DVD
Copy Control Association

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General Counsel
Copyright GC/I&R
Southwest Station
Washington, D.C. 20024

RE: Section 1201(a)(1) of the Digital Millennium Copyright Act (Docket #RM99-7B)

Dear Mr. Carson:

After reviewing the comments received by your office regarding the Notice of Inquiry announced in the Federal Register Volume 64, No. 102, the DVD Copy Control Association (DVD CCA), as licensor of the Contents Scramble System (CSS), is concerned that many of the comments received by your office regarding CSS misconstrue how CSS was developed, its operation, and the process by which it is licensed for use in DVDs and DVD players (including software implementations). In addition, we are concerned that many of the comments misrepresent the purpose of the lawsuit filed by the DVD CCA in Santa Clara California Superior Court for misappropriation of trade secrets. This reply comment is intended to clarify those issues.

1.   <u>The role of CSS in developing the DVD market</u>

CSS is a proprietary copy protection system based on encryption licensed by the DVD CCA to protect copyrighted content on DVD video discs. It is the culmination of a cooperative effort by the consumer electronics, information technology and motion picture industries to enable the development of DVD technology while still protecting the copyrights of the entertainment industry.

DVD technology is a digital technology that allows consumers to enjoy motion pictures in their homes in a way they never have before. DVD technology provides clearer images, a more interactive viewing experience and dynamic multimedia features, including interviews with directors and actors and multiple language options.

The CSS technology was developed to provide security for the motion picture industry so that new, high-value, copyrighted content could be made available to consumers in the DVD format. The availability of the technology encouraged the motion picture studios to release their copyrighted movies in this new digital format. Since October 31, 1996, when CSS technology first became available, hundreds of companies have entered into license agreements allowing them to use the CSS copy protection technology. As a result, consumers have been able to enjoy an enormously expanding choice of copyrighted motion pictures in DVD format.

Consistent with the DMCA requirement that only effective technological protection measures are protected by the prohibition on circumvention, CSS employs a

process of encryption of content (which is then recorded onto DVD discs) and subsequent decryption by stand-alone and computer-based DVD playback systems. Through this technology, consumers may view a CSS encrypted work on players licensed to use the technology but are prevented from making or viewing an unauthorized copy of the work. The technology is not specific to any particular operating system or similar platform and may be implemented in hardware or software. The license for the technology is available, on a royalty-free basis, to any person who agrees to abide by its terms.

      2.   The "hack" of the CSS technology

      In late 1999, a European group called "Masters of Reverse Engineering," (MoRE) hacked a DVD software application in order to circumvent the CSS system. They used the information obtained through the hack to create an unauthorized program called DeCSS, that uses a copy of the CSS algorithm and keys to decrypt and enable unauthorized playback and recording of CSS encrypted movies.

      MoRE also posted the CSS algorithm and certain of its keys on the Internet. Many copycat postings and additional hacks followed. These postings violate the intellectual property rights of the licensor of CSS and facilitate the unauthorized copying of copyrighted movies.

      In order to protect the trade secret status and ensure the continued viability of the CSS licensing system, on which several new technologies rest, DVD CCA filed suit against individuals who posted the CSS proprietary information and the DeCSS utility. A preliminary injunction was issued by the Superior Court of Santa Clara, California on January 21, 2000.

      DVD CCA filed the lawsuit because CSS encryption technology was (and is) critical to the adoption and utilization of the DVD format. Without such copy protection, the motion picture companies would not have allowed their copyrighted motion pictures to be available in the DVD format. Consequently, consumers interested in making lawful use of such copyrighted content would not have had access to motion pictures in the DVD format.

      The significance of copy protection to the continued availability of copyrighted works in digital form, and the adverse effects on consumers from hacks of such technologies, is demonstrated by the aftermath of the hack of CSS. Immediately following the hack of CSS and disclosure of the CSS proprietary trade secret information, the major music companies – all of which had previously been prepared to release sound recordings in the DVD audio format – withdrew support for the proposed encryption system for DVD audio and insisted that a new copy protection technology, unrelated to the "compromised" CSS technology, be developed to protect their works. As a result, the launch of DVD audio products, planned for December 1999, was postponed. These developments demonstrate that, contrary to the claims of those who suggest that circumvention of CSS technology should be permissible in order to ensure that lawful consumers have greater access to copyrighted works, circumvention of technologies such as CSS actually results in depriving lawful users of copyrighted works of the opportunity to enjoy and make use of such works in digital formats.

3.   <u>Comments to the Copyright Office</u>

The hacker community and those who approve of their efforts to circumvent the CSS technology have made seven principal arguments in these proceedings. We address those arguments in turn.

- *It should be permissible to hack CSS because CSS limits the platforms on which DVDs can be played, thereby constraining consumer equipment choices.*

Contrary to assertions made by individuals commenting to the Copyright Office, CSS does not limit the platforms on which DVDs can be played nor constrain consumer equipment choices. CSS can be licensed royalty-free on the same terms for any computer operating system or platform. Any person wishing to create a player capable of reading encrypted DVD discs--Linux, or otherwise -- is free to apply to the DVD CCA for a license to use CSS. Indeed, an authorized, licensed Linux player is available in the market today.

- *Individuals who hacked CSS were forced to do so because there were no Linux compatible systems to allow playback of encrypted content from DVDs.*

The argument that individuals involved in the hack of CSS were Linux system operators who were "forced" to hack the CSS system because no Linux DVD players were available is disingenuous at best. The individuals who created DeCSS did not create a Linux player; they created a Windows utility that allows a Windows user to make a copy of a DVD movie that may be played on a Linux player. As a result, DeCSS does not achieve "interoperability" for individuals who only have a Linux system, rather it allows individuals to make an unauthorized copy of the DVD content on a Windows system which can then be played on any system. If allowed to continue, such hacking could ultimately lead to a situation where manufacturers of licensed software products are placed at a competitive disadvantage by manufacturers of utilities such as DeCSS which allow unauthorized copying. Such a result would do nothing to promote interoperability and could deprive lawful users of the opportunity to enjoy copyrighted works if content providers were to limit the availability of copyrighted works in the DVD format. Moreover, as noted above such utilities are unnecessary to promote interoperability with Linux because an authorized, licensed Linux player is available in the market today.

- *Individuals are being prosecuted for attempting to understand how DVDs function.*

As described above, DVD CCA filed suit to obtain an injunction against postings of the DeCSS program and the CSS trade secrets. The hack of CSS is not a simple case of reverse engineering for the purpose of understanding how CSS works and creating an interoperable system. The individuals who hacked CSS did so in direct violation of the license for the software that was their specific target, and then chose to publish CSS trade secrets, in violation of intellectual property law and the CSS license. Moreover, it is clear from the websites on which DeCSS was posted that the individuals posting the information were fully aware that the DeCSS program wrongfully appropriated proprietary trade secrets.

- *DVD CCA is taking legal action against people attempting to play legally purchased DVDs.*

As the discussion above makes clear, the DeCSS utility makes it possible to play unauthorized copies of movies originally encrypted using CSS, rather than the legally purchased DVDs themselves. DVD CCA strongly believes that hacking of the CSS technology in order to steal trade secrets and other information which enables the making and viewing of unauthorized copies of DVD discs is the type of activity that should be prohibited by the anticircumvention provision of the DMCA.

- *CSS never protected against illegal copying of DVDs. It was and is possible to make infringing bit for bit copies of CSS protected DVDs even without the DeCSS utility.*

Although it was possible to make infringing bit for bit copies of CSS encrypted DVDs even before the DeCSS utility was distributed, it was not possible to view such improperly copied movies because the CSS authentication function necessary for decryption of the content did not work with copied DVDs. DeCSS uses the misappropriated CSS algorithm and keys to decrypt and enable playback and recording of CSS encrypted movies, facilitating *viewable* unauthorized copies. Accordingly, DeCSS should be considered a circumvention technology.

- *DVD CCA has a monopoly on CSS as an access control standard.*

CSS was developed in a collaborative, open process and is licensed royalty-free on reasonable and nondiscriminatory terms. There is no mandate to use or respond to CSS in order to use DVD technology. Content may be recorded onto DVD discs "in the clear" without using CSS technology, and such discs should be playable on all DVD players (stand-alone and computer-based). Moreover, other entities are free to develop competing copy control technologies.

- *The elimination of access control technologies, such as CSS, will be in the best interest of consumers.*

The facts demonstrate otherwise. As the aftermath of the CSS hack has demonstrated, copyright owners are willing to make commercial entertainment content available to consumers in digital formats only if effective copy control technologies are used to prohibit unauthorized duplication of the content. If technologies such as CSS are hacked, consumers wishing to make lawful use of copyrighted content will suffer.

We hope that these comments have clarified any misunderstandings about CSS and the issues related to the hack of the CSS technology. DVD CCA would be happy to testify at any hearing conducted by the Copyright Office on this matter.

Respectfully submitted,

John Hoy, President
DVD Copy Control Association, Inc.