Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Digital Output Protection Technology	)	**MB Docket No. 04-63**
and Recording Method Certifications	)	
	)	
TiVoGuard Digital Output Protection	)	
Technology	)	

OPPOSITION TO THE APPLICATION OF TIVO FOR INTERIM AUTHORIZATION OF TIVOGUARD BY THE MOTION PICTURE ASSOCIATION OF AMERICA, INC., METRO-GOLDWYN-MAYER STUDIOS INC., PARAMOUNT PICTURES CORPORATION, SONY PICTURES ENTERTAINMENT INC., TWENTIETH CENTURY FOX FILM CORPORATION, UNIVERSAL CITY STUDIOS LLLP, THE WALT DISNEY COMPANY, AND WARNER BROS. ENTERTAINMENT INC.

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The Motion Picture Association of America, Inc. ("MPAA"), Metro-Goldwyn-Mayer Studios Inc., Paramount Pictures Corporation, Sony Pictures Entertainment Inc., Twentieth Century Fox Film Corporation, Universal City Studios LLLP, The Walt Disney Company, and Warner Bros. Entertainment Inc. (collectively, "the MPAA Parties") hereby submit this opposition to the application of TiVo for interim authorization for TiVoGuard.[1]

INTRODUCTION

TiVo has proposed its proprietary digital output protection technology, TiVoGuard, for use with Covered Demodulator Products. TiVo makes two types of devices, both of which are apparently downstream from the Covered Demodulator Product, and thus would be at the receiving end of a TiVoGuard output: a stand-alone, integrated TiVo consumer electronics

[1] *See* Broadcast Flag Certification of TiVo Inc., MB Docket No. 04-63 (filed Mar. 1, 2004).

device, and a TiVoToGo USB dongle that allows PCs to receive and manipulate content from a TiVo CE device, but not become a primary stand-alone TiVo broadcast receiving unit.[2]

TiVoGuard is a promising technology. It appears to contain a strong level of security, including well vetted algorithms and a well designed multi-layer security architecture. It is upgradeable, so that it can be repaired in the event of a compromise, and it includes the capability for device revocation and system renewability. However, there are some serious omissions from TiVo's application that preclude authorization of the technology at this time. As described further below, TiVoGuard fails to sufficiently protect against unauthorized redistribution of Marked and Unscreened Content because it does not include any distance-based limitations on transmissions of the content. Furthermore, TiVo's application does not provide any means of ensuring that compliance and robustness rules are followed by downstream devices; and does not provide for a role for content owners in ensuring that their content is protected through meaningful change management, revocation, and renewal procedures, or a private enforcement right. In addition, to facilitate ready consideration of any future filing, TiVo should also confirm that TiVo will itself be bound by the terms of the TiVoGuard license, and that TiVoGuard places no obligations on content providers, broadcasters, and others. Until these issues are addressed in a subsequent filing, however, the Commission must reject the TiVoGuard application for interim authorization at this time.

We note at the outset that this proceeding, and the Commission's review of the content protection technologies, related functionalities, and licenses submitted in this proceeding, are concerned only with whether the proposal meets the interim requirements the Commission identified for the protection of digital broadcast television content. This response, therefore, is

[2] For purposes of this analysis, we do not distinguish between TiVoGuard and TiVoToGo.

based on the understanding that if the Commission decides to authorize TiVoGuard on an interim basis for use in protecting Marked and Unscreened Content, which the MPAA opposes for the reasons set forth herein, that authorization extends only to the use of TiVoGuard in the Broadcast Flag application.[3]

I. TiVoGuard Does Not Place Adequate Restrictions on the Scope of Redistribution of Marked and Unscreened Content

TiVoGuard employs personal affinity-based controls to restrict the unauthorized redistribution of Marked and Unscreened Content. The technology restricts redistribution of content is restricted to a "secure viewing group," normally no more than ten devices, which must be registered to one billing account. No device is allowed to belong to more than one secure viewing group. However, nothing in TiVoGuard imposes any distance-based limit on the redistribution of content.

TiVoGuard thus does not sufficiently protect Marked and Unscreened Content against unauthorized redistribution because it fails to control the proximity of redistribution. In the context of this interim process, technologies that rely on personal affinity-based mechanisms alone raise too many difficult technological, policy, privacy, and legal questions that are not appropriately addressed in this proceeding. The use of personal affinity-based controls, without proximity controls, would essentially allow consumers to be retransmitters of copyrighted content owned by others, a far-reaching situation never before faced by the Commission, and new as well to content providers, broadcasters, manufacturers, and others, including even consumers themselves. Physical redistribution, which has been in existence for years, is well

[3] For example, the interim authorization of a content protection technology would not determine in any way whether that technology appropriately protects content with copy restrictions delivered through high-definition analog outputs, which was not the subject of the Broadcast Flag proceeding.

understood; however, there are difficult questions concerning what technological limits need to be placed on consumer retransmission such that content owners' rights are not trampled and the digital transition thwarted. These are not the sort of issues that are appropriately addressed in an accelerated, interim proceeding.

In exchanges during the proceeding which led to this interim certification procedure, reference was occasionally made to the notion of "remote access" – that is, to circumstances under which the technology need not inhibit, and indeed might facilitate, transmission to locations remote from the home receiver. The MPAA Parties are <u>not</u> opposed to that notion as such; however, we strongly believe that careful consideration of numerous interrelated practical, business, legal, and technological considerations which underlie the appropriate "circumstances" is a fundamental necessity and complex undertaking – including a threshold issue of whether it is better suited to government involvement or marketplace resolution.[4] Converting the consumer to

[4] The remote access issue is precisely presented under the heading of "personal digital network environment" (to the extent it extends beyond the home, the PDNE is essentially a remote-access zone) in the Commission's Further Notice of Proposed Rulemaking in the Docket No. 02-230, FCC 03-273 (rel. Nov. 4, 2003). *The conclusion of that inquiry should not be predetermined in this relatively summary and fast track proceeding. Moreover, comments in that docket generally agreed that it was premature, at best, to address this issue. See, e.g.,* Comments of MPAA *et al.* at 8 ("[A]n attempt to regulate or define this area will inevitably risk substantial and continuing conflict with copyright law definitions of exclusive rights pertaining o performance and distribution, and significantly impair if not render impossible the efforts of copyright owners to protect those right by technological means. *It will also fundamentally impair and interfere with emerging business models designed to enhance consumer choice and consumer enjoyment of remote usage technologies.*") (emphasis added); Comments of Time Warner Inc. at 10-12 (noting and illustrating, *inter alia*, "substantial effect and alter[ation] of existing video distribution agreements and business models"; "implica[tion] of significant and controversial copyright law issues" ; provoking "protracted legal conflicts and consumer confusion"; existing cross-industry efforts to "accommodate consumer interests to use content flexibly" ; enmeshing and undermining pre-existing business and licensing relationships including geographic limitations that "are particularly important in the broadcast television context, since many broadcast programs are licensed to television stations pursuant to strict and well-defined local market restrictions"); Comments of the Office of the Commissioner of Baseball *et al.* at 6-7 (concern that remote access regimes "must be consistent with copyright owners rights" and "go no further than copyright law permits"). Although differing with the MPAA parties on rationale (and hence reinforcing the Time Warner prediction of "protracted legal conflict") the Comments of Public Knowledge and Consumers Union (at 11-12) explicitly acknowledged that defining a PDNE "will tread on the prerogatives of Congress in defining copyright law and associated doctrines such as fair use." Other commenting parties rejected the need for a government defined PDNE or zone of remote access on grounds that differ from the MPAA parties but, like those of Public Knowledge and Consumers Union, amply forecast the contentious and difficult nature of the exercise, which far transcends the limited scope and purpose of the instant proceeding. *See, e.g.*, Comments of the IT Coalition at 6-8; Comments of Digital Transmission Licensing Administrator LLC at 16-17.

a re-broadcaster is a revolutionary and far reaching step; for that reason we believe it is premature, inappropriate, and counterproductive to approve in this interim proceeding this or any other technology which, on the present record at least and unless modified or sufficiently clarified, does not take meaningful and affirmative steps to limit redistribution by proximity to the home receiver.

Technologies considered for interim authorization must therefore contain, as a necessary condition, proximity controls that approximate the physical constraints that have heretofore prevented consumers from being retransmitters of copyrighted content owned by others. Limiting the "proximity" means that the technology affirmatively and reasonably constrains unauthorized redistribution from extending beyond a Covered Demodulator Product's local environment – i.e., the set of compliant, authorized devices within a tightly defined physical space around that product. Affirmative and reasonable constraints may include the use of controls to limit distance from a Covered Demodulator Product, or limits on the scope of the network addressable by such Covered Demodulator Products. Additionally, personal affinity-based controls that approximate association of such set of devices with an individual or household may be beneficial to use in addition to such proximity constraints, but are not a substitute for them at this time.

While TiVoGuard is a promising technology, as currently submitted to the Commission, it does not achieve proximity control, because devices in a TiVo secure viewing group may be located – and thus protected content may flow – anywhere. For the reasons stated above, TiVoGuard cannot be authorized in this interim process until TiVo is able to include a proximity component in the technology. The MPAA Parties look forward to working with TiVo to develop a solution in this regard.

II. TiVo Must Clarify That Content Protection Obligations Will Persist Downstream of the Covered Demodulator Product

TiVo has proposed a technology that it intends only for use with its own devices, and does not intend to license to anyone else (*see* TiVo Application at 2, 34). Since TiVo does not need to sign a license for TiVoGuard when it includes TiVoGuard on the inputs of a downstream device, nothing requires TiVo as a downstream device manufacturer to adhere to the Broadcast Flag compliance and robustness rules.[5] TiVo must therefore provide assurances to the Commission that, as a condition for its authorization for use in protecting Marked and Unscreened Content, neither it nor any other entity will be able to incorporate its technology in downstream devices without being obligated by all of the terms of the adopter license agreement. Furthermore, TiVo must provide the Commission and the public with a copy of the precise compliance and robustness rules downstream devices will be obligated to follows, just as if TiVoGuard contained an Adopter Agreement.

This is especially important in connection with the TiVoToGo device. It is not at all clear from TiVo's submission how compliance and robustness rules equivalent to those in the Broadcast Flag regulation (contained in Sections 73.9003 and 73.9004 of the Commission's rules) will be imposed in a PC running the TiVoToGo device. The TiVo submission makes no statements concerning what will happen to content once it reaches the TiVoToGo device, including what outputs it will be permitted to flow to, or what recording methods must be used, or how such restrictions would be achieved. Without such statements, it is possible that content passed to a TiVoToGo PC may be able to be redistributed everywhere and to everyone. This is a

[5] The Commission should thus consider, as part of its FNPRM proceeding, whether a regulation is necessary as part of the final criteria for authorization of digital protection technologies that would address this situation.

serious omission that must be addressed by TiVo before TiVoGuard can be authorized for use in DTV devices.

III. TiVo Does Not Provide Sufficient Revocation or Renewal Procedures for TiVoGuard

Secure device revocation is a necessary component of any content protection technology. The TiVoGuard Application provides for device revocation, but does not provide content owners any role in requesting that a particular device should be revoked. Instead, the revocation decision is left completely to TiVo. This is inadequate, however, since TiVo may have little practical incentive to identify, investigate, and take action against compromised device keys or identity certificates. That is why, in most marketplace agreements, content owners are granted a meaningful opportunity to request device revocation. It is equally critical here that content owners be provided with the right under a Content Participant Agreement to request that device revocation be invoked, and that procedures be set forth in the license for a fair and impartial determination of the response to such a request.

In addition to revocation, a technology that is proposed for interim authorization also needs to have "renewability," meaning the ability to be upgraded to repair or compensate for security flaws. TiVoGuard is both renewable and upgradeable, but again fails to provide content owners any meaningful role in determining when these processes are invoked. For the reasons stated above, this is not adequate to ensure rapid and effective responses to compromises. This too must be addressed in any re-submission of TiVoGuard.

Additionally, in order to effectuate revocation, renewal, or other aspects of a proposed technology that require information to accomplish a process or continued robustness or efficiency of the technology over time, it is necessary that a standardized means for delivering this information in the ATSC transport stream is developed and that FCC approval of any

protected digital output and secure recording technology include obligations that Covered Demodulator Products and downstream devices properly receive, preserve, process, and convey downstream, as appropriate, such information. In any subsequent filing, TiVo should explain how it will deal with this issue.

IV. TiVo Must Provide Content Owners With a Right to Privately Enforce the Compliance and Robustness Rules for Downstream Devices

Another critical component of any content protection technology is the ability of content owners to enforce the robustness and compliance requirements against manufacturers of downstream devices. In private agreements, this allows content owners, who have more of an interest in enforcement of the compliance and robustness rules than technology vendors, to enforce those provisions without relying on the technology manufacturer to do so. That reasoning is no less applicable in the Broadcast Flag context. The success of the Broadcast Flag regulation depends not only on the regulation itself, but also on the license terms that replicate the regulation's compliance and robustness requirements downstream. The Commission has no direct enforcement power over downstream devices, and there may be no provision or resources to pursue technology licensors for failure to enforce their licenses. It is thus equally important in this context, therefore, that content providers have third-party beneficiary rights allowing remedies against TiVo or any third-party device manufacturers it licenses TiVoGuard to if the forthcoming TiVoGuard compliance and robustness rules are not followed.

TiVoGuard, however, lacks any Content Participant Agreement or Adopter Agreement and makes no other provisions for content owner rights or manufacturer obligations with respect to downstream devices. Given the lack of Commission authority to directly enforce the compliance and robustness rules against downstream devices, this is a critical oversight, and TiVoGuard should not be authorized as an interim technology until this is remedied.

V. TiVoGuard Does Not Provide for Fair Change Management Procedures

As submitted to the Commission, TiVoGuard has no provision for "Change Management," that is, a procedure under which content owners have a meaningful opportunity to object to changes in the technology. This is an important omission, for if nothing prevents a technology manufacturer from changing the technology in material and unforeseen ways, the entire Broadcast Flag system that the Commission has worked so hard to create may come undone. Without a Change Management procedure, if the Commission decides to authorize TiVoGuard, it must do so on an "as is" basis. The Commission should clarify that any proposed changes to TiVoGuard will require a new application for authorization, so that the technology as altered can be thoroughly vetted before being incorporated into any consumer products.

VI. If TiVo Resubmits Its TiVoGuard Application, It Should Facilitate Ready Consideration by Clarifying That It Is Bound to TiVoGuard's License and That TiVoGuard Imposes No Obligations for Content Providers, Broadcasters, and Others

As part of any resubmission of TiVoGuard, and in order to facilitate ready consideration of TiVoGuard technology by the Commission in this proceeding, the MPAA Parties request that TiVo clarify that there are no obligations that would impact content owners, broadcasters, consumers, or others described below by use of its technology. could become one of many technologies included in the Broadcast Flag system. All approved technologies will receive broadcast content marked with the Broadcast Flag and may be invoked or "triggered" in response to the Broadcast Flag in various devices, such as set-top boxes and digital video recorders. Content providers, broadcasters, and others currently cannot direct which approved technologies may receive broadcast content marked with the Broadcast Flag or which approved technologies may get triggered by the Broadcast Flag. Because content providers, broadcasters, and others exercise no direct control over the actual use of TiVoGuard (or any of the other potential

approved technologies), TiVo should clarify that broadcasters, content providers, and others who do not take a license to the TiVoGuard technology but who mark or broadcast content with a Broadcast Flag that triggers TiVoGuard are not subject to any obligations to TiVo, including but not limited to intellectual property licensing obligations. Furthermore, TiVo should certify, as a condition of interim authorization, that no consumer transmitting or receiving content marked with the Broadcast Flag signal will incur any claim of obligation from TiVo.

CONCLUSION

The MPAA Parties look forward to working with TiVo further in revising its Application to permit eventual authorization for TiVoGuard. For the reasons stated above, however, although TiVoGuard is a promising technology, the application of TiVo for interim authorization of TiVoGuard must be rejected in its current form.

Respectfully submitted,

THE MOTION PICTURE ASSOCIATION OF AMERICA, INC.
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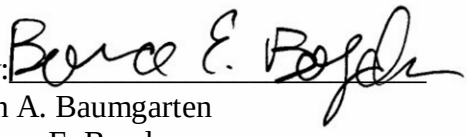
By: 

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