The Century City Lawyer

A Publication of the Century City Bar Association

March 2003 Volume 12, No 3

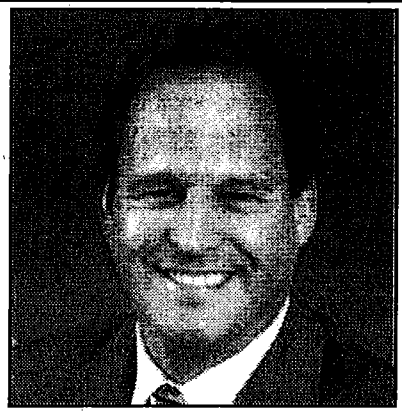
CCBA HAS JOINED THE 21ST CENTURY:
VISIT OUR WEBSITE AT WWW.CENTURYCITYBAR.COM AND JOIN ONLINE

The Law of Unintended Consequences: How the DMCA's Anti-Circumvention Provisions are Being Used to Circumvent Anti-Tying Law

Joel Voelzke

Introduction

Suppose Lexmark, the maker of computer printers, included a shrink wrap license with its printers that provided, "*The computer software which resides within this printer is protected by copyright. By purchasing this printer, you are receiving only a limited license to the software. Under that limited license, you must use only genuine Lexmark toner cartridges with this printer.*" That shrink wrap license would clearly be unenforceable under the traditional doctrine of copyright misuse. A copyright holder commits copyright misuse when it uses the monopoly power of its copyright to force purchasers to also purchase non-copyrighted products.



Joel Voelzke

continued on page 16

CCBA CALENDAR OF EVENTS

CCBA WELCOMES YOUR MEMBERSHIP -- MORE INFORMATION INSIDE
SEE EXPANDED MEMBER BENEFITS

continued from page 1

The doctrine of copyright misuse, or patent misuse in the patent context, prohibits such tying arrangements. When combined with market power, copyright or patent misuse can form the basis for an antitrust violation.

A new case, however, suggests that Lexmark can accomplish essentially the same tying result by merely adding a computer chip to its toner cartridges that exchanges a "secret handshake" with the printer software to enable the printer, and invoking the Digital Millennium Copyright Act (DMCA). According to the court in *Lexmark International, Inc. v. Static Control Components, Inc.*, No. 02-571-KSF (E.D. Ky. Feb. 27, 2003), anyone who sells a toner cartridge or a chip for such a cartridge that mimics the Lexmark secret handshake violates the DMCA because mimicking a secret handshake amounts to circumventing a technology measure designed to prevent access to a copyrighted work.

The case has far-reaching implications. Under the court's reasoning, there would be no reason why other equipment manufacturers could not embed computer chips in all manner of replacement parts, and invoke the DMCA to prevent after-market manufacturers from selling compatible replacement parts. Automobile manufacturers, for example, could use secret handshakes to eliminate competition for replacement tires, wiper blades, and other automotive parts. Makers of battery operated devices such as cell phones could eliminate competition for replacement batteries. In short, the case provides a roadmap as to how a company can use the DMCA's anti-circumvention provisions to circumvent anti-tying law. Whether the Court of Appeals will uphold the district court's grant of a preliminary injunction remains to be seen.

The DMCA's Anti-Circumvention Provisions

The DMCA prohibits manufacturing or trafficking in products or services that are "primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a [copyright protected] work." 17 U.S.C. § 1201(a)(2)(A). The legislative history shows that Congress intended the DMCA to prohibit devices that would allow a person, for example, to defeat encryption protection on a musical CD and thus make unauthorized CD copies.

Lexmark's Printers and Toner Cartridges

The facts are somewhat more complex than discussed below and the court opinion lists alternative bases for issuing the preliminary injunction prohibiting Static Control Components (SCC) from selling its "Smartek" computer chip. The discussion below, however, summarizes one basis for the court's issuance of the preliminary injunction.

The Lexmark printers contain a software program called the Printer Engine Program. Lexmark

continued on page 17

continued from page 16

toner cartridges contain a microchip which includes a 37-byte "program" which appears to constitute a few relatively trivial instructions and constants that are used in identifying a "toner low" condition. Thirty-seven bytes is the amount of information necessary to reproduce 37 characters in ASCII. The toner cartridges also contain six different numbers stored in memory. When the printer is powered on or a new toner cartridge is inserted, the toner cartridge sends a complete copy of its memory to the printer. Both the printer and the toner cartridge compute a Message Authentication Code (MAC) based on the contents of six secret locations within the toner chip and the secure hashing algorithm (SHA-1). If the MAC computed by the toner cartridge does not match the MAC computed by the printer, the printer will not operate. That is, in the court's view, access to the copyrighted Printer Engine Program software will be denied. Lexmark designed this authentication sequence to ensure that its printers would not operate if a non-authorized toner cartridge were inserted into the printer. Without knowing the Lexmark trade secret information of what the various memory locations within the toner cartridge are used for and how the "secret handshake" works, making a toner cartridge chip that would be compati-

continued on page 18.

continued from page 17

ble with the software in the printer, although not theoretically impossible, would be practically impossible without verbatim copying of the toner cartridge "program."

SCC's Microchips

Lexmark sold toner cartridges that, according to Lexmark's shrink wrap license, had to be returned to Lexmark for refilling. SCC sold a microchip that, when used to replace the microchip on the Lexmark cartridge, allowed the cartridge to be refilled by a third party and used again in a Lexmark printer. The SCC chip "slavishly copied" the 37 bytes of code from the Lexmark chip. The SCC chip apparently could have also been used to make a third party's cartridge compatible with the Lexmark printer, although third party cartridges were not at issue in the case.

The Court's Ruling

In the court's view, because the SCC chip "mimics" the authentication sequence between the toner cartridge and the Lexmark printer, thus allowing the printer to print, the SCC chip "circumvents Lexmark's authentication sequence, the technological measure that controls access to . . . the Printer Engine Program." Slip op at 19. Under this view, any toner cartridge that is compatible with the Lexmark printer necessarily violates the DMCA's anti-circumvention provisions, because it allows access to the software residing within the printer.

Also in the court's view, it did not matter that Congress did not intend the DMCA to be used in this way. According to the court, the anti-circumvention language in the DMCA is sufficiently clear that there was no need to look to legislative intent. Slip op. at 40.

It also did not matter that reverse engineering the software to determine only the minimal amount of copying necessary for compatibility would have been extremely difficult, so in order to make a compatible chip SCC was, in practical terms, forced to copy the entire contents of the Lexmark chip. Slip op. at 25-27. The court opined, "Public policy favors requiring competitors to carefully study security systems and discern what is truly necessary for compatibility." Slip op at 27.

continued on page 19

continued from page 18

Implications of Lexmark v. SCC

The apparent implication of this case is that the traditional anti-tying rules can be circumvented when a product involves software. The steps are fairly simple: (1) Place a computer chip on the tied product that participates in a "secret handshake" with the tying product in order for software within the tying product to operate; and (2) take steps to protect the secret handshake and the locations of the bits used to produce that handshake as a trade secret. Additionally, it will strengthen your case even further if you make the secret handshake sufficiently complex and the bits used to produce it sufficiently hidden within the tying product's computer chip such that someone would, practically speaking, have to slavishly copy more than is theoretically necessary to make a compatible product. By taking these simple steps, it appears that you will be able to accomplish what you would have otherwise have been forbidden by copyright misuse, patent misuse, and antitrust law from accomplishing.

This result is somewhat startling, and perhaps all the more so because a number of amici filed briefs opposing Lexmark's use of the DMCA in this way. Even Hewlett Packard, which is known for aggressively asserting intellectual property rights against competitors, stated that the DMCA was not intended to be used in this manner, and that HP would not invoke the DMCA to prevent third parties from selling compatible cartridges or refilling HP's cartridges.

Stay tuned for the decision on appeal.

*The views expressed herein are the author's view of the district court's decision and reasoning, and do not represent the views of Oppenheimer Wolff & Donnelly nor the author regarding proper application of the DMCA.

Joel Voelzke is a partner in the Los Angeles office of Oppenheimer Wolff & Donnelly LLP and can be reached at JVoelzke@oppenheimer.com.

RECEIPT OF THIS PUBLICATION IS NOT AN INDICATION OF MEMBERSHIP.

TO JOIN THE CENTURY CITY BAR ASSOCIATION, PLEASE SEE MEMBERSHIP APPLICATION INCLUDED IN EACH ISSUE