CSIRO wins Wi-Fi patent litigation

By Matthew Rimmer

The United States District Court for the Eastern District of Texas has provided a summary judgment in favour of CSIRO, ruling that its patent relating to a Wireless Local Area Network was valid, and had been infringed by Buffalo Technology. According to Dr Matthew Rimmer*, the decision is a fillip for the business and scientific credibility of CSIRO.

The Commonwealth Science and Industrial Research Organisation (CSIRO) is the national research agency of the Australian government. This public research organisation undertakes scientific research for the purpose of assisting Australian industry, furthering the interests of the Australian community and contributing to the achievement of national objectives. CSIRO has a long history of expertise in the field of wireless technology.

“For example, as far back as July 1969, CSIRO helped bring the television pictures of the Apollo 11 Moon landing to a worldwide TV audience of 600 million people”, chief executive officer Dr Geoff Garrett said. “In 1970, we helped Apollo Astronauts Jim Lovell, Jack Swigert and Fred Haise get home on Apollo 13 by making our Parkes radio telescope available to communicate with the stricken spacecraft.”

CSIRO has been interested in developing scientific inventions to improve communications systems and provide sensor capability for new and innovative industrial applications.

Dr Alex Zelinsky said that the organisation was committed to reaping the commercial benefits of its work in relation to wireless technology: “Back in 1989 a small group of guys started work on wireless LANs, at a time when most people would have been happy just to get their computers hooked up to a printer over a network. Shortly after that, CSIRO lodged some basic patents in that area and then an offer came to start a company, which CSIRO chose not to participate in but did license its technology. CSIRO missed out on that opportunity and things went on. Interestingly, the basic patent stayed with CSIRO and [it] is now negotiating with a number of vendors to enforce that patent — a very valuable piece of intellectual property.”

In November 1993 CSIRO filed for a patent in respect of a “wireless local area network” in the United States Patent and Trademark Office. In January 1996 the research agency was granted US Patent No 5,487,069.

The abstract provides a sense of the nature of the invention: “The present invention discloses a wireless LAN, a peer-to-peer LAN, a wireless transceiver and a method of transmitting data, all of which are capable of operating at frequencies in excess of 10 GHz and in multipath transmission environments. This is achieved by a combination of techniques which enable adequate performance in the presence of multipath transmission paths where the reciprocal of the information bit rate of the transmission is short relative to the time delay differences between significant ones of the multipath transmission paths. In the LANs the mobile transceivers are each connected to, and powered by, a corresponding portable electronic device with computational ability.”

The patent application stresses that such a “wireless local area network” would be particularly useful to enable computers to be portable.

Patent litigation

In February 2005 CSIRO took legal action for patent infringement against Buffalo Technology, a Japanese-owned company, which had refused to pay licence fees.

Dr Geoff Garrett commented on the action: “As part of our business we create high quality intellectual property and we are prepared to defend it. We actively encourage the utilisation of the results of research in industry and communities, both nationally and globally, and any royalty income will be reinvested in further research.”

To further complicate matters, a number of information technology companies — including Microsoft, Dell, Hewlett Packard, Intel, Apple and Netgear — brought legal action against the CSIRO, questioning the validity of the United States patent.

In CSIRO v Buffalo Technology (Case No 6:06CV-324), Justice Leonard Davis of the United States District Court for the Eastern District of Texas considered the litigation between the Australian research agency and Buffalo Technology. He specialises in patent law matters because of his degrees in law, mathematics, and management. On 13 November 2006, Justice Davis handed down a summary judgment in favour of CSIRO, finding that its patent was valid, because it was not anticipated or obvious nor did it lack support in the written specifications. Furthermore, the judge made a summary judgment, ruling that the patent had been infringed by Buffalo Technology.

On the question of patent validity, Davis rejected the assertion of Buffalo’s expert, David Bagby, that publications by Wilkinson and Bingham anticipated the work of CSIRO. The judge also dismissed the claims that Bagby’s report and declaration established that the wireless patent was obvious.

“First, the Court concludes that the conclusory statements in the Bagby Declaration and the Bagby Report do not raise a genuine issue of material fact”, Davis said. “Second, Buffalo has not proffered specific evidence as to the source of a teaching, suggestion, or motivation to combine the prior art references. Buffalo has simply stated that multipath is common in indoor and outdoor radio communications and that persons skilled in the art naturally consider patents and IEEE publications in seeking technical information. Absent, however, is identification of any specific evidence in the combinations of references (or anywhere else in the record) that suggests combining them in a manner that results in the claimed subject matter.”

The judge ruled that “Buffalo has failed to demonstrate by clear and convincing evidence that the written description of the Australian application could not or does not reasonably convey to one skilled in the art that the inventors were in possession of the claimed subject matter of the claims”. Davis found that the accused Buffalo products – including mobile products, hub products and other products, had directly and literally infringed a number of claims of the CSIRO patent (including claims 42-48, 56-50, and 68-72).

Conclusion

CSIRO Chief Executive Geoff Garrett was triumphant about the result in the United States District Court for the Eastern District of Texas. “This is an important win because the judge has supported CSIRO’s position comprehensively”, he said. “We are obviously very pleased. However, it is only a brick in the wall — CSIRO still has a long way to go.”

Garrett observed that the market for Wireless Local Area Network products was large and growing, and many manufacturers were using CSIRO’s technology without permission or licence. He expressed the hope that the court would determine a reasonable royalty rate shortly. The decision can of course be appealed on a point of law to the Federal Circuit. However, Buffalo Technology must be weighing whether such a course of action would be worthwhile, given the strongly worded judgment.

The decision of the United States District Court for the Eastern District of Texas also strengthens the position of CSIRO in its litigation with other technology companies — including Microsoft, Dell, Hewlett Packard, Intel, Apple and Netgear. The litigation may encourage companies to obtain licences from CSIRO rather than risk the costs associated with potential patent actions. The ruling of the United States District Court for the Eastern District of Texas reinforces both the scientific credibility and the business acumen of CSIRO.