

**COMMENTS OF INTEL CORPORATION SUBMITTED IN CONNECTION WITH THE ALL PARTY
PARLIAMENTARY INTERNET GROUP (APIG) PUBLIC INQUIRY INTO ISSUES SURROUNDING
DIGITAL RIGHTS MANAGEMENT (DRM)**

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Intel Corporation commends the APIG for its inquiry into the important policy issues raised by DRM systems, and welcomes the opportunity to provide comments. Our comments begin with some general information about Intel Corporation and our vision of the role of DRM. We then turn to the specific questions raised by the APIG in its November 15th call for comments.

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About Intel Corporation. Intel Corporation is the world's largest semiconductor manufacturer. Among other things, we provide the "building blocks" at the heart of the worldwide digital economy, including desktop, mobile, and server computers, digital entertainment devices, and networking and communications products. Intel has been a technical innovator for over 30 years and has a significant interest in robust intellectual property protection. Intel is among the world's most prolific producers of patentable technologies. Our trademark symbolizes innovation in the technology world. As the owner of a vast array of copyrighted works, Intel is acutely aware of the importance of protecting copyrights as an incentive to creativity. Intel employs more than 8,000 software engineers whose efforts are dedicated to generating copyright-protected software.

Intel's Role in Content Protection and DRM efforts. Intel respects, and works to protect, the intellectual property rights of others. Intel has played an active role in creating the DVD Copy Control Association, which provides the protection system for DVD videos. Intel has played a leading role in the formation of open content protection systems. Intel is a founder and member of the following entities which license open content protection or DRM systems: (a) the 4C entity that developed and licenses Copy Protection for Prerecorded Media (CPPM), designed to protect digital music, and Copy Protection for Recordable Media (CPRM), which protects copyrighted music and video stored on recordable-removable digital media; (b) Digital Transmission License Administrator (DTLA, LLC) that developed and licenses Digital Transmission Content Protection (DTCP), which protects compressed, commercial entertainment content when transmitted over various local connections, including home networks; (c) Content Management License Administrator (CMLA, LLC) that developed and licenses a DRM trust model to be used in

conjunction with products and services based upon the Open Mobile Alliance DRM version 2.0 specification; and (d) the more recently formed Advanced Access Content System (AACSLA, LLC) to protect digital content, such as high definition video, on newly emerging high capacity optical discs. In addition, Intel developed and licenses High-bandwidth Digital Copy Protection (HDCP) to protect decompressed digital video output from set top boxes, PCs and other video source devices to new high definition digital displays. Intel's investment of technology, personnel, and other resources in these efforts to protect valuable entertainment content reflects Intel's deep commitment to develop a reasonably protected environment to enable new business models and market-segments.

Intel's vision of DRM-enabled markets. Intel believes that rights holders should be free to use technical protection measures to support new digital business models. We believe that creative offerings that give consumers flexibility, portability, and choice—all of which can be enabled by existing content protection and DRM tools—will succeed in the marketplace and benefit both consumers and rights holders. Ultimately we believe that market forces can drive development of business and technical models that (a) provide new, compelling services for consumers that preserve or extend existing consumer content usage models, (b) protect content owner interests and encourage content owners to make content available in a digital environment, and (c) create an environment of robust technical innovation.

Role of policymakers. Copyright, like other intellectual property rights, represents a balancing of public and private interests. Ensuring that this balance is properly maintained is an important role of government. Intel believes that in a healthy marketplace, the content protection and DRM solutions that gain market acceptance will be those that balance the interests of consumers, rights holders and technical innovators. Governments can ensure that this market dynamic happens within a framework that functions effectively and that protects key public policy interests.

A critical ingredient of a well-functioning market is consumer knowledge. Consumers must be able to make fully-informed marketplace decisions, and should not be surprised by DRM functionality. Intel believes that consumer notice requirements in connection with content protection and DRM are not only appropriate, but will in fact help drive both the deployment of new business models and consumer acceptance of content protection and DRMs generally.

Intel recognizes that the use of content protection and DRM tools can raise challenging public policy questions when their use is over-reaching and/or against public policy. Setting parameters that protect key policy interests while enabling markets to function within these parameters is an appropriate role for government.

One public policy consideration of particular interest to Intel is ensuring that any legal infrastructure designed to support content protection and DRM technologies does not inhibit technical innovation. We recognize and agree that maintaining the integrity and security of a DRM is important both from a practical and a business perspective. An example of the challenges this creates is that current laws designed to protect DRM systems in some jurisdictions also prevent device manufacturers from enabling private uses of content that are otherwise legal under applicable copyright law. Such laws may create significant opportunity costs for consumers and technical innovators (e.g., innovative device features that enable interesting and useful

applications that are lawful within the “digital home” may not be produced, or may be produced only with sub-optimal functionality), and may in fact discourage consumer acceptance of content protection, DRMs and new business models.

Another example of where policymakers should carefully consider the value of technical innovation is when the government is involved in creating or endorsing a content protection or DRM system. In some jurisdictions, for example, digital television conditional access technologies are approved through quasi-governmental proceedings. Those proceedings should ensure that the subject technologies are not only implementable in traditional set-top-box devices, but in any number of new and innovative devices that consumers may desire, such as personal computers, game consoles and smart televisions. The “rules” should not only permit, but encourage this type of innovation as a basic principle.

We believe that the public policy interest in promoting technical innovation should be an important factor when weighing the copyright policy balance. Other important policy considerations include (a) preserving incentives for artists to create content and protecting them against piracy and other misuse of their content, and (b) preserving the ability of consumers to make reasonable personal uses of content they have legitimately acquired. Ultimately we believe policymakers should encourage development of a legal environment that recognizes each of these interests—rights holders, consumers and technical innovators—and allows market forces to work within these parameters to create innovative DRM solutions.

Finally, we note that policymakers should be wary of thinking of technology as a “magic bullet” solution to piracy. Technology is not effective against determined pirates. Laws, not technology, should be the primary enforcement tool against piracy. Intel does not support government efforts to replace traditional rights enforcement with technology mandates aimed at forcing digital devices into the role of consumer policing. Intel does not generally support technological approaches that assume the content is distributed “in the clear or unprotected,” or that attempt to police content that may have escaped a protective DRM wrapper through an act of piracy or a legitimate consumer activity.

In this context, Intel believes that the most effective content protection systems are those that protect the content at the point of distribution (through encryption and DRM/Conditional Access/Content Protection Systems) and maintain that protection in the home and personal environment by devices complying with private licensing and business agreements. Intel believes that those systems are best developed and deployed by private parties, through cross-industry negotiation, in the private marketplace. The role of government with respect to the development and deployment of content protection systems should be limited to ensuring that this marketplace activity happens within a framework that supports key copyright policy goals and intervening only in the event of clear market failures or at the invitation of cross-industry consensus.

Intel does not believe as a general matter that governments should mandate particular content protection systems, or mandate particular device designs or features with respect to content protection. Further, Intel generally does not support “policing” mandates, believing that the role of traditional law and rights enforcement should address acts of infringement by pirates large and small.

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Responses to specific questions raised in November 15, 2005 APIG notice. The APIG specifically requested input in connection with the following questions:

1. Whether DRM distorts traditional tradeoffs in copyright law

Intel believes that the content protection DRM solutions that will succeed in the marketplace will not materially alter the traditional balance of copyright law. That is, we believe that the content protection and DRM solutions that will gain market acceptance will be those that fairly balance the interests of consumers, rights holders and technical innovators.

Intel acknowledges the risk that content protection and DRM systems can potentially undermine important public policy goals. One example of such an impact on important consumer interests would be a DRM system that prohibited classic “fair dealing” uses (such as copying done by a student in the course of research in accordance with Section 29 of the Copyright, Designs and Patents Act of 1988 (CDPA)), coupled with DRM-protective legal provisions that make it illegal and/or exceedingly impractical to make such uses, all in the context where there are no other practical means enabled or available for such uses.

A less obvious example, focused on the public policy interest in fostering technology innovation, relates to the development of a portable device market. Innovative devices enabling digital music portability have thrived in certain jurisdictions – a boon to both consumers and device manufacturers, and increasingly, to artists (legal downloads recently eclipsed 20 million in one week). We are just now beginning to see whether a similar market for portable video devices will materialize despite the fact that the content protection system for DVD Video (the most popular video content) does not currently permit recording or movement of DVD video content to portable devices.¹ Unlike technical innovation in the music world which was not constrained by DRM limitations (because digital music on most CDs is not content protected), innovation in the DVD video world has faced the challenge that the DVD content protection rules do not currently permit devices to make copies of DVD content, and laws associated with protecting DRM systems do not permit device makers to work around those “no copy” rules.² Policymakers should explore ways to encourage the kind of innovation we see in the music device world in other content arenas, beginning with a careful consideration of the consumer experience, the interests of rights holders, the impact on innovation that laws designed to protect the integrity and security of DRMs might

¹ The portable video device is currently limited to consumer recorded video content and just recently television “downloads”

² The development of portable video devices has faced more than DVD copy restrictions, including memory, processing and other technical limitations. The availability of DVD content for use on portable devices, however, would have provided significant incentive to solve those problems. From a technical innovation perspective, however, it is not only the more rapid development of a portable video market that would have benefited. If DVD video content were not protected, there would be a large number of “DVD video jukebox” applications and devices in the market today – devices that would benefit consumers and spark further innovation. Content protection/DRM systems currently being designed by next generation high-definition content are expected to address these DVD shortcomings but until these issues are fully addressed, an understanding of the problem and ongoing efforts (technical, business and policy) to resolve it remain important.

have, and considering ways and means to minimize those impacts relying primarily on market forces to drive the desired result. Although not a direct analogy, the Broadcast Flag and Cable Plug and Play encoding rules in the United States (discussed below) represent examples of efforts to address these competing interests in the development of innovative television products.

We note that there are several examples where DRM systems seem to strike a fair balance between various stakeholder interests. As referenced above, Intel has worked for many years in several forums where we have sought to balance the public and private interests by creating a “rights base-line” that guarantees, at least to some extent, that consumer interests are not unduly restricted by over-reaching DRM systems. The U.S. Broadcast Flag regulations prohibit “indiscriminate internet redistribution” of broadcast content that has been protected. In this way, consumer rights and the distributor’s rights are both reasonably protected, and technical innovators are free to innovate within these parameters. Another example is the U.S. Cable Plug and Play regulations, which are based on encoding rules established in DTCP. These regulations require content providers to permit consumers to “copy one generation” premium cable content. These encoding rules were established to protect consumer interests, give rights holders the ability to otherwise protect their content in support of new digital business models, and stimulate innovation in the device market.

As a general matter, Intel believes that DRM systems should ensure that consumers are able to make reasonable personal uses of content (such as time and space shifting). Preserving such reasonable personal uses in a digital environment can help drive demand for compelling new content, protect important consumer interests and create opportunities for technical innovators to develop exciting new technologies for the digital home.

Given the immense technological changes inherent in this digital age, the key may be to focus on the ultimate policy goal of copyright: balancing incentives for creators to create with the broader societal interest in enabling beneficial and innovative use of created content. Intel believes that the DRM market is developing in a direction that embodies this balance, and that over time DRM solutions will emerge that fairly balance all stakeholder interests. We believe that it is appropriate for governments to monitor development of these markets to ensure that such interests are in fact protected.

2. Whether new types of content sharing license (such as Creative Commons or Copyleft) need legislation changes to be effective

Intel supports a broad range of innovative efforts to bring more content distribution and consumption opportunities into the marketplace, including both the Creative Commons efforts and the wide variety of “open source” content licensing strategies. A great strength of both types of licensing efforts is that they turn on the voluntary participation of rightsholders and build upon existing legal principles. We do not see the need for legislative changes to support such efforts.

3. How copyright deposit libraries should deal with DRM issues

Intel recognizes that DRM raises complex and difficult issues for libraries generally and for deposit libraries specifically. We believe that facilitating the mission of libraries and enabling

libraries to function in a digital age in a manner that is analogous to their historical mission is an important public policy goal. Reasonable exceptions and limitations aimed at achieving this policy goal are appropriate.

4. How consumers should be protected when DRM systems are discontinued

Intel believes that in a well-functioning DRM marketplace few consumers would make an informed decision to use a DRM system that put their content purchases at risk in the event that the DRM system was discontinued. That is, we believe that a well-designed DRM system will permit ongoing use of purchased content, even in the event that the system is discontinued, and that consumers will opt for such a system in the marketplace. We believe that, as a general matter, policymakers should adopt a “wait and see” posture until it becomes clear that there is evidence of actual consumer harm before legislating on this specific topic.

5. To what extent DRM systems should be forced to make exceptions for the partially sighted and people with other disabilities

Intel’s hope is that content providers using DRM will work with representatives of the disabled community and provide voluntary solutions that meet or exceed the spirit of the requirements of 31A and 31B of the Copyright, Designs and Patents Act of 1988. Ideally this issue would be rendered moot by such cooperative activities.

To the extent that voluntary actions did not address this problem, some remedial action by policy makers may be in order. Facilitating access to content by the disabled is a well-established and unquestionably important public policy goal. If a content provider does not voluntarily promote this goal then policies that ensure access for the disabled community would be appropriate.

6. What legal protections DRM systems should have from those who wish to circumvent them

As a general matter, Intel believes that it is necessary to prohibit the circumvention of DRMs and the distribution of circumvention devices if the integrity and security of those systems is to be maintained, and that exceptions to the rule should be narrowly tailored. The problem with broadly permitting circumvention and the distribution of circumvention devices is that, from a business and technology perspective, the exception could in fact swallow the rule and undermine the value of the DRM. We do believe, however, that there may be circumstances where circumvention may be the only reasonable solution.

We believe that the need for exceptions to circumvention prohibitions is best managed by business models and DRM/content protection technologies that meet consumer needs and expectations.

7. Whether DRM systems can have unintended consequences on computer functionality

Intel believes that the use of DRM by consumers should be part of a fully-informed marketplace decision. Consumers should not be surprised by DRM copy restrictions or functionality

limitations. Content providers who employ DRM should ensure that consumers understand the limitations imposed by the DRM system before the consumer chooses to use the system.

Like any hardware or software system, DRM systems could contain unintentional errors or “bugs.” In connection with such errors, Intel believes that the providers of DRM systems should be treated the same as other hardware and software providers.

8. The role of the UK Parliament in influencing the global agenda for this type of technical issue.

The U.K. Parliament has demonstrated global leadership on this issue simply by initiating this inquiry. Intel encourages the U.K. to continue this important work in an open and transparent manner and share the results of its analysis broadly. We encourage the sharing of such results with the World Intellectual Property Organization’s Standing Committee on Copyright and Related Rights.