



having the least obtrusive and least disruptive effect possible on marketplace activities. MPAA's suggested change to the robustness standard, on the other hand, is incongruous with the goal of the broadcast protection system, incommensurate with the type of material to be protected, and unnecessarily burdensome for device manufacturers and costly to consumers. Moreover, MPAA's contention that isolated instances of hacks to DVD CSS demonstrate a need to change the robustness requirements ignores the differences between that system and over-the-air television. Finally, while the IT Coalition is sympathetic to the piracy concerns asserted by NMPA, it believes any increase in the level of protection for digital music would cause serious disruption for consumers and the marketplace, particularly given the orphaned legacy consumer equipment that would result.<sup>3</sup>

**I. The Commission's New Robustness Requirements Represent a Well-Reasoned Solution, and MPAA Has Offered No Credible Justification for Revising Them**

**A. The Commission's Robustness Requirements Are Consistent with the Goals of the Broadcast Flag System and Commensurate with the Type of Content Being Protected and Appropriately Avoid Burdening Consumers and Device Manufacturers**

In its Petition, MPAA again asks the Commission to require device manufacturers to thwart an expert hacker's attempt, using his own expertise and general purpose tools and equipment, to defeat the system.<sup>4</sup> Not only would this standard exceed the goals that the FCC

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<sup>3</sup> The IT Coalition does not believe that the petition for reconsideration submitted by the National Cable Television Association ("NCTA") currently warrants lengthy discussion. The IT Coalition supports NCTA's first contention that the FCC should ensure that the new broadcast protection regulatory scheme does not limit the types of modulation systems that can be used to remodulate DTV transmissions; does not take a position on NCTA's second request that the FCC make clear that the new rules apply to DBS QPSK demodulators; and submits that it believes that the FCC's new rules already accomplish NCTA's third concern that professional cable equipment be expressly and automatically exempt. With respect to NCTA's fourth contention that the FCC should clarify that cable operators may distribute programming over robust home networks, if NCTA is simply asking that the FCC reiterate that the rules permit sending either unscreened or marked content over a home network using a robust method when the original demodulator product retains sole control over access to the content in usable form (even if the unscreened content is altered), the IT Coalition has no objection. If, however, any further submissions somehow interpret NCTA's discussion as calling for more restrictions on the enjoyment of programming within the home environment, the IT Coalition reserves the right to address that issue.

<sup>4</sup> Petition for Reconsideration and Clarification of the Motion Picture Association of America, Inc., in MB Docket No. 02-230 (filed Jan. 2, 2004) ("MPAA Petition") at 6-7, 8-9 (advocating a change to 47 C.F.R. §73.9007).

articulated for its broadcast protection system, but it is unnecessary for the type of content to be protected and will result in unacceptable burdens on consumers and device manufacturers, which, in turn, will retard acceptance of DTV.

In its decision adopting the broadcast flag, the FCC made clear that the goal of the new broadcast protection system is to protect free over-the-air digital TV, which is transmitted in the clear, from indiscriminate redistribution over the Internet.<sup>5</sup> Consistent with the goal of this protection system, the Commission adopted robustness rules predicated on an ordinary user's ability to defeat the system. As the Commission found, "an expert level of robustness is incongruous with the scope of protection offered by an ATSC flag system."<sup>6</sup>

Promulgating broadcast flag rules, particularly the robustness requirements, requires a complex balancing of numerous interests, including the universal interest in promoting DTV, MPAA's interest in protecting its video content from indiscriminate redistribution, manufacturers' interest in controlling costs and promoting innovation, and, most importantly, the consumer's interest in affordable and accessible DTV. The IT Coalition believes that the FCC's *Order/FNPRM* struck the right balance. The new robustness rules will protect free over-the-air DTV content, while not resulting in unreasonable manufacturing costs or challenging innovation. The rules also will not interfere with consumers' reasonable and legitimate expectations. In the end, the appropriate balance that the FCC struck will advance the DTV transition.

In its Petition, MPAA argues that the same standard should apply to broadcast content and to content distributed by a number of privately licensed systems that it claims call for a higher level of robustness than the FCC's requirements.<sup>7</sup> These arguments ignore fundamental

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<sup>5</sup> Digital Broadcast Content Protection, *Report and Order and Further Notice of Proposed Rule Making*, MB Docket No. 02-230 (rel. Nov. 4, 2003) at ¶4 ("*Order/FNPRM*").

<sup>6</sup> *Order/FNPRM* at ¶46.

<sup>7</sup> MPAA mischaracterizes these private licenses as "marketplace content protection agreements." MPAA Petition at 9. While many IT industry members participated in the creation of these protection systems and continue to

disparities between broadcasting and these different ways of making content available to consumers. Unlike the more rigorous content protection systems cited by MPAA, such as the DVD Content Scramble System (CSS), which is designed to prevent consumers from making copies except for display, the goal of the broadcast flag regime is *not* to prevent consumer copying of broadcast programming. The systems cited by MPAA are used to prevent copying of high value video content that, unlike free over-the-air broadcast DTV, is delivered already protected. Given the different consumer expectations concerning these systems and the goals asserted in protecting them, MPAA has not demonstrated a need to impose a higher robustness standard, such as preventing an experienced hacker from defeating the system, for the protection of DTV.

Throughout discussions in the Broadcast Protection Discussion Subgroup (“BPDG”), computer industry companies had urged that, if DTV were to be protected, it should be protected at the source, *i.e.*, at transmission. Despite these arguments as well as submissions made in this docket by the IT Coalition and others,<sup>8</sup> content owners like MPAA continued to insist that they be permitted to transmit in the clear knowing full well that there will likely be several million legacy DTV receivers outputting unprotected DTV video. As a result of this choice, over-the-air DTV is being afforded an inherently lower level of protection than that required for DVD CSS

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participate in the administration and enforcement of their implementation, these agreements are simply private license agreements, nothing more and nothing less. As such, these systems are not “market agreements” nor are they “content protection industry ‘standard[s].’” *Id.*

In addition, the “Jointly Proposed Robustness Rules” to which MPAA refers repeatedly in its Petition did not, as MPAA claims, “receive[] unanimous agreement among MPAA, 5C, and CIG.” MPAA Petition at 3. First, the document was clearly labeled “Discussion Draft.” Second, as MPAA noted, the parties never agreed upon the vital issue of the level of robustness. *Id.* Finally, the cited discussion also failed to reach agreement on the technology selection criteria. Thus, the three-way discussions did not result in anything close to a “unanimous” agreement.

It is also significant that in the privately licensed systems MPAA cites, either device manufacturers alone or a troika of CE, IT, and content owners are responsible for license enforcement. Thus, in those private agreements, device manufacturers have a final say in the interpretation of the robustness rules.

<sup>8</sup> *E.g.*, Comments of the IT Coalition, in MB Docket No. 02-230 (filed December 6, 2002) (“IT Comments”) at 15-16; Comments of Motorola, in MB Docket No. 02-230 (filed December 6, 2002) at 4-6.

and the high value pay-per-view and premium material transmitted over encrypted MVPD services.<sup>9</sup>

The robustness requirements previously proposed by MPAA and asserted again on reconsideration would needlessly increase costs for both device manufacturers and consumers and likely stifle innovation. Although MPAA claims that its modified standard will not have any impact on device costs, the members of the IT Coalition, many of whom are device manufacturers, have a better understanding of the costs of designing products to defend against expert hackers than movie makers. The IT Coalition members are equally concerned that MPAA's modified standard will chill innovation. The strength of the personal computer is its openness, and MPAA's proposal would stifle, rather than build upon, that attribute.

Since the beginning of the computer revolution, the American information technology industry has been defined by its ability consistently to produce devices with increased functionality and faster performance at lower cost. This relentless "better-faster-cheaper" path to innovation has provided great benefits to both the economy and the individual consumer. The United States is now at the beginning of a similar digital entertainment revolution, and the innovation that is beginning to emerge in the production of DTV products should not be chilled, as would be the case if the FCC imposed the additional unnecessary robustness burdens requested by MPAA. The resulting reduction in innovation is not a price that the information technology industry is willing to bear and not one that consumers deserve.

The IT Coalition shares the Commission's and MPAA's interest in facilitating a rapid transition from analog to DTV. If the transition to over-the-air DTV is to continue at its current pace, if not an accelerated one, it is imperative that the Commission adopt policies that reduce

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<sup>9</sup> Anyone wanting unprotected content will focus at the weakest point, which, as noted in the IT Coalition's initial comments in this proceeding, occurs at reception of in-the-clear DTV signal and its demodulation, using either an "illicit" hardware demodulator or a software defined radio. *See* IT Comments at 16-17.

the cost of consumer devices and minimize delays in getting the products to consumers' markets. Requiring a considerably higher robustness standard will increase design and production costs, slow product delivery to markets, and result in higher prices to consumers. The Commission reached the correct result on the robustness standard, and the MPAA Petition offers no reason to depart from that decision.

In its Petition, MPAA also asserts that "no IT or CE manufacturer claimed that the Jointly Proposed Robustness Rules were unworkable."<sup>10</sup> This misleading statement glosses over one important caveat – most of the IT companies participating in the BPDG discussions agreed that the rules were workable **only** if it was assured that they were geared to an ordinary user or consumer. At no time during the vigorous debate on this issue did the IT industry or the CE industry as a whole endorse MPAA's position on robustness. To be clear, the IT Coalition supports the Commission's robustness requirements.

The IT Coalition disagrees with MPAA's proposed change to Section 73.9006, which would specify encryption as the only Robust Method under that Section for transmitting compressed Unscreened or Marked Content across a user accessible bus. Nowhere else has the Commission mandated encryption as a requirement of a Robust Method. In fact, the Commission has acknowledged that robust protection may be achieved through other than cryptographic means. Sections 73.9003(b)(1) and 73.9004(b)(1), for example, permit digital recording using a method uniquely associating content with a single product "using a cryptographic protocol or other effective means." This same principle should apply to Section 73.9006, to allow for flexibility and innovation in meeting the requirement for robust protection. Therefore, Section 73.9006 correctly permits add-in covered demodulator cards to pass Unscreened or Marked Content on user accessible buses so long as it uses a "Robust Method."

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<sup>10</sup> MPAA Petition at 4.

To modify Section 73.9006, as the MPAA requests, would unnecessarily increase cost and stifle innovation designed to improve the efficiency and functionality of PC-based devices while ensuring that content remains protected. To ensure technology neutrality as well as to promote innovation and the DTV transition, the Commission should preserve the current formulation of the rule and clarify that the requirement to protect compressed content that may be transferred across a user accessible bus (as defined in the Commission's rules) can be met using a Robust Method (through encryption, authentication, or other technological means), so that an ordinary user using generally available tools or equipment cannot access such content in a usable form. The MPAA's proposed "reformatting" of the rule for add-in cards (§73.9006) would improperly change and not simply "clarify" the provision.<sup>11</sup>

**B. The Record Facts Do Not Support MPAA's Claims of Harm**

MPAA has failed to provide any evidence that adoption of the Commission's ordinary consumer standard for robustness will result in harm to its members. In fact, its recitation of the DVD hack demonstrates precisely that the FCC's intended "speed bump" system of content protection is more than adequate to address indiscriminant redistribution of video content.<sup>12</sup>

Mere evidence that a protection can be, or has been hacked, does not mean that the value of the system in promoting commerce or public welfare has been destroyed. Despite the hack cited by MPAA, consumers last year spent a record \$16.1 billion on DVDs,<sup>13</sup> and the content industry, which has not abandoned the format, had released some 29,000 titles through the end of last year.<sup>14</sup> MPAA complains that CSS was broken because one DVD CSS programmer failed to

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<sup>11</sup> See MPAA Petition at 21-22.

<sup>12</sup> MPAA Petition at 11-12. We are unaware that either DVD CCA or any judicial body has confirmed MPAA's opinion as to whether the Xing product did not meet the CSS robustness standard.

<sup>13</sup> *DVD Shipments Hit One Billion in 2003*, CONSUMER ELECTRONICS DAILY, Feb. 8, 2004, at 4.

<sup>14</sup> *Id.* Indeed, despite the CSS hack, the content industry decided to release TV programming on DVD. Last year a surprising \$1 billion of such TV show DVDs were sold. See John Higgins, *With Scant Notice, TV-DVD Sales Top \$1b And Begin To Affect Scheduling, Financing* BROADCASTING & CABLE,

meet what MPAA characterizes as an expert standard. Whatever the reason, CSS continues to provide sufficient protection to “keep honest people honest.” Clearly, the release of new material does not turn on the level of protection, but on whether money can be made. Based on the facts in the record, the robustness requirements adopted by the FCC will not hinder the content owners’ ability to make money on DTV content.

Finally, the MPAA Petition incorrectly and mistakenly magnifies the harms it alleges will occur without its requested relief. Hacked DVDs in fact represent very little of the video distributed over the Internet. Since the MPAA Petition was filed, several researchers at AT&T Labs have published a detailed review of the sources of unauthorized copies of movies redistributed over the Internet; this study demonstrates that only five percent of such unauthorized content originated from hacked DVDs.<sup>15</sup>

The FCC’s “ordinary user” standard is exactly the right approach to robustness given the goals of the broadcast protection rules, the type of content protected, and the needs of consumers. The increased costs of a higher robustness level would be wholly unwarranted given the lack of any documented harm to the content industry from the standard that the FCC endorsed.

## **II. NMPA’s Request To Encrypt Audio Is Not Supported by the Record**

The IT Coalition is sympathetic to the music authors’ and publishers’ theoretical concerns. Our shared pain is real: BSA members alone suffer some \$11 billion of losses to piracy every year.<sup>16</sup> The IT Coalition agrees not only with the broadcast flag’s goal of

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<http://www.broadcastingcable.com/article/CA359680?display=Top+of+the+Week> (Dec. 12, 2003) (last visited Mar. 10, 2004).

<sup>15</sup> Simon Byers, Lorrie Cranor, Dave Kormann, Patrick McDaniel, Eric Cronin, *Analysis of Security Vulnerabilities in the Movie Production and Distribution Process* (2003) (draft available at <http://lorrie.cranor.org/pubs/drm03-tr.pdf> (last visited Mar. 10, 2004)). Despite the publicity surrounding this problem, video content continues to leak from the studios. See, e.g., Patrick Day, *Oscar Copy Found on EBay*, L.A. TIMES, Jan. 15, 2004 at <http://www.latimes.com/business/la-fi-screeners15jan15.1.5122253.story> (last visited Mar. 10, 2004).

<sup>16</sup> See IT Comments at 2.

preventing indiscriminant redistribution of DTV content but also agrees that an intolerable amount of unauthorized redistribution of audio over the Internet is already occurring.

Nonetheless, the record lacks any evidence demonstrating that the level of protection afforded audio transmitted as part of television broadcasts is a problem today or will be one tomorrow. No party presented evidence, nor do we believe that DTV soundtracks constitute any significant portion of that distribution. The record contains no contradictory evidence regarding a current or future problem related to DTV broadcasts.

Even if evidence of a problem did exist, adoption of any rule to address it would have to be balanced against the substantial consumer harm such a rule would cause. Legacy consumer equipment depends upon receiving audio output in the clear. Consumers already own tens of millions of Dolby AC-3 receivers. Those receivers' digital inputs can only accept unprotected DTV audio.<sup>17</sup> Vast quantities of such equipment would be orphaned if NMPA's request were granted.

Given the lack of any evidence of a present or future harm, requiring device manufacturers to redesign equipment that might comply with a new standard and millions of consumers to purchase such new equipment would represent an unacceptable and onerous change. If NMPA's request were granted, the resulting burdens would greatly slow adoption of DTV and unnecessarily impede the DTV transition.

### **III. Conclusion**

The IT Coalition urges the Commission to deny MPAA's request to modify the Commission's robustness standard from one assuming an "ordinary user" to one directed against

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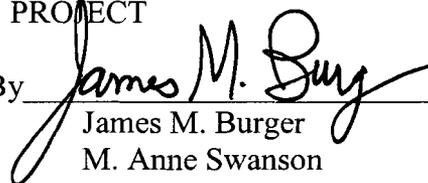
<sup>17</sup> See <http://www.dolby.com/stats/> (last visited Mar. 10, 2004). Many of these items were purchased by owners of the 155 million DVD Players and 199 million DVD-ROM equipped PCs that have unprotected Dolby digital capability. *Id.* Dolby digital receivers can accept digital audio input from DTV receivers with unprotected digital outputs as well as from all of the DVD Players and DVD-ROM equipped PCs with unprotected Dolby digital outputs.

“experts.” Such a change would be inconsistent with the goals of broadcast protection, unnecessary given the type of content at issue, and burdensome to manufacturers and consumers. Moreover, MPAA has offered insufficient evidence showing such a change is necessary to ensure adequate protection of free over-the-air DTV content. In addition, the Commission should deny NMPA’s petition to increase protection for the audio portion of the DTV signal as not supported by the record and inappropriate given the extensive redesign of existing products that would be required and orphaned legacy equipment that would result.

Respectfully submitted,

BUSINESS SOFTWARE ALLIANCE  
COMPUTER SYSTEMS POLICY  
PROJECT

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