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37 CFR Part 201

[Docket No. RM 99-7]

Request for Comments on Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies

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COMMENTS OF
THE COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION (CCIA)

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The Computer & Communications Industry Association (CCIA) strongly supported ratification and implementation of the World Intellectual Property Organization (WIPO) Copyright Treaty and the WIPO Performances and Phonograms Treaty, both of which were intended to update the Berne Copyright Convention to improve protections for digital works such as computer software and compact disks. The WIPO Copyright Treaty affirms that computer programs and other digital works are due full copyright protection under the Berne Convention. The WIPO treaty also clarifies transmission rights for copyrighted works in digital, electronic formats, and requires "adequate and effective" remedies to protect against the circumvention of anti-copying technologies and alteration or removal of electronic rights management information.

Following the adoption of the WIPO treaties at the 1996 Diplomatic Conference, the Administration introduced implementing legislation in the 105th Congress. However, these bills, S. 1121 and H.R. 2281, went beyond the revisions necessary to conform American law to our treaty obligations and conferred broad new rights on the owners of copyrighted material. As introduced, these bills would have made it illegal for competitors to analyze operating systems or software platforms for the purpose of creating interoperable products. Computer scientists conducting encryption research and security testing would have also been in danger of running afoul of the law. In addition, online service providers could have been subject to broad liability for the actions of others engaging in copyright piracy utilizing their services, regardless of whether the service provider played any role or had any knowledge of such activity.

Working on behalf of its members, CCIA was actively involved throughout consideration of this legislation (the Digital Millennium Copyright Act (DMCA) (Pub. L. No. 105-304, 112 Stat. 2860 (Oct. 28, 1998)). In addition to working to limit the legislation's impact on the broad issues of service providers' liability and fair use, CCIA and other interested parties were able to preserve the practice of reverse engineering for interoperability purposes. CCIA also spearheaded the effort leading to the exceptions for encryption research and security testing. We believed then, and continue to believe, that this language is essential to maintaining innovation and competition in the information technology industry. We also cautioned that the need for additional exceptions -- based on unforeseen developments and innovation in technology -- would almost certainly arise.

As we anticipated, since the enactment of the DMCA by Congress the progress of technology has evinced the need for additional exceptions to the circumvention prohibitions in the statute. Legitimate efforts to deliver new and innovative products to the market and to consumers have been thwarted or have been challenged as violations of the Copyright Act as amended by the DMCA.

1. The DVD Problem.

We have recently observed the rise of litigation involving the reverse engineering of the encryption protecting Digital Versatile Disks. This litigation exemplifies the undue narrowness of the DMCA's reverse engineering exception. Although the following discussion focuses on DVD and Linux, we support broadening the reverse engineering exception to facilitate the interoperability of any storage format with any operating system or software platform.

A. Background. A Digital Versatile Disk, or DVD, is an optical storage disk that stores digitized data in essentially the same manner as a Compact Disk (CD), but has far greater storage capacity. In order to prevent unauthorized copying of the video and audio content on DVDs, a consortium of content producers and consumer electronics companies (the DVD Content Control Association (DVD-CCA)) created a method of protecting the data on DVDs. The Content Scrambling System (CSS) encrypts the data on each disk so that unauthorized users cannot play the DVD. The DVD-CCA has licensed a DVD decryption program to manufacturers of DVD players that attach to televisions, and also to manufacturers of DVD drives that run on personal computers that utilize the Microsoft Windows operating system. These DVD devices can play DVDs, but cannot copy them.

Unfortunately, DVDs have not been usable by the growing number of computers operating with a Linux operating system. Linux is an open-source operating software program derived from another operating system known as Unix. Linux is envisioned by many as a potential competitor to Microsoft Windows as a platform for personal computing or workstations. Many members of CCIA are developing Linux products and are enthusiastic about its potential as an alternative operating platform for software applications and computing devices. The Justice Department has also expended a great deal of effort to open the operating system market to competitors to Windows and to provide opportunities for innovation, competition, and consumer choice. However, the viability of Linux as a mainstream operating system will almost certainly depend on its ability to provide the most popular applications and to playback the most popular content formats, including DVDs.

It appears that Linux developers could not obtain a license for the CSS because they could not meet all of the secrecy conditions required for the license; the Linux movement is based on open-source software. Accordingly, during the last several months, Linux developers reverse engineered the CSS security and developed a program that implements the same decryption process used in DVD players. As a result, Linux users can play DVDs and Linux vendors may now have the opportunity to be competitive with Windows and other commercial operating systems.

However, a program based on code from the Linux DVD project, DeCSS, was subsequently posted widely on the Internet. DeCSS does not appear to have the copy controls built in to CSS, and the widespread availability of a means of circumventing the CSS control prompted the Motion Picture Association of America (MPAA) to bring suit in federal court in New York against operators of websites containing information and code related to CSS, including but not limited to those containing DeCSS. The MPAA also sued an Internet Service Provider which hosted such websites. The court recently issued a preliminary injunction, finding that the defendants likely violated the circumvention provisions of the DMCA.

Further, the court ruled specifically that the reverse engineering exception did not apply for three reasons. First, the court saw no evidence that the defendants actually were trying to promote interoperability. Second, the reverse engineering exception requires that the product that enables interoperability be used solely for that purpose. DeCSS, however, is a Windows program designed to decrypt video streams from DVDs and write them to disk. (The court neglected to distinguish other websites related to CSS and the Linux DVD player.) Because DeCSS can run on Windows as well as Linux, the court reasoned, it has purposes other than permitting interoperability. Third, the reverse engineering exception is available for achieving interoperability between computer programs, but the DVDs now available on the market contain motion pictures, not computer programs.

B. The Need for a New Exception. The judge's third rationale precludes the current development of a Linux-compatible DVD driver. CCIA believes, however, that once a consumer purchases a DVD, he should be able to view it on any platform he pleases; he should not be locked into a specific platform. Accordingly, CCIA supports an exception to Section 1201 that would permit the development, sale, and use of a product that enables DVDs to run on Linux.

In the Senate Judiciary Committee's report on the DMCA (S.Rpt. 105-190), the Committee made clear that reverse engineering for the purposes of promoting competition and innovation was a primary purpose of the interoperability exceptions to the Act's prohibitions on circumvention of copyright protection measures.

> Sections 1201(g)-(j) are intended to allow legitimate software developers to continue engaging in certain activities for the purpose of achieving interoperability to the extent permitted by law prior to the enactment of this chapter. The objective is to ensure that the effect of current case law interpreting the Copyright Act is not changed by enactment of this legislation for certain acts of identification and analysis done in respect of computer programs. See Sega Enterprises Ltd. v Accolade, Inc., 977 F.2d 1510, 24 U.S.P.Q.2d 1561 (9th Cir. 1992.). The purpose of this section is to foster competition and innovation in the computer and software industry.

[S.Rpt. 105-190, page 29]

Clearly, the needs of Linux developers and users to make use of DVDs are within the intent and purpose of the DMCA interoperability exceptions. However, as the court in the DVD case

noted, the Committee Report goes on to say that "interoperability" as contemplated within those exceptions is limited only to computer programs:

> This provision applies to computer programs as such, regardless of their medium of fixation and *not to works generally, such as music or audiovisual works*, which may be fixed and distributed in digital form. Accordingly, since the goal of interoperability is the touchstone of the exceptions contained in subsections 1201(g) through (j), nothing in those subsections can be read to authorize the circumvention of any technological protection measure that controls access *to any work other than a computer program*, or the trafficking in products or services for that purpose.

[S.Rpt. 105-190, page 30 (emphasis added)]

Therefore, although the Congress intended for the DMCA "to foster innovation and competition in the computer and software industry," the Act does not seem to permit access to information other than computer programs for purposes of promoting competition. We believe that the reverse engineering exception should be broadened to allow this sort of activity.

We hasten to add that CCIA takes no position on whether all of the particular defendants named in the DVD action were in fact engaged in an a Linux interoperability exercise, or instead were seeking to facilitate piracy of films stored on DVDs. CCIA, of course, does not condone conduct aimed at facilitating piracy. However, CCIA believes that the DMCA should not stand in the way of legitimate Linux interoperability activities. Thus, we believe that reverse engineering resulting in the development of a program which allows DVDs to run on Linux, while at the same time preventing the copying of the content stored on the DVD, should be permitted.

In this context, we note that at some point in the near future computer programs will be distributed on DVDs. Would reverse engineering CSS to permit these programs to run on Linux be permitted under the DMCA as enacted, or would the exception not apply because the decryption software would also allow the running of movies? To eliminate the possibility of this absurd result, reverse engineering for the purpose of permitting all forms interoperability -- and not just between computer software -- should be permitted.

2. The Instant Messaging Problem.

Another recent example of circumvention for purposes other than copyright piracy is the effort by Microsoft and others to obtain access to users of America Online's AOL Instant Messenger (AIM). America Online (AOL) has successfully thwarted efforts by Microsoft's programmers to reverse engineer the AIM software not in order to copy it, but to permit access by users of Microsoft's messaging program, MSN Messenger, to AIM users. Because it seems that Microsoft is seeking the AOL user-names, rather than interface specifications of the AIM software, it might be argued that the DMCA's reverse engineering exception does not apply to Microsoft's action. In CCIA's view, interoperability of systems should be encouraged, whether it is software systems or instant messaging systems. Either way, preventing interoperability diminishes competition and consumer choice.

3. The Debugging Problem.

Finally, the DMCA as enacted creates obstacles for systems administrators and technicians seeking to correct programming errors and glitches in software programs. As the Year 2000 problem demonstrated, software programs of all types can require error correction. Because some software is protected by security measures, it is often necessary to circumvent the security protections in order to perform the necessary modifications to prevent a network or computer shutdown or to prevent malfunctions in processing.

Circumvention of this nature is not permitted by the DMCA although it is clearly in accordance with the goals of the DMCA and with the traditional rights of users of copyrighted works. Once one has lawfully obtained a copy of a software program, he or she should certainly have the opportunity to repair that program so that it functions properly.

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As mentioned previously, CCIA and others anticipated the need for additional exceptions of this nature and we are not surprised that the advance of technology and innovation has exceeded the foresight of the drafters of the DMCA. For this reason, we argued that acts of circumvention should be unlawful only when tied to actual acts of piracy or violations of copyright. We continue to urge the Copyright Office and Congress to revisit this critical issue and consider the harm to innovation and competition in the software industry that is already apparent from enactment of the DMCA. At a minimum, the Copyright Office and Congress should consider clear exceptions to cover circumvention of technological protections in instances similar to those outlined above.

Respectfully Submitted,

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