²⁰ Nevertheless, her Honour still stated that ‘[t]he evidence referred to above would lead me to conclude, on the balance of probabilities, that SNF participated in or joined with their customer ... in furtherance of a common design’.²²¹

In *Akamai*, the alleged infringer supplied instructions and technical support on how to use its CDN and tag web objects, but, given there is no evidence of a relationship like the ‘joint endeavour’ in *SNF*, the facts appear more akin to *CCOM*. Indeed, in the trial decision, the judge specifically described the relationship as one at arm’s length.²²² As a result, it seems unlikely that a common design would be found on the basis of the facts in *Akamai*. The analyses of the relationships between software provider, healthcare providers and patients in *McKesson* are similar. There was no evidence of anything more than arms-length relationships.²²³

Like procured infringement, common design has evolved under the auspices of joint tortfeasorship.²²⁴ Despite this common heritage, where procured infringement is based on procuring conduct, common design is based on the quality of a relationship. Thus, if a relationship is found to constitute a common design, then both parties are liable. This outcome, however, is problematic in *McKesson*: it would mean healthcare providers and patients would be liable for

212 Ibid.

213 (2011) 92 IPR 46, 46 (Kenny J); this case was appealed, but only on validity, not infringement: see *SNF (Australia) Pty Ltd v Ciba Specialist Chemicals Water Treatments Ltd* (2012) 96 IPR 365, 365–6. The case actually concerned five patents. However, the litigants agreed that the differences between them were ‘immaterial’ and conducted the case using one patent as an ‘exemplar’: at 56.

214 *SNF (Australia) v Ciba Special Chemicals Water Treatments Ltd* (2011) 92 IPR 46, 46 (Kenny J).

215 Ibid 47 (Kenny J).

216 Ibid.

217 Ibid.

218 Ibid 118–19 (Kenny J).

219 Ibid.

220 Ibid 119 (Kenny J).

221 Ibid.

222 *Akamai Technologies Inc v Limelight Networks Inc*, 614 F Supp 2d 90, 122 (D Mass, 2009).

223 *McKesson Technologies Inc v Epic Systems Corp*, 98 USPQ 2d (BNA) 1281 [7]–[12] (Fed Cir, 2011).

224 See, eg, Monotti, ‘Liability for Joint Infringement’, above n 2, 320–3.

patent infringement, even though they are not direct infringers and have simply bought a product (in the case of healthcare providers) or followed a healthcare provider's instructions (in the case of patients). Whilst patentees may be unlikely to seek remedies from these parties, courts may see the extension of liability to parties that were not previously liable and have minimal culpability as an issue for the legislature. Accordingly, it seems unlikely that a common design relationship would be found on the facts from *Akamai* or *McKesson* for two reasons: (i) the relationship is not sufficiently similar to previous common design relationships found in Australia; and (ii) it would likely involve finding liability for parties that were not previously liable and have minimal culpability.

On the second issue of whether common design is applicable to divided performance, in Graham J's articulation of the action in *Morton-Norwich*, his Honour stated that liability could arise when a common design is reached between two parties 'and to further one of them commits a tort'.²²⁵ A literal reading of this passage suggests that common design is only applicable to scenarios where one party directly infringes a patent and, therefore, is not applicable to divided performance. Furthermore, other courts have articulated similar statements in other leading common design cases, for instance in *Unilever Plc v Gillette (UK) Ltd*, Lord Mustill referred to a 'primary infringer'.²²⁶ There are, however, two counter-arguments suggesting these comments do not accurately represent the law.

First, in *Morton-Norwich*, a Dutch corporation supplied a UK company with an animal medicament that was patented in the UK.²²⁷ The UK company then directly infringed the UK patent by importing and selling the medicament in that jurisdiction.²²⁸ Thus, Graham J's statement of the law was suited to the facts, and it was not necessary for his Honour to consider the irrelevant and perhaps difficult to perceive scenario of divided performance. Indeed, this reasoning applies to all common design decisions because none have considered how the law applies to divided performance. Second, common design infringement is based on the concept that an agreement or design between two (or more) parties can make them both liable, even if one party did not participate in the direct infringement. Thus, it seems logical a court would find liability in circumstances of a common design agreement *and* divided performance because the action operates on the idea that liability for the infringing actions is shared. For this reason, then, it does seem likely, although not certain, that common design is applicable to divided performance.

In Monotti's article on infringement of method claims by separate parties, she does not specifically analyse whether the factual circumstances surrounding the relationships between the defendant and clients in either *Akamai* or *McKesson*

225 [1978] RPC 501, 512, see also 515 (Graham J).

226 [1989] RPC 583, 603, 609 (Lord Mustill); *Fabio Perini SpA v LPC Group Plc* [2010] EWCA Civ 525, [105] (Lord Neuberger); *Mölnlycke AB v Procter & Gamble Ltd [No 4]* [1992] 1 WLR 1112, 1118–19 (Lord Dillon). See also *Apotex v Les Laboratoires Servier [No 2]* (2012) 293 ALR 272, 277 (Bennett J); *Collins v Northern Territory* (2007) 161 FCR 549, 560–1 (French J).

227 [1978] RPC 501, 510–11 (Graham J).

228 Ibid 511.

are sufficient to be classified as a common design.²²⁹ She does reach a similar conclusion to that reached above, in that common design is applicable to divided performance, although she is more certain in her conclusion than what is reached in this analysis.²³⁰ Nevertheless, since Australian common design decisions between suppliers and clients indicate a close relationship is needed to prove the action, and the relationships in *Akamai* and *McKesson* were characterised as at arm's length, it therefore seems unlikely a court would find common design liability.

F Conclusion on the Australian Causes of Action

Although none of the causes of action analysed in this part clearly create liability for the facts from *Akamai* and *McKesson*, the arguments surrounding procured infringement suggest it *plausibly* could. The next part considers whether divided performance should constitute infringement in Australia and whether any law reform is warranted.

IV SHOULD THE FACTUAL SCENARIOS FROM *AKAMAI* AND *MCKESSON* CONSTITUTE INFRINGEMENT IN AUSTRALIA?

Theoretically, if a court or the federal legislature decides that it would be appropriate to clearly define infringement liability in circumstances akin to those in *Akamai* and *McKesson*, it could be achieved by various means, including the creation of a new head of liability or the alteration of a current cause of action (for example, implementing a US-style control or direction test). The analysis in Part II, however, illustrates that no specific barriers have been raised to the applicability of procured infringement, only uncertainties in its application. Arguably, then, significant changes to the current law are not warranted until it is established that procured infringement does not actually create liability.²³¹

An alternative approach to the current situation is to codify procured infringement in the *Patents Act*, drafting the provision to clearly create liability. Indeed, codification has significant merit in these circumstances since altering the current operation of the law in any marked way may adversely affect agreements (or other conduct) that were concluded prior to the change. A corollary of not altering the law in any significant way is that even if a cause of action other than procured infringement does create liability, no significant changes will have been made to the law. Before procured infringement is codified, however, two policy aspects of the law would need to be addressed to show that it is preferable: (i) that liability for divided performance via procured infringement is desirable; and (ii) that codification of procured infringement, as

229 Monotti, 'Liability for Joint Infringement', above n 2, 320–3.

230 Ibid.

231 A preference for the applicability of procured infringement to the facts from *Akamai* and *McKesson* has also been supported by Brett M Jackson, 'Bridging the (Liability) Gap: The Shift toward § 271(b) Inducement in *Akamai* Represents a Partial Solution to Divided Infringement' (2013) 54 *Boston College Law Review* 2127.

opposed to relying on the common law to find its own path, is warranted. This part of the article considers the policy arguments for the first aspect under the conventional headings of ‘for’ and ‘against’, then, finding the arguments that support liability more compelling, proceeds to consider the second aspect.

A Arguments for

One of the primary justifications for patent regimes is that the creation of property rights in inventions *ex ante* incentivises innovation. The orthodox logic supporting this justification is that since research is expensive and risky, if inventors did not have an exclusive right in their inventions that enabled them to extract a rent for the invention,²³² they would not be able to recover their research costs.²³³ A corollary of this is, as Giles Rich, a key draftsman of the US patent infringement provisions and former Federal Circuit judge,²³⁴ states, ‘[w]eaken or destroy the monopoly and you weaken or destroy the system’.²³⁵ It follows that if classes of patents are unenforceable or there is ambiguity about whether they are enforceable, then the incentive that the patent system is designed to create may diminish for those technologies.²³⁶

Of course, it is possible that the *ex ante* incentive may not be undermined because patentees might be unaware of the uncertainty surrounding divided performance; an outcome that might occur because the grant of patent rights creates a legal expectation that such rights are enforceable. This expectation, however, can create another problem: if divided performance is not enforceable, then patentees may expend significant resources translating a product only to find their patent is worthless – as would have occurred in *Akamai* if US law was not reformulated. This expectation-based argument is relevant because it aligns with one of the other common justifications for patent law: prospect theory.²³⁷ In a nutshell, this justification is based on the idea that patents create a legally enforceable proprietary interest for patentees to invest and scale-up their invention from a prototype to a polished market product.²³⁸

These arguments, with bases in the orthodox justifications for patent law, are quite strong and, therefore, form sound reasons to find liability in circumstances

232 The use of ‘rent’ here is referring to economic rent: see Kenneth W Dam, ‘The Economic Underpinnings of Patent Law’ (1994) 23 *Journal of Legal Studies* 247, 250.

233 See Industrial Property Advisory Committee, *Patents, Innovation and Competition in Australia* (Australian Government Publishing Service, Canberra, 1984) 11–14; Intellectual Property and Competition Review Committee, above n 1, 22–4; Landes and Posner, above n 1, 12–13; Robert P Merges, Peter Seth Menell and Mark A Lemley, *Intellectual Property in the New Technological Age* (Wolters Kluwer, 6th ed, 2012) 11–13; Gans, Williams and Briggs, above n 1, 437–8.

234 Giles S Rich, ‘Congressional Intent – Or, Who Wrote the Patent Act of 1952?’ in Southwestern Legal Foundation, *Patent Procurement and Exploitation: Protecting Intellectual Rights* (BNA Incorporated, 1963) 61–78. See generally Giles S Rich, ‘Infringement under Section 271 of the Patent Act of 1952’ (1953) 35 *Journal of the Patent Office Society* 476.

235 Rich, ‘Infringement under Section 271 of the Patent Act of 1952’, above n 234, 479.

236 For a similar argument, see Greskowiak, above n 90, 397–405; Harmon, above n 86, 977–81.

237 Kitch, above n 1.

238 *Ibid* 266, 276–8.

akin to *Akamai* and *McKesson*.²³⁹ This does not, however, conclude the issue. There are other factors that must be considered.

B Arguments against

A number of arguments against finding procured infringement liability in circumstances akin to those in *Akamai* and *McKesson* have been raised in US case law.²⁴⁰ Of these, two are relevant in the Australian context: (i) the use of ‘unitary claims’ makes it unnecessary; and (ii) liability of this kind would be open to abuse. Each of these arguments will be addressed in turn.

In an article by Lemley et al addressing divided performance, the authors argue that the lack of enforceability can be remedied by drafting ‘unitary claims’.²⁴¹ Unitary claims are defined by the fact that they are drafted from the point of view of *only* one actor.²⁴² For example, in a claim that includes a client and a supplier, it can be re-drafted to focus only on the supplier; ‘a client transmits a request’ becomes ‘a supplier receives a request’.²⁴³

Justice Linn, who was joined by three other judges, articulated a preference for unitary claims in his Honour’s dissenting opinion in the first *en banc Akamai* decision.²⁴⁴ On this point, Linn J added it ‘is unwise to overrule decades of precedent in an attempt to enforce poorly-drafted patents’.²⁴⁵ The primary feature of unitary claims is that, because they are able to be infringed by one party, issues related to divided performance are irrelevant. Accordingly, it may be prudent for Australian patentees to include unitary claims. For various reasons, however, unitary claims are unlikely to be a panacea for divided performance and may actually be detrimental.²⁴⁶

239 For a more detailed analysis of three more nuanced economic justifications for patent law (‘reward theory’, ‘prospective theory’ and ‘rent-dissipation theory’), see W Keith Robinson, ‘Economic Theory, Divided Infringement and Enforcing Interactive Patents’ (2015) 67 *Florida Law Review* 1961. The author examines various infringement tests applicable to divided performance and whether they are consistent with these theories. These infringement tests are unique to US law and, therefore, of limited use to Australian work on this topic. Nevertheless, the author does conclude that each theory does justify creating liability for divided performance: at 2028–9.

240 See *BMC Resources Inc v Paymentech*, 498 F 3d 1373, 1381 (Fed Cir, 2007); *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1326–33, 1338–50 (Fed Cir, 2012) (citations omitted). The arguments concerning statutory construction, legislative history, tort and criminal law are not considered in this article because they are unique to the US.

241 Lemley et al, above n 2, 272–5.

242 Ibid.

243 For more thorough examples, see *ibid* 272–3; see also Dolly Wu, ‘Joint Infringement and Internet Software Patents: An Uncertain Future?’ (2009) 91 *Journal of the Patent and Trademark Office Society* 439, 446–7, 449; see also Ken Hobday, ‘The Incredibly Ever-Shrinking Theory of Joint Infringement: Multi-actor Method Claims’ (2009) 38 *Capital University Law Review* 137, 141–5.

244 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1337, 1349–50 (Fed Cir, 2012).

245 *Ibid* 1349–50.

246 See, eg, Wu, above n 243, 466–7; Truong, above n 90, 1920; Sriranga Veeraraghavan, ‘Joint Infringement of Patent Claims: Advice for Patentees’ (2006) 23 *Santa Clara Computer & High Technology Law Journal* 211, 232 n 181. For a similar argument, see Greskowiak, above n 90, 404–6; Stephen W Moore, ‘A Last Step Rule for Direct Infringement of Process Claims: Clarifying Indirect Infringement and Narrowing Joint Infringement’ (2013) 61 *Cleveland State Law Review* 827, 848.

In *BMC Resources Inc v Paymentech*,²⁴⁷ Rader CJ writing for the unanimous Federal Circuit commented that unitary claims could capture many instances of divided performance. His Honour, however, did admit that for the method in *BMC Resources v Paymentech*, which involved input from four parties, it would be difficult to prove infringement if the claim were drafted as a unitary claim.²⁴⁸ In commentary on this case, Long Truong, a patent attorney, illustrates this issue with a US patent on computer-networked data processes and, in this scenario, suggests that it is not possible to describe the invention from the perspective of only one party.²⁴⁹ Related to this issue is a point originally made by Melissa Wasserman (and repeated by a number of other commentators). Wasserman argues that if an invention is novel or inventive because of the way it operates between separate parties or items owned by different parties (for example, a secure bill payment method between a payor, a payee and two banks),²⁵⁰ then if claimed in unitary form it may not be patentable because the claim will not recite its inventive features.²⁵¹

Wasserman also suggests that if unitary claims are of dubious validity, then patent applicants will likely include them alongside interactive claims, and that one unfortunate outcome of including both types of claims is it will increase the number of claims patent offices have to examine.²⁵² An additional aspect of this issue, not mentioned by Wasserman, is that some patent offices charge significant additional fees for claims over a certain number: the Australia Patent Office charges \$110 for each claim in excess of 20;²⁵³ and, for patentees considering European protection, the European Patent Office charges an additional €235 for each claim between 16 and 50 and €580 for each claim over 50.²⁵⁴ Thus, in addition to the usual examination costs, patents with 20 claims or more become much more expensive, something that may be critical for cash-tight companies such as start-ups or small and medium-sized enterprises. Furthermore, depending on the extraterritorial protection desired, a patent application may require significant redrafting.

If divided performance does not constitute liability in Australia, then, in addition to applicants adding unitary claims to their applications, current patent holders may want to amend their specifications to include them. In Australia, this can only occur if an amended claim ‘fall[s] within the scope of the claims of the

247 498 F 3d 1373 (Fed Cir, 2007).

248 Ibid 1381.

249 Truong, above n 90, 1919–20.

250 This example is a variation on the invention in *BMC Resources Inc v Paymentech*, 498 F 3d 1373 (Fed Cir, 2007).

251 Melissa Feeney Wasserman, ‘Divided Infringement: Expanding the Extraterritorial Scope of Patent Law’ (2007) 82 *New York University Law Review* 281, 300–1; see also Truong, above n 90, 1919–20; Veeraraghavan, above n 246, 232 n 181; Nari Lee, ‘Fragmented Infringement of Computer Program Patents in the Global Economy’ (2008) 48 *IDEA – The Intellectual Property Law Review* 345, 349; Robinson, above n 86, 105–6.

252 Wasserman, above n 251, 301.

253 *Patent Regulations 1991* (Cth) sch 7 pt 2 item 213.

254 European Patent Office, *Schedule of Fees*, EPO Online <<http://www.epoline.org/portal/portal/default/epoline.Scheduleoffees>>.

specification before amendment'.²⁵⁵ In effect, this requires that the new claims would constitute infringement of the old claims.²⁵⁶ This legal test is problematic for the addition of unitary claims because if interactive claims cannot be infringed by a single entity, logic seems to dictate that unitary claims, which focus on one entity, will not fall within the scope of interactive claims. Or, demonstrating this problem on a claim integer level, if a claim prior to an amendment includes a step of a 'client sending a request' and a new unitary claim does not specify a client doing this, it is difficult to say that the old step is performed and the claim infringed. As a result, if a current patent only consists of interactive claims, then it may be difficult for a patentee to amend it and include unitary claims.

More generally, it seems inappropriate to create an invention, describe it as thoroughly as possible in a patent specification, claim the way it works in the clearest and broadest language possible, then have to morph it into something else to fit a legal rule that serves limited utility. Indeed, this commentary resonates with dicta from Newman J in her Honour's dissenting judgment in the first *en banc Akamai* decision:

I do not discourage ingenuity, but the presence or absence of infringement should not depend on cleverness or luck to satisfy a malleable single-entity rule. The Court in *Dawson Chemical Co v Rohm & Haas Co*, 448 US 176 (1980), discussing the law of contributory infringement, cautioned lest 'the technicalities of patent law' enable persons 'to profit from another's invention' by performing 'acts designed to facilitate infringement by others'.²⁵⁷

As a result, although unitary claims will likely be useful in many circumstances, for the foregoing reasons they should not be relied upon as a solution to create liability for divided performance.

The second argument against procured infringement creating liability for factual scenarios akin to those in *Akamai* and *McKesson*, is that liability of this kind would be open to 'abuse'. This argument was outlined by Newman J in the first *en banc* decision too. Her Honour's primary argument was that the conduct that may constitute procured infringement is too broad.²⁵⁸ In particular, her Honour commented that the 'potential for abuse looms large, for the majority does not require proof of direct infringement, but holds that the entity that advises or enables or recommends the divided [performance] is fully responsible for the consequences of the direct infringement'.²⁵⁹ Whilst this concern might be applicable in the US, the threshold that needs to be proved to attribute infringing conduct to another in Australia is quite high. Reiterating a point already made, the Court in *Ramset* said mere facilitation is not enough for procured infringement, an infringer must effectively make themselves part of the infringing conduct.²⁶⁰ Demonstrating this high threshold, the case of *CCOM*

255 *Patents Act 1990* (Cth) s 102(2)(a); see also Wu, above n 243, 462–3.

256 *Boehringer Ingelheim International v Commissioner of Patents* [2000] FCA 1918, [18]–[19] (Heerey J).

257 *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1325 (Fed Cir, 2012) (citations omitted).

258 *Ibid* 1333 (Newman J).

259 *Ibid*.

260 *Ramset Fasteners (Aust) Pty Ltd v Advanced Building Systems Pty Ltd* (1999) 164 ALR 239, 253, 258.

indicates that merely supplying a product and providing instructions on how to use the product in an infringing way is not enough; something more must occur.²⁶¹

C Conclusion on Policy Arguments

Overall, the analysis of policy issues in this part suggests that there are valid arguments to be made concerning unitary claims and abuse, but, when considered in context, they do not overcome the economic rationale supporting liability. In light of this conclusion, and with reference to the uncertainties outlined in Part III, the next logical question is whether procured infringement should be codified to clarify its operation, or whether the common law should be left to develop on its own.

D Codify Procured Infringement?

One of the general arguments for codification is that the common law evolves slowly, in a piecemeal approach, does not necessarily use comprehensive policy to guide it, and relies heavily on legal precedent. As Professor Dratler, the author of two treatises on US intellectual property,²⁶² has observed:

Common law decision making is inevitably *ad hoc*. It relies on general principles of justice and common sense. Its tools are analogy and distinction based on facts. By using these tools, courts mimic – on a much smaller scale and for a much smaller subset of factual contingencies – the comprehensive factual inquiries that legislatures are supposed to undertake before prescribing more comprehensive and general rules in statutes.²⁶³

Related to Dratler's arguments, former Chief Justice French, writing extra-curially, has stated that the primary purpose of a court is to interpret and apply the law, and that courts are often reluctant to engage with policy.²⁶⁴ In light of French's and Dratler's comments, codification presents the opportunity to clarify liability in circumstances like those raised in *Akamai* and *McKesson*, as well as providing the opportunity to craft procured infringement laws consistent with patent policy. This second point is important because, beyond the arguments in this article, there are various aspects of procured infringement law that are not necessarily clear and which warrant review from a policy perspective. For example, the US equivalent of procured infringement, induced infringement, requires a mental element:²⁶⁵ should it in Australia?²⁶⁶ Similarly, should liability

261 (1993) 27 IPR 577, 626 (Cooper J).

262 See Jay Dratler, *Intellectual Property Law: Commercial, Creative and Industrial Property* (Law Journal Press, 1991); Jay Dratler, *Licensing Intellectual Property* (Law Journal Press, 2017).

263 Jay Dratler, 'Common-Sense (Federal) Common Law Adrift in a Statutory Sea, or Why *Grokster* Was a Unanimous Decision' (2006) 22 *Santa Clara Computer & High Technology Law Journal* 413, 420.

264 See generally R S French, 'Dolores Umbridge and Policy as Legal Magic' (2008) 82 *Australian Law Journal* 322.

265 See generally *Global-Tech Appliances Inc v SEB SA*, 131 S Ct 2060 (2011).

266 This topic has received a lot of commentary in the US: see Mark A Lemley, 'Inducing Patent Infringement' (2005) 39 *University of California Davis Law Review* 225; Tal Kedem, 'Secondary Liability for Actively Inducing Patent Infringement: Which Intentions Pave the Road?' (2007) 48 *William and Mary Law Review* 1465; Michael N Rader, 'Toward a Coherent Law of Inducement to Infringe: Why

or remedies be altered if parties hold a bona fide belief a patent was invalid?²⁶⁷ Related to these issues, it might also be useful to have clarification on how joint and several liability and remedies operate when procured infringement is found with multiple parties.²⁶⁸

Another advantage of legislation is that it can clarify rights immediately. This means that the time and effort that may go into arguing legal or factual aspects of cases analogous to *Akamai* and *McKesson* before various courts could be avoided, as would any uncertainty that may permeate legal advice. Consistent with this advantage, the Australian Law Reform Commission has previously stated that '[t]he first way to reduce the cost [of litigation] is to eliminate the opportunity for disputes to arise. Uncertainty or obscurity of the law may contribute to the existence of a dispute'.²⁶⁹ Despite this, an issue that complicates this advantage is, if procured infringement was to be codified, feedback from stakeholders would be needed on whether it should only have prospective effect, or whether it should have retrospective effect as well. Although it would be desirable only to have one law relating to procured infringement, if, beyond the divided performance issue, patentees believed that the codified cause of action changed what they thought their rights were, it may be a good idea to limit the provision to a prospective effect.

More broadly, the idea of clarifying rights in patents overlaps with James Bessen and Michael Meurer's argument that if patents are to operate efficiently as property rights, then the boundaries of what constitutes infringement should be demarcated as clearly as possible.²⁷⁰ The authors contend that if patent rights are not clearly demarcated then uncertainty of this type can lead to costly litigation and other transaction costs that undermine the value of a patent, and more broadly, impair the operation of the patent system.²⁷¹ Indeed, it is very likely that for parties that are commercialising IT and internet-orientated communications technologies, clarity on this point of law would be much appreciated.

Related to the notion of reducing uncertainty, Professors Mark Janis and Timothy Holbrook argue that since many people interact with patent law but are

the Federal Circuit Should Adopt the *Hewlett-Packard* Standard for Intent under s 271(b)' (2001) 10 *Federal Circuit Bar Journal* 299, 320–6; Timothy R Holbrook, 'The Intent Element of Induced Infringement' (2006) 22 *Santa Clara Computer & High Technology Law Journal* 399, 404–7; Jason A Rantanen, 'An Objective View of Fault in Patent Infringement' (2011) 60 *American University Law Review* 1575; Jacob S Sherkow, 'Patent Infringement as Criminal Conduct' (2012) 19 *Michigan Telecommunications and Technology Law Review* 1; Charles W Adams, 'Indirect Infringement from a Tort Law Perspective' (2008) 42 *University of Richmond Law Review* 635; Lynda J Oswald, 'The Intent Element of Inducement to Infringe under Patent Law: Reflections on *Grokster*' (2006) 13 *Michigan Telecommunications and Technology Law Review* 225.

267 See generally *Commil USA LLC v Cisco Systems Inc* (S Ct, No 13-896, 26 May 2015); Timothy R Holbrook, 'The Supreme Court's Quiet Revolution in Induced Patent Infringement' (2016) 91 *Notre Dame Law Review* 1007.

268 See generally *The Kourask* [1924] P 140; *Akamai Technologies Inc v Limelight Networks Inc*, 692 F 3d 1301, 1330–1 (Newman J) (Fed Cir, 2012); Dmitry Karshedt, 'Damages for Indirect Patent Infringement' (2014) 91 *Washington University Law Review* 911.

269 Law Reform Commission, *Annual Report 1990*, Report No 54 (1990) 70 [7].

270 James Bessen and Michael J Meurer, *Patent Failure* (Princeton University Press, 2008) 47–52.

271 *Ibid* ch 2.

not experts in it (for example, scientists and business development managers), where practicable, patent law should be simplified so that they can understand it.²⁷² In this context, the law relating to procured infringement leaves much to be desired, most notably, procured infringement is not recorded in the *Patents Act*. Some Australian intellectual property textbooks do not refer to it either.²⁷³ Codification would make it easier to identify the cause of action, removing the need to refer to several cases to understand the basic elements of the action. In short, codification of a common law form of infringement, especially one that is seldom used or acknowledged, is a paradigm example of simplifying law to enhance its operation.

It should also be acknowledged that this is not the first scholarly work to advocate for codification of procured infringement. In 1979, the then Minister for Productivity asked the Industrial Property Advisory Committee, at the time the independent government body appointed by the Australian government, to review the patent system.²⁷⁴ Prior to the Industrial Property Advisory Committee writing their report, they sought expert advice on a variety of areas and commissioned Monash University to report on a number of issues.²⁷⁵ This report comprehensively addressed infringement causes of action across many jurisdictions.²⁷⁶ It recognised procured infringement as emerging from the common law and concluded that it should be codified.²⁷⁷

A classic argument against codification is that the common law is more fluid and can evolve to meet changing values and practices over time.²⁷⁸ However, the problem with this argument, in the context of procured infringement, is that such actions are infrequent in Australia and require the expense of litigation. Moreover, as outlined above, the basis for procured infringement has been part of the English common law since the 19th century,²⁷⁹ and no significant changes to the law are being advocated for here, rather what is being sought is clarification consistent with patent policy.

Codification does carry a risk of unintended consequences,²⁸⁰ and this concern appears more palpable when one observes that such consequences have

272 Mark D Janis and Timothy R Holbrook, 'Patent Law's Audience' (2012) 97 *Minnesota Law Review* 72, 76–89.

273 See, eg, Kathy Bowrey et al, *Australian Intellectual Property: Commentary, Law and Practice* (Oxford University Press, 2nd ed, 2015) 536–52; Rocque Reynolds, Natalie Stoianoff and Alpana Roy, *Intellectual Property: Text and Essential Cases* (Federation Press, 5th ed, 2015) 387–401; cf Mark J Davison, Ann L Monotti and Leanne Wiseman, *Australian Intellectual Property Law* (Cambridge University Press, 2nd ed, 2012) 569–70.

274 Dufty, above n 173.

275 Ibid.

276 Ibid 209–79.

277 Ibid 216, 277–8; see also Ann L Monotti, 'Infringement of a Patent by Authorisation: Clear or Muddy Waters?' (2013) 24 *Australian Intellectual Property Journal* 5, 11–13.

278 See, eg, Attorney-General's Department, 'Should Contract Law Be Codified?' (Infolet 4) <<https://www.ag.gov.au/Consultations/Documents/ReviewofAustraliancontractlaw/Shouldcontractlawbecodified.pdf>>.

279 *Innes v Short* (1898) 15 RPC 449, 451–2 (Bingham J); *Townsend v Haworth* (1879) 48 LJ Ch 770, 770–1; *Gibson v Brand* (1842) 1 WPC 627, 631 (Tindal CJ).

280 I would like to acknowledge an anonymous reviewer for raising this point.

occurred with the creation of both infringement by authorisation and supply infringement under section 117(2)(b).²⁸¹ Furthermore, this argument increases in force by the fact that divided performance is yet to be litigated in Australia; does this article advocate a solution to a problem that does not exist and that carries risks of unintended consequences? Divided performance has, however, been successfully litigated in the US since *Akamai* was concluded and is currently pursued in other cases.²⁸² It is therefore reasonable to assume that divided performance is occurring in Australia, and that patentees are unnecessarily coping with the uncertainty surrounding it. Moreover, framing divided performance as a solution to a problem that does not exist misses the point that creating liability for it is a simple application of the orthodox justifications for patent law.

Focusing more specifically on unintended consequences, section 117(2)(b) was implemented despite not being specifically considered by the then government's IP committee,²⁸³ and courts created infringement by authorisation even though it was not intended by Parliament.²⁸⁴ Learning from these mistakes, several precautions could be taken to reduce the chances of unintended consequences arising in any codified provision, including: developing the provision with feedback from stakeholders; a clear outline in extrinsic material of the provision's objectives and, after several years, a review of the provision's operation. Fortunately, recent patent reform indicates various parties now routinely undertake these precautions.²⁸⁵

V CONCLUSION

The primary rationale for patent systems is that they incentivise innovation by creating intangible property rights in inventions. If a third party can effectively implement an invention without authorisation from a patentee, yet not be liable for infringement, then the incentive element of patent law is undermined. This article demonstrates that there is no clearly defined liability pathway for divided performance in Australia but does suggest that procured infringement is plausibly applicable. Moreover, it suggests that the best way to resolve this lack of clear infringement liability for inventions like those in

281 See generally Liddicoat, above n 146; Monotti, 'Infringement of a Patent by Authorisation', above n 277.

282 See, eg, *Eli Lilly & Co v Teva Parenteral Medicines, Inc*, 845 F 3d 1357 (Fed Cir, 2017); *International Business Machines v Priceline Group Inc* (D Del, CA No 15-137-LPS, 18 September 2017) 15.

283 Liddicoat, above n 146, 167.

284 Monotti, 'Infringement of a Patent by Authorisation', above n 277, 11. More generally, in 1992, Professor Sam Ricketson described the formulation of new IP laws in Australia as 'haphazard' and 'inadequate': see Sam Ricketson, 'The Future of Australian Intellectual Property Law Reform and Administration' (1992) 3 *Australian Intellectual Property Journal* 3, 4-5.

285 See, eg, Explanatory Memorandum, Intellectual Property Laws Amendment (Raising the Bar) Bill 2011 (Cth); Advisory Council on Intellectual Property, 'Patentable Subject Matter' (Final Report, December 2010); Community Affairs References Committee, Senate, *Gene Patents* (2010); Legal and Constitutional Affairs Legislation Committee, Senate, *Patent Amendment (Human Genes and Biological Materials) Bill 2010* (2011).

Akamai and *McKesson* is to codify procured infringement, specifying that it is applicable to divided performance. Statutory codification would unavoidably involve detailed discussions on aspects of the law beyond those addressed in this article. In the interest of providing clear legal rights for those that use patent law, however, this is a desirable goal.

What is proposed here is not radical, or even freethinking. The principles emerged from case law in the 1800s, and, due to the evolution of technology and business structures, have even greater relevance today.