

Patent Infringement by Trans-National Distributed Systems: A Similar Trans-Atlantic

Approach?

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Summary:- The prospect of patent infringement by the use of “trans-national distributed systems”, by which we mean a system wherein elements of the claimed system can be located within different countries without the operation of the system being affected, has been uncertain, as being potentially in conflict with the inherent territorial nature of patents. However, in two relatively recent Appeal Court decisions in the UK and US respectively the situation has been at least partially clarified, and definitely in favour of the patentee.

Firstly in the United States the Court of Appeals for the Federal Circuit (CAFC) issued in August 2005 a revised opinion in the case of *NTP Inc. v Research In Motion Ltd*, a.k.a. the Blackberry case, which sets out unequivocally that for inventions claimed in the form of systems then use of the claimed system can be taken to occur in the United States for the purpose of patent infringement even if an element of the claimed system is located physically outside the borders of the United States. However, for inventions claimed as methods no such considerations apply, and the claimed method steps must all be performed within the United States for there to be patent infringement. The decision is likely to be appealed to the Supreme Court.

In a similar vein, however, in the United Kingdom in 2002 the Court of Appeal in *Menashe Business Mercantile Ltd & others v William Hill Organization Ltd* allowed that use of an invention occurred in the UK even if the actual elements performing the claimed operations were located outside the UK. In that case the judge stated that all that mattered was where the actual user of the invention was located, and if that was in the UK then the invention was used in the UK. Although the case was decided specifically in respect of a system claim, the reasoning can be equally applied to method claims.

It is generally well known that patents only have effect in the country for which they were granted. That is, a patent will generally only protect the patent owner from infringing acts which are performed in the country to which it applies - the so-called “territorial” nature of patents. Historically such provisions have caused few problems, as although the usual questions would arise as to whether a particular accused device or process would fall within a patent’s claims, it would often be clear that the accused device or process was actually located, sold, or performed in a particular country. With the growth of modern communications networks which transcend historical

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national borders, however, there arises a new class of inventions wherein it is not so clear as to where a patented device or process is actually being made or used: the trans-national distributed system.

In this context, by “trans-national distributed system” we mean a system wherein elements of the claimed system can be located within different countries without the operation of the system being affected, i.e. not all the elements of the system, or not all the steps of its operation lie wholly within one country or jurisdiction. Such systems commonly make use of Internet technology, for example to provide client-server type systems where the server is located in a different country to the client, and the communication between the two is via the Internet. Other system architectures can also fall within the class, however, such as peer-to-peer systems. The defining element is that elements of the system are located in different countries, and operation of the system makes use of those different elements.

The problems posed by such systems are familiar to patent lawyers working in the field at present, and a common approach is to try and define separate independent patent claims for the individual elements of the system. Thus, in a client-server type system, instead of claiming both the client and the server in a single independent claim, separate claims to the client and to the server would be drafted (together with separate method claims to their individual methods of operation). Thus provided that patents were obtained in at least one of the countries in which an independently claimed element of the system is located, it would usually be possible to establish a case for infringement. However, such claims may provide relatively straightforward design-around opportunities, and particularly so if a claimed processing step can be moved from one element of the system to another.

Until the massive growth of the Internet occurred around the turn of the century it was common for patents relating to such distributed systems to be drafted with unitary claims including all of the elements of the system e.g. both client and server. A suggested reason for this is that the “client-server” model so prevalent today as a result of Internet applications was not so prevalent in the past. Moreover, for some inventions it may only be the aggregation of all of the elements of the system which may be deemed inventive, and so such a unitary claim formulation is used to ensure

that a patent is granted in the first place. When a competitor then went on to make use of such systems, there had been some uncertainty as to whether, due to the location of the infringing devices, as a matter of law such infringement could occur. Such uncertainty has now been removed, at least in the United States, by a revised Opinion of the Court of Appeals for the Federal Circuit (CAFC) in the well-known *BlackBerry* case (*NTP Inc. v Research In Motion Ltd*²).

Unless you have been on a long space voyage for the last few years you probably know of BlackBerry devices. A variant of mobile telephone, BlackBerry devices not only allow their users to make conventional telephone calls, but also to have mobile email access through the BlackBerry “push” technology. The “push” technology ensures that emails destined for a user’s email account are automatically retrieved and forwarded to the mobile device. The technology also allows for users to send emails from the mobile BlackBerry device to other users of BlackBerry devices, or to conventional email accounts.

In November 2001 the Canadian company Research In Motion Ltd (RIM), which produces the BlackBerry devices, was sued by NTP Inc. for infringement of five US patents which had been assigned to NTP, and which NTP alleged covered the BlackBerry system. Although there were many issues to be decided, one of the main issues was that one of the integers of the BlackBerry system required to read on to the claims for there to be infringement, the BlackBerry Relay, was not located in the United States. Instead, the Relay was located in Canada. The whole BlackBerry system could therefore be thought of as a trans-national distributed system of the type discussed earlier.

At first instance in the District court the jury found in favour of NTP, and awarded in excess of \$50 million in damages against RIM. On appeal to the Federal Circuit, however, after issuing a first opinion which dealt with the issue in little detail, the CAFC took the opportunity to consider in detail the concept of infringement by trans-national distributed systems, and issued detailed guidance as to when such infringement might occur. Interestingly, however, the CAFC in a triumph of form

² see <http://fedcir.gov/opinions/03-1615r.pdf>

over substance took different views as to whether infringement could occur as a matter of law dependent on whether the invention was claimed as a method or system.

As is well known, there are essentially two types of patent claim: a claim to an actual thing such as a system (even one which is distributed between different countries) and a claim to a method or process, being a series of steps or acts to be performed. Within the opinion the CAFC made distinction between the two claim types and came to different conclusions for each type as to whether such claims may be infringed as a matter of law where at least one of the integers of such claims are located outside the jurisdiction.

In summary, the CAFC held that system claims can be infringed by "use" of such a system in the US, even where an element of the system is located abroad. In particular *"(t)he use of a claimed system... is the place at which the system as a whole is put into service i.e. the place where control of the system is exercised and beneficial use of the system obtained."*³. In the RIM case, *"RIM's customers located within the United States controlled the transmission of the originated information and also benefited from such an exchange of information"*⁴. Moreover, *"(w)hen RIM's United States customers send and receive messages by manipulating the handheld devices in their possession in the United States, the location of the use of the communication system as a whole occurs in the United States. This satisfactorily establishes that the situs of the "use" of RIM's system by RIM's United States customers for purposes [of patent infringement] is the United States"*⁵. Thus, infringement of a system claim by "use" could occur, notwithstanding that part of the system was located abroad.

For method claims, however, the CAFC decided the opposite, holding that for infringement by "use", each of the claimed method steps had to actually be used "within" the United States. This was *"(b)ecause a process is nothing more than the sequence of actions of which it is comprised, the use of a process necessarily involves doing or performing each of the steps recited. This is unlike use of a system as a*

³ cf. p.56, 2nd para

⁴ cf *ibid*

⁵ cf p.57, 1st para

whole, in which the components are used collectively, not individually."⁶. Thus, for infringing "use" of a method, the "use" has to be within the US.

The Court also considered whether method claims could be infringed by "sale" or "offers to sell". Here, they reviewed legislative history which indicated clearly that method claims could only be infringed through "use", and also what was actually meant by "sale" in the context of a method. Whilst not ruling out that method claims could ever be infringed through the "sale" of, or "offers to sell", the Court held that merely performing some steps of a method as a service to its customers was not "sale" or an "offer to sell"⁷. Similar reasoning was also used to come to the same conclusion regarding the infringing act of "importing" a method.

Similarly, the Court also considered the infringing acts of supplying components of a patented invention, and also of importing, selling, or using in the US products obtained directly from a patented process. In each case the Court found that infringement of the method claims by such acts was not possible, in the first case because *"it is difficult to conceive of how one might supply or cause to be supplied all or a substantial portion of the steps of a patented method"*⁸, and in the second case because *"the 'transmission of information'...does not entail the manufacturing of a physical product"*⁹, which it had been held previously was a prerequisite for the infringing acts to apply.

The distinction between method and system claims made by the Court is an interesting one, not only because it should affect patent claim drafting practice, but also because it appears to be slightly artificial, overly focusing on the form of the claim. The finding of the Court that a method claim is necessarily formed of individual steps is clearly correct, but the implicit notion that somehow these steps are each performed in isolation outside the context of the whole invention seems slightly absurd. Instead, a patented method is usually performed to obtain the fruits of whatever that method produces as a whole, and hence there seems no real need to depart from the reasoning used in respect of system claims: if the effect of performing

⁶ cf p.58, 2nd para

⁷ cf pp 62-3

⁸ cf p.67, 1st para

the method is achieved within a particular country, then surely the method is “used” in that country. Such an approach treats an invention as a coherent whole, rather than relying on what is often the arbitrary distinction between system and method claim formulations for such systems.

It should also be noted that at the time of writing in October 2005, the CAFC’s decision is likely to be appealed to the Supreme Court.

The *NTP v RIM* opinion bears comparison with the UK Court of Appeal decision in *Menashe Business Mercantile Ltd & others v William Hill Organization Ltd*¹⁰. Here, William Hill supplied customers in the UK with a CD containing a program which the customers installed on their own computers, and which then allowed them to use William Hill’s on-line gaming system, the servers for which were located in Antigua. Menashe sued William Hill in the UK for contributory patent infringement, alleging that the CD was a “means, relating to an essential element of the invention, for putting the invention into effect”, and that the invention was put into effect in the UK.

The parties agreed that the CD was an essential element, but disputed that the invention was put into effect in the UK, due to the server being located in Antigua. The first instance judge found in favour of Menashe, for the reason that otherwise there would be a “hole” in the patentee’s protection as infringement would not occur in any country. On appeal Aldous LJ affirmed the first instance finding, but for different reasons.

In Aldous LJ’s view, “*(i)t would be wrong to apply the old ideas of location to inventions of the type under consideration in this case.*” Instead, “*(i)t is pertinent to ask who uses the claimed gaming system. The answer must be the punter. Where does he use it? There can be no doubt that he uses his terminal in the United Kingdom and it is not a misuse of language to say that he uses the host computer in the United Kingdom. It is the input to and output of the host computer that is important to the punter and in a real sense the punter uses the host computer in the United Kingdom even though it is situated in Antigua and operates in Antigua.*” .

⁹ cf p.69, 1st para

Counsel for William Hill objected that such a finding would mean that direct infringement by use would occur, but that such infringement had not been alleged. Aldous LJ dismissed this objection, commenting merely that “(T)hat may be because *Menashe* have no need to litigate against users, but in any case that submission does not provide a reason to reject the construction.” . Thus, Aldous LJ opened the door not only to contributory infringement, but also to direct infringement being found to occur.

Comparing the *William Hill* and *BlackBerry* cases, both Courts of Appeal came down in the pro-patent camp, allowing for direct infringement by use of a patented system to occur, even though an element of the claimed system is located abroad. Such a finding makes economic sense, as in fact it is the commercial exploitation of the invention within the patented territory which tempts the alleged infringer to set up the system for use: if the system were only really being “used” within its geographic locale, one doubts the infringer would bother to set up the system in the first place. However, the *BlackBerry* decision, as noted above, makes perhaps an overly fine distinction between infringement of method claims and of system claims to such inventions, and which it is difficult to see the English Patents Court following. Although *William Hill* admittedly dealt with an alleged case of contributory infringement of a system claim, Aldous LJ made it clear that all that really mattered was the location of the user of the system, and such reasoning does not rely on whether the invention is formally claimed in system or method form: it is easy to see the same reasoning applied to find direct infringement by use of a process.

In conclusion, then, both the *William Hill* and *BlackBerry* decisions in their own jurisdictions clarify the law on patent infringement of trans-national distributed systems in favour of the patentee, although *William Hill* in the UK arguably goes further and provides better protection by not making the distinction between method and system claims. Nevertheless, the CAFC’s finding in respect of system claims should be welcomed by prospective patentees, as it allows distributed systems to be

¹⁰ [2002] EWCA Civ 1702

claimed in unitary format, without forcing a potential arbitrary division of features between separate “client-server” or “peer-peer” independent claims.