FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C.

In the Matter of	)	
	)	
Digital Broadcast Content Protection	)	MB Docket No. 02-230
	)	
	)	
	)	

REPLY COMMENTS OF THE IT COALITION

James M. Burger
M. Anne Swanson

Dow, Lohnes & Albertson, PLLC
1200 New Hampshire Avenue, N.W.
Suite 800
Washington, DC 20036
(202) 776-2534

March 15, 2004

TABLE OF CONTENTS

Page

SUMMARY ii

I. Introduction 1

II. The Broadcast Flag Should Inhibit Indiscriminate Redistribution over the Internet and Should Not Confine Content to an Arbitrary and Imprecise "Local Environment" 2

- A. All Commenting Parties Agreed That the Threat To Be Addressed by the Broadcast Flag Is Indiscriminate Redistribution over the Internet 2
- B. Restricting Content to Some Artificially Defined "Local" Environment Is Needlessly Limiting 3

III. Protection Technologies, Approved Through Methods Including Self-Certification With Functional Criteria, Will Successfully Inhibit Indiscriminate Redistribution and Promote Competition Among Technologies 5

- A. Virtually All Commenting Parties Agree That Functional Criteria Are Necessary To Promote Innovation and That They Should Offer Sufficient Guidance to Technology Providers To Self-Certify Technologies 6
- B. Functional Criteria Will Provide Sufficient Guidance to the Commission To Resolve Oppositions to Self-Certification Under Those Criteria 8

IV. Rescission Should Only Be Used in Extraordinary Circumstances 9

- A. Virtually All Commenting Parties Agree That Rescission of a Technology's Approval Should Only Occur After a Substantial Showing of Harm and Considered Commission Judgment 10
- B. Rescission Must Balance the Harm of the Various Parties 11

V. Conclusion 11

SUMMARY

The Commission's initial decision in this docket is a well-crafted articulation of a complex set of issues, which on most points has drawn widespread support from those filing initial comments in response to the Further Notice of Proposed Rulemaking. Practically without exception, all of the initial comments that discuss the harm to be addressed by the broadcast protection regime agree with the scope of the problem the Commission has defined as the indiscriminate redistribution of digital television ("DTV") content over the Internet. Virtually every commenting party also shared the IT Coalition's position that it would be inappropriate for the Commission to attempt to define a Personal Digital Network Environment ("PDNE"). The vast majority of comments also agreed with the IT Coalition that restricting content to some artificial "local environment" made little sense and would be antithetical to the Commission's overall goal of advancing the DTV transition.

The initial comments, with but one exception, also endorsed the Commission's interim decision to use functional criteria when evaluating protection technologies and to rely on technology developers to self-certify their compliance with those criteria. The IT Coalition suggests adoption of rules embodying, as at least one method of obtaining approval, a flexible set of functional criteria applied pursuant to a full self-certification regime with an opportunity for appeal to the Commission. With the exception of one party, all commenting parties also agreed that having a single industry as the sole arbiter of entry into the market for protection technologies would stifle innovation and limit consumer choice.

Finally, every party addressing the issue agreed that the Commission should never retroactively revoke approval of a technology. Commenting parties agreed with the IT Coalition that rescission or de-listing of the approval of a technology should only be done on a prospective basis and only in exceptional circumstances with appropriate rules, procedures, and safeguards.

The parties differed only in how they precisely defined the appropriate circumstances for such de-listing or rescission of a technology. The IT Coalition continues to maintain that de-listing should only be considered when breach of a technology is widespread and significant, the technology's vendor is unable to remedy the breach, and the breach has compromised the DTV platform to such a point as to destroy its commercial viability. Even then, a technology's approval should not be withdrawn unless the harm to content owners outweighs the harm to consumers and device manufacturers.

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C.

In the Matter of	)	
	)	
Digital Broadcast Content Protection	)	MB Docket No. 02-230

REPLY COMMENTS OF THE IT COALITION

I. Introduction

The Business Software Alliance ("BSA") and the Computer Systems Policy Project ("CSPP") (together, the "IT Coalition"), by their attorneys, hereby submit their reply comments in response to the *Further Notice of Proposed Rule Making* issued as part of the Commission's first decision in the above-referenced proceeding.[1]

The IT Coalition respectfully suggests that, in this second phase of its deliberations on an appropriate broadcast content protection mechanism, the Commission continue its course of establishing the broad outline of a protection scheme and refine it in only three relatively minor ways, as suggested by the vast majority of parties filing initial comments in response to the *Order/FNPRM*. First, the Commission should affirm that the scope of the broadcast protection regime is to inhibit indiscriminate redistribution of broadcast content over the Internet and not to confine content to some artificial local environment. Second, the Commission should expand on the interim rules' functional criteria and permit, as at least one method for approval, full self-certification of content protection technologies meeting the functional criteria with an

[1] Digital Broadcast Content Protection, *Report and Order and Further Notice of Proposed Rule Making*, MB Docket No. 02-230 (rel. Nov. 4, 2003) ("*Order/FNPRM*").

opportunity for appeal to the Commission. Finally, the Commission should never permit retroactive revocation of a protection technology and should permit prospective de-listing of a technology only in rare circumstances when a breach has destroyed the commercial viability of DTV content and the harm to content owners of retaining the technology outweighs the harm to consumers, device manufacturers, and technology providers of rescinding approval.

II. The Broadcast Flag Should Inhibit Indiscriminate Redistribution over the Internet and Should Not Confine Content to an Arbitrary and Imprecise "Local Environment"

A. All Commenting Parties Agreed That the Threat To Be Addressed by the Broadcast Flag Is Indiscriminate Redistribution over the Internet

All commenting parties agreed that the threat that the Commission's broadcast content protection regime should address is the indiscriminate redistribution of DTV content over the Internet.[2] As the Commission recognized, the goal of such a scheme is promoting a successful DTV transition. The steps the FCC has taken so far have been measured and have appropriately balanced content protection with preservation of a robust, innovative market for DTV receivers and related devices. The comments express support for this approach,[3] and almost without

---

[2] *See, e.g.,* Comments of the IT Coalition, in MB Docket No. 02-230 (filed Feb. 13, 2004) ("IT Comments") at 2-3, *citing Order/FNPRM* at ¶¶ 4, 6, 10-12, 19, and 34; Comments of Matsushita Electric Corporation of America, in MB Docket No. 02-230 (filed Feb. 13, 2004) ("MECA Comments") at 3; Comments of Public Knowledge and Consumers Union, in MB Docket No. 02-230 (filed Feb. 13, 2004) ("Consumers' Comments") at 11. While the MPAA suggests it would prefer to inhibit other types of redistribution in addition to Internet redistribution, *see, e.g.,* Appendix A at X.20(c)(5)(C), Comments of Motion Picture Association of America, Inc., *et al.* in MB Docket No. 02-230 (filed Feb. 13, 2004) ("MPAA Comments"), the content industry has not given any concrete examples of any other "unauthorized" redistributions that represent a threat. Moreover, it is likely that any technology that inhibits Internet redistribution will at the same time inhibit other forms of unauthorized redistribution.

[3] *See, e.g.,* Comments of Digital Transmission Licensing Administrator, LLC, in MB Docket No. 02-230 (filed Feb. 13, 2004) ("DTLA Comments") at 1; Comments of Center for Democracy and Technology, in MB Docket No. 02-230 (filed Feb. 13, 2004) at 3; Comments of Philips

. . . *(cont'd)*

exception, urge the FCC to reaffirm that this proceeding's goal is the prevention of indiscriminate redistribution of DTV content over the Internet. This goal should inform the Commission's decisions in this proceeding.

B. Restricting Content to Some Artificially Defined "Local" Environment Is Needlessly Limiting

Parties addressing the issue of whether the FCC should define a "personal digital network environment" ("PDNE") as a limitation on indiscriminate Internet redistribution were overwhelmingly opposed to the Commission's undertaking such an endeavor.[4] Even the concept's original proponent -- MPAA -- admitted that the term had "engendered considerable confusion."[5] This proceeding is not, however, about using technical means and government regulation to confine content to some ill-defined artificial "local environment," as MPAA suggests.[6] Instead, as the Commission has noted, the results of this proceeding should not "foreclose use of the Internet to send digital broadcast content where it can be adequately protected from indiscriminate redistribution."[7]

Electronics North American Corporation, in MB Docket No. 02-230 (filed Feb. 13, 2004) ("Philips Comments") at 1-2.

[4] *See, e.g.,* Consumers' Comments at 11-13; Comments of Verizon, in MB Docket No. 02-230 (filed Feb. 13, 2004) ("Verizon Comments") at 3-6.

[5] MPAA Comments at 8. Another party expressed concern that whatever approach the FCC takes, it should go no further than copyright law permits. Comments of Office of the Commissioner of Baseball, *et al*, in MB Docket No. 02-230 (filed Feb. 13, 2004) at 6. These comments highlight the impossible task the FCC would be facing if it attempted to define a PDNE since that approach might ultimately conflict with copyright law.

[6] MPAA Comments at 7-8.

[7] *Order/FNPRM* at ¶ 10.

With few exceptions, the comments agreed that constraining content to an artificial "local environment" would do little to promote the DTV transition and might indeed hinder it.[8] Only the MPAA would require technologies to limit device connectivity to a "tightly defined geographic area around a covered product."[9] But even an exception that MPAA proposes to the limits, which is centered on "affinity-based controls,"[10] underscores the artificiality of its approach and demonstrates the extreme difficulties that would arise in applying it. MPAA's own examples also demonstrate the difficulty of applying a location-based concept. A device in a consumer's car may be in the "local environment" when it is in the garage but, under MPAA's construction, would lose that status once the car pulled out into the street.[11] And yet MPAA has offered no evidence that content bound to a device in a consumer's car, wherever that car happens to roam, is at risk for indiscriminate redistribution.

Digital television is at a promising yet perilous crossroads. Consumer DTV adoption has lagged. Sophisticated devices are just emerging that will drive that adoption as well as grow the market for IT and CE companies.[12] In this proceeding, the Commission has the power to spur or retard DTV adoption by permitting the development of innovative consumer DTV products. If the Commission adopts a broadcast protection regime that is too restrictive or promulgates rules that unintentionally chill innovation or result in approval of few new technologies, the DTV

---

[8] One commenting party noted "the utility of any content protection system in providing reasonable use of the content removes the inducement to defeat the system." Philips Comments at 17.

[9] MPAA Comments at 8.

[10] *Id.*

[11] *Id.*

[12] *E.g.*, the Media Center PC and other digital video recorders.

transition, consumers, and technology developers will suffer. Thus, the Commission should review with skepticism any proposal to restrict DTV content to some ill-defined, narrow "local environment."

The test of an approved technology should be governed not by a forced definition of a "local environment." Rather, the Commission should preserve its established, straightforward test, elegant in its simplicity, of whether a technology will reasonably inhibit indiscriminate redistribution of DTV content over the Internet.

III. Protection Technologies, Approved Through Methods Including Self-Certification With Functional Criteria, Will Successfully Inhibit Indiscriminate Redistribution and Promote Competition Among Technologies

Parties addressing the technology approval process also overwhelmingly agreed that an FCC-supervised process that includes self-certification for approved technologies meeting functional criteria is the best way for the Commission to further the DTV transition.[13] Again, if one of the methods adopted is based on open self-certification with a review process that utilizes functional criteria, the IT Coalition can also support adoption of the other criteria set forth in the *BPDG Final Report* at § 6.6.1 and Tab F-1.[14] Adoption of such additional approval methods would allow for certification of technologies that may be developed in the market based on considerations not fully comprehended in purely functional criteria, thereby furthering the goal of maximizing technology choices available to manufacturers. The IT Coalition's primary focus, however, is on functional criteria, which will provide guidance for vendors to develop innovative

[13] *See, e.g.*, MECA Comments at 3 n.1; Philips Comments at 12; Verizon Comments at 6.

[14] Final Report of the Co-Chairs of the Broadcast Protection Discussion Subgroup to the Copy Protection Technical Working Group at § 6.6.1 & Tab F-1 (June 3, 2002).

technologies and allow the Commission the flexibility necessary to permit self-certification and resolution of disputes in a manner that fosters the entry of competitive technologies.

A. Virtually All Commenting Parties Agree That Functional Criteria Are Necessary To Promote Innovation and That They Should Offer Sufficient Guidance to Technology Providers To Self-Certify Technologies

Content protection technology providers,[15] device manufacturers,[16] and consumer groups[17] all support self-certification using functional criteria as one method of approval. The lone dissenter is the MPAA, which argues that the content industry, including broadcasters, should serve as the ultimate arbiters for approving technologies for use with the broadcast flag.[18] The MPAA, however, offered no legitimate justification for assigning such power to its members.

Encouraging technology providers to develop innovative and consumer-friendly technologies that will satisfy this market will be furthered through adopting functional criteria that give technology providers clear guidelines for technology development and self-

---

[15] *See* DTLA Comments at 7-10.

[16] *See* Comments of ATI Technologies, Inc. in MB Docket No. 02-230 (filed Feb. 13, 2004) ("ATI Comments") at 1-2; CEA Comments at 4-5; and, Comments of Philips at 5-8. (Philips suggests, however, a "transformation" to self-certification. "After the Commission approves multiple digital broadcast content protection technologies pursuant to the Interim Approval rules, and there is an opportunity to evaluate their effect on the marketplace, it would be appropriate for the Commission to revisit these rules, especially with a view toward moving to a true self-certification approach." *Id.* at 8.)

[17] *See* Comments of the Center for Democracy and Technology in MB Docket No. 02-230 (filed Feb. 13, 2004) ("CDT Comments") at 7-8; Comments of the Home Recording Rights Coalition in MB Docket No. 02-230 (filed Feb. 13, 2004) ("HRRC Comments") at 5-6.

[18] MPAA Comments at 3.

certification. The functional criteria proposed by several commenting parties provide the solid foundation manufacturers need to develop such innovative products.[19]

In its initial comments, MPAA criticizes early efforts of several technology companies to develop functional criteria.[20] MPAA claims that the guidelines in those first efforts fail to limit "the extent of redistribution that a . . . technology qualifying under such criteria would permit."[21] This is a misleading argument. The very limits that the MPAA would itself impose are vague and ever-shifting -- first the PDNE, now some artificial "tightly defined" "local environment." MPAA's proposed approval criteria provide no more guidance than "we'll know it when we see

---

[19] *See* IT Comments at 11-14; DTLA Comments at 8-12 & "DTLA Proposed Functional Criteria" attachment; Philips Comments at 12-22. The IT Coalition, however, must object to Philips' claim that no entity has challenged the assertion that watermarking will effectively and pervasively give content owners the protection they seek. Philips Comments at 10. While the IT Coalition does not want to eliminate any technology from consideration, as long as it meets the functional criteria, watermarking has been considered and not been adopted for use with any content protection system. *See* DVD CCA website http://www.dvdcca.org/ (last visited March 13, 2004 ("The Interim Board of Directors of the DVD Copy Control Association (DVD CCA) ended its term July 31, 2002 without selecting a new embedded data (watermarking) copy protection technology."). The nation's best technologists agree with the Commission that watermarking is not now mature, and they believe that it is not likely to become mature anytime in the reasonably foreseeable future. *See* Darko Kirovski and Fabien Peticolas, Replacement Attacks on Arbitrary Watermarking Systems, http://www.cs.ucla.edu/~darko/papers/drm.pdf (last visited March 13, 2004); M. Kutter, F.A.P. Petitcolas, "Fair Benchmark for Image Watermarking Systems," in Proc. SPIE Security and Watermarking of Multimedia Contents, San Jose, CA, USA, Jan. 1999, vol. 3657, at 226-239, http://citeseer.nj.nec.com/kutter99fair.html (last visited Mar. 13, 2004); M.K. Mincuk, R. Venkateson, M. Kesal, "Cryptoanalysis of Discrete-Sequence Spread System Watermarks," 5th Workshop on Information Hiding, 2002, http://www.cs.ucla.edu/~darko/papers/ih02-kivanc.pdf (last visited Mar. 13, 2004).

[20] The MPAA based its criticism of functional criteria on *ex parte* filings of three IT Coalition members made prior to the Commission's adoption of the *Order/FNPRM*. MPAA Comments at 4-7. These filings included *Ex Parte* Letter, filed by Dell, Inc., MB Docket 02-230 (Oct. 24, 2003) ("Dell *Ex Parte*") and *Ex Parte* Letter, filed by Microsoft Corporation and Hewlett-Packard Corporation, CS Docket 97-80, PP Docket 00-67 (Aug. 8, 2003).

[21] MPAA Comments at 5.

it." The answer is much simpler. The Commission itself has defined the limits -- indiscriminate Internet redistribution -- and the functional criteria proposed by the IT Coalition expressly state that an approved "digital content protection method must provide reasonable constraints to impede the indiscriminate redistribution of Marked or Unscreened Content to the public."[22]

The MPAA also criticizes the early proposals of functional criteria for failing to "define the minimum levels of protection that must be afforded content to qualify . . . ."[23] Yet, nowhere do the MPAA's own rules specify a minimum level of protection.

The proposed functional criteria described in the IT Coalition's initial comments answer MPAA's criticisms. Because digital technology continues to advance at a rapid pace, carefully crafted strength and robustness rules such as those included in the IT Coalition's initial comments provide adequate guidance to developers to create technologies that will fulfill the goal of inhibiting indiscriminate Internet redistribution while providing adequate flexibility and investment incentives to encourage the development of new and innovative technologies.[24]

B. Functional Criteria Will Provide Sufficient Guidance to the Commission To Resolve Oppositions to Self-Certification Under Those Criteria

A key to successful administration of the broadcast protection regime will be Commission adoption of flexible yet clear guidelines for resolution of disputes triggered by oppositions to self-certification under functional criteria. Parties commenting in this proceeding, other than the MPAA, assert that functional criteria will provide the Commission the guidance to

---

[22] IT Coalition Comments at 11.

[23] *Id.*

[24] *See* IT Coalition Comments at 11-12.

readily resolve any such disputes. Only the MPAA appears to lack faith in the Commission's ability to apply such functional criteria.

The MPAA states that "in all likelihood [functional criteria will] result in an authorization process that may become mired in procedural and substantive challenges . . . ."[25] First, this prediction supports self-certification. Self-certification will allow the Commission to conserve its resources for cases in which truly meritorious objections are filed. Second, the IT Coalition has faith that participants in the self-certification process will not file frivolous oppositions but that, if they do, the Commission will have no trouble filtering out such meritless challenges. The functional criteria the IT Coalition proposed in its initial comments provide the Commission with sufficient guidance to dismiss frivolous challenges and resolve truly substantive disputes.

IV. Rescission Should Only Be Used in Extraordinary Circumstances

All comments were unanimous on one issue: the Commission should never retroactively revoke approval of a technology.[26] The bulk of the comments also agreed that "rescission" or "de-listing" of a technology should only be used in extraordinary circumstances.[27]

---

[25] MPAA Comments at 6.

[26] Some confusion seems to have arisen over the use of the term "revocation." The IT Coalition understands and utilizes this term to mean disablement of particular devices by the technology provider based upon a finding that the affected devices have been hacked or compromised. The IT Coalition uses the terms "rescission" or "de-listing" to apply to a determination by the FCC that a particular technology may no longer be used because, as explained in this section, it has been irrevocably compromised in a manner that actually harms content providers to a greater degree than de-listing would harm consumers, manufacturers, and technology providers.

[27] *See, e.g.,* CEA Comments at 8; DTLA Comments at 11; CERC Comments at 3; Comments of the Electronic Frontier Foundation in MB Docket No. 02-230 (filed Feb. 13, 2004) at 9-10; MPAA Comments at 8-10.

A. Virtually All Commenting Parties Agree That Rescission of a Technology's Approval Should Only Occur After a Substantial Showing of Harm and Considered Commission Judgment

Parties addressing the subject agreed that a technology should not lose authorization for use with the broadcast flag except upon a careful showing that the technology is no longer able to function in a manner that inhibits indiscriminate Internet redistribution.[28] The comments generally proposed that the party calling for de-listing would have to demonstrate the technology had been so compromised and that the breach is irreparable.[29]

The only divergence was in trying to define what might be meant by "substantially compromised." The MPAA assumes that substantial compromise automatically means that the compromised technology will "make indiscriminate redistribution of broadcasts simple, inexpensive, and devastating."[30] The IT Coalition would agree that a technology has been substantially compromised if there is *proof* that the compromise had actually resulted in devastating economic harm. The IT Coalition and most other commenting parties, however, would require proof of actual and substantial economic harm from continued use of the allegedly compromised technology.[31] Any academic "hack" of a technology should not be sufficient to rescind certification; real harm must be demonstrated.[32]

---

[28] *See, e.g.,* MPAA Comments at 9-11.

[29] *See, e.g., id.* at 10-11; DTLA Comments at 19; Philips Comments at 32-33.

[30] MPAA Comments at 9.

[31] *See, e.g.,* DTLA Comments at 20; EFF Comments at 10; MECA Comments at 3; and Consumers' Comments at 15-16, *citing* the DVD CSS example discussed by the Commission in the *Order/FNPRM.*

[32] *See* IT Coalition Comments at 18 for another discussion of the hack of the DVD CSS Copy Protection System, as an example of a widespread but not significant breach.

B. Rescission Must Balance the Harm of the Various Parties.

Finally, removal of certification, as recognized in many comments, will have a substantial and deleterious effect on consumers and device manufacturers. Demodulator and downstream products must be capable of "talking" to compatible products to display, transmit, and store DTV content. Removing a technology's approval means that compatible devices may not be available to consumers who have invested potentially hundreds of millions of dollars in DTV products. Moreover, manufacturers may be required to redesign products, retool production lines, and restock resellers with new products before the natural product cycle and cost recovery would dictate. Thus, rescission without a balancing of harms could result in just the opposite of the Commission's primary goal – it could impede the DTV transition by undermining consumers' confidence in DTV products while increasing their costs. Accordingly, the Commission should never de-list a technology's certification unless the harm to content owners manifestly outweighs the harm to consumers, manufacturers, and technology providers.

V. Conclusion

The Commission has made substantial progress in creating a well-balanced broadcast protection regulatory regime aimed at advancing the DTV transition. As urged by all commenting parties, the FCC should continue that effort by affirming this proceeding's goal: inhibition of indiscriminate retransmission of DTV content over the Internet. The Commission should also, again as many parties have advocated, spur innovation and reduce consumer cost by establishing functional criteria and allow technology providers to self-certify compliance in a regime that includes an opportunity for appeal to the Commission. Finally, the Commission should establish rescission rules that prospectively de-list an approved technology *only* when that

technology has been irreparably compromised, content owners experience actual harm, and that harm outweighs the harm to consumers, manufacturers, and technology providers.

Respectfully submitted,

BUSINESS SOFTWARE ALLIANCE
COMPUTER SYSTEMS POLICY
PROJECT

By_____
James M. Burger
M. Anne Swanson

of

Dow, Lohnes & Albertson, PLLC
1200 New Hampshire Avenue, N.W., Suite 800
Washington, DC 20036
(202) 776-2534

Their Attorneys

March 15, 2004