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Copyright Protection of Digital Television: The "Broadcast Flag"

Carey Lening[1]
Law Clerk
American Law Division

Summary

This report addresses the adoption of a "broadcast flag" system by the Federal Communications Commission (FCC) to protect digital television (DTV) broadcasts from unauthorized redistribution. The report also briefly addresses litigation and possible implications of the FCC's Report and Order concerning Digital Broadcast Content Protection.

Introduction. Technological advances, a looming statutory deadline, and the need to reclaim analog spectrum occupied by television broadcasters has put digital television (DTV) on a fast track. At the same time, development of digital television has necessitated balancing competing interests – those of content holders, and those of the consumer and technological industries. Reconciling these interests has led to the development of a "broadcast flag" to combat unauthorized redistribution of content broadcast through digital television signals. The move to protect digital content has been given urgency by the Federal Communications Commission's (FCC) determination that broadcast transmissions be digital by December 31, 2006.[2]

What is DTV?. Digital Television (DTV) is a new television service representing the most significant development in television technology since the advent of color television in the 1950s. Three major components of DTV service must be present for consumers to enjoy a fully realized "high definition" television viewing experience. First, digital programming must be available. Digital programming is content that is assembled with digital cameras and other digital production equipment. Second, digital programming must be delivered to the consumer via a digital signal. Third, consumers

[1] This report was prepared under the general supervision of Larry M. Eig, Legislative Attorney.

[2] Federal Communications Commission, *In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service: Fifth Report & Order*, 12 F.C.C. Rec. 12809, 12811-12812 (1997) (hereinafter FIFTH REPORT). In the Balanced Budget Act of 1997 (47 U.S.C. § 309(j)(14) (2004)), Congress codified the December 31, 2006 date.

must have digital television equipment capable of receiving the digital signal and displaying digital programming for viewing.[3]

Developing a protocol for transmitting and receiving digital television in a way that accommodated competing interests has proved challenging. Digital content, like other media, can be relatively easily duplicated and distributed, especially with the aid of the Internet.[4] Unlike other types of content, duplication of digital information does not degrade the original. Whereas the quality of a VHS tape degrades after successive copies, a DVD may be copied almost infinitely with no effect on the quality of the medium. It is due to the ease and inexhaustible potential of copying digital media, coupled with the proliferation of peer-to-peer services (such as Morpheus and Kazaa), that content providers have greeted this new technology with some trepidation.

The Broadcast Flag. The "broadcast flag" is a combination of technical specifications and federal regulations designed to combat unauthorized redistribution of content broadcast through digital television (DTV) signals. Its adoption was prompted largely by the Federal Communications Commission's (FCC) determination that broadcast transmissions be digital by December 31, 2006.[5] The FCC imposed a transition to DTV in part to capitalize on the sharper images, CD-quality sound and wider screen angles that are available from advanced digital technologies. But in addition to the technological impetus, the FCC has also been motivated by the knowledge that broadcasters, upon receiving digital spectrum allotments, must relinquish their analog spectrum allotments to the FCC. The analog spectrum will in turn be auctioned for other commercial and public interests. Content providers, fearing widespread piracy that would endanger aftermarket sales (such as cable re-broadcast, and DVD sales), urged the FCC to provide for a means to protect their assets. Meanwhile, consumer electronics and information technologists, as well as consumer rights groups, came together in an effort to minimize the possible negative outcome that a wide-scale regulation might have imposed.

The technical specifications behind the broadcast flag were a compromise measure, premised on an understanding that more restrictive approaches (such as encrypted signals created at the source of transmission) imposed economically or technologically infeasible conditions. The compromise came after a consortium of content providers, consumer electronics and information technology groups came together, forming the Broadcast Protection Discussion Group (BPDG).[6] The result of this consortium was a "Final

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[3] For more information on DTV, see CRS Report RL31260, *Digital Television: An Overview*, by Lennard Kruger.

[4] However, it should be noted that while duplication is fairly simple, distribution, especially of high-end digital content, can be quite time consuming. For example, over broadband connections, while a music file may take a matter of minutes, television shows in standard analog format take a number of hours. Digital programs (such as an hour of High Definition television programming) in turn, may take upwards of 10-15 hours to successfully download.

[5] FIFTH REPORT at 12811 ¶ 5.

[6] This collaboration was open to any group or individual wishing to participate, with the exception of the press. BPDG, *Final Report of the Co-Chairs of the Broadcast Protection Discussion Subgroup to the Copy Protection Technical Working Group*, FN 4, (June 3, 2002)

(continued...)

Report" published in June 2002, which was delivered to Representative Billy Tauzin, then-Chairman of the House Committee on Energy and Commerce. The report suggested a set of "robustness and compliance" rules for devices capable of demodulating digital television signals, which would require that such devices protect "flagged" content from being recorded by unauthorized devices. However, the flag itself would not require that all machines recognize it, and would act only as a means to halt unauthorized use in machines capable of detecting it.

In November 2003, the FCC published a Report and Order in the matter of digital broadcast content protection, which required all digital devices capable of receiving digital broadcast over-the-air, and sold after July 1, 2005, to incorporate a standard content-protection technology that would recognize the broadcast flag, and limit redistribution when the flag is recognized.[7] The FCC's regulations apply the flag mark to all devices and receivers that are capable of receiving digital content. Such devices include, but are not limited to: televisions, computers, digital video-recorders (such as TiVo), and DVD players. The broadcast flag itself is optional for broadcasters, allowing them to determine how much copy-protection they wish to impose on their digital broadcast content.[8]

Because the flag does not prevent the distribution of content to non-compliant devices, a consumer who continues to use an older television set (or theoretically, a non-compliant demodulator) will still be able to receive and copy television programs in non-digital form. In addition, digital television sets made prior to July 1, 2005, will still enjoy digital content with no obstruction. In citing its support for a flag-based approach over encryption or other means, the FCC noted concerns over "the implementation costs and delays" associated with other solutions.[9]

In addition to the "compliance" requirements imposed on receiving devices, the FCC also imposed a "robustness" requirement that forces makers of consumer devices to ensure that circumvention is difficult. The standard of care adopted by the FCC was that of "an ordinary user using generally available tools or equipment."[10]

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[6] (...continued)
(available at [http://www.cptwg.org/Assets/TEXT%20FILES/BPDG/BPDG%20Report.DOC]).

[7] FCC, *In the Matter of Digital Broadcast Content Protection: Report and Order and Further Notice of Proposed Rulemaking*, MB Docket No. 02-230, 18 F.C.C.R. 23550, 23589 (November 4, 2003) (hereinafter REPORT AND ORDER).

[8] The amount of copy protection has a potential for variability. For instance, a content provider such as C-SPAN may decide that no copy protection is necessary, and would set the flag to an off-position. Digital content could therefore be available without any restrictions to the user. However, a broadcaster who sought to show pay-per-view digital content might choose to set the flag to an on-position, which would disallow any form of copying, and could also potentially add a setting to restrict the amount of time a user has to watch the program after purchase. Alternatively, a content provider may decide that individual copying is permitted, provided a user views that copy on a secure, compliant device.

[9] REPORT AND ORDER at 23561.

[10] REPORT AND ORDER, Appendix B, at 23592.

FCC Authority. The FCC derives its regulatory authority over digital television from both direct and ancillary statutory authority.

Digital Television Implementation Under the Telecommunications Act of 1996. The Telecommunications Act of 1996 directed the FCC to promulgate regulations regarding the licensing of advanced television services. The act defined "advanced television services" as "television services provided using digital or other advanced technology."[11] In prescribing such regulations, the Commission was authorized to adopt such "technical and other requirements as may be necessary or appropriate to assure the quality of the signal used to provide advanced television services ... and prescribe such other regulations as may be necessary for the protection of the public interest, convenience, and necessity."[12]

Pursuant to the Telecommunications Act of 1996, the FCC has issued regulations regarding spectrum allocation for digital television stations and has established a timeline for the implementation of digital broadcasting by licensees.[13] At least one court has agreed that in regard to television digital tuners, the FCC possessed reasonable authority to act, based on an "unambiguous command of an act of Congress."[14]

Copyright Protection. While copyright protection generally lies outside the scope of the FCC, the Commission may exercise jurisdiction over matters not explicitly provided for by statute if the exercise is "reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting."[15] The FCC has asserted that television receivers generally, and digital television receivers specifically, fall within the scope of that authority.[16] Under the FCC Report and Order, "pursuant to the doctrine of ancillary jurisdiction, we adopt use of the ... flag as currently defined for redistribution control purposes and establish compliance and robustness rules for devices with demodulators to ensure that they respond and give effect to the ... flag." However, the FCC initially put off deciding on permanent mechanisms for approving "content protection and recording technologies to be used in

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[11] 47 U.S.C. 336(i)(1) (2000).

[12] 47 U.S.C. 336(b)(4) and (5).

[13] 47 C.F.R. 73.624 (2004). *See also*: [http://www.fcc.gov/mb/policy/dtv/] for an overview of the FCC's activities with regard to the implementation of DTV.

[14] *Consumer Electronics Association v. FCC.*, 347 F.3d 291, 301 (D.C. Cir. Oct. 28, 2003).

[15] *U.S. v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968).

[16] As to ancillary jurisdiction, see *Southwestern Cable*, at 178. Concerning the FCC's ancillary authority, Congress has given the Commission "a comprehensive mandate," with "expansive powers," which has led the courts to conclude that the Communications Act of 1934 provides the Commission with ancillary jurisdiction over matters that are related to the provision of radio or television service, though not specifically enumerated in the act. Historically the FCC has exercised its ancillary jurisdiction to promulgate regulations in a number of areas. See *Southwestern Cable*, at 173, 177; *U.S. v. Midwest Video Corp*, 406 U.S. 649 (1972). In addition to this historic authority, the FCC relies on the definition of "wire/radio communications," which includes "all incidental 'instrumentalities, facilities, apparatus and services' that are used for the 'receipt, forwarding, and delivery' of such transmissions" as a basis for its authority over television receivers. REPORT AND ORDER at 23563.

conjunction with device outputs." Instead, in its Report and Order, the FCC proposed examination of such issues at a later time, and established an interim certification process for currently-proposed devices.[17] In addition to the need to regulate television broadcasting, the FCC's action arguably protects broadcasters from any unreasonable loss in advertising revenue that may result from unauthorized sharing of copyrighted digital television broadcasts.

However, the FCC was careful to note that the "scope of our decision does not reach existing copyright law," and that its rulemaking established a "technical protection measure" that did not change the underlying "rights and remedies available to copyright holders." In addition, "this decision is not intended to alter the defenses and penalties applicable in cases of copyright infringement, circumvention, or other applicable laws."[18]

Possible Implications of the Broadcast Flag. While the broadcast flag is intended to "prevent the indiscriminate redistribution of [digital broadcast] content over the Internet or through similar means," the goal of the flag was not to impede a consumer's ability to copy or use content lawfully in the home, nor was the policy intended to "foreclose use of the Internet to send digital broadcast content where it can be adequately protected from indiscriminate redistribution."[19] However, current technological limitations have the potential to hinder some activities which might normally be considered "fair use" under existing copyright law.[20] For example, a consumer who wished to record a program to watch at a later time, or at a different location (time-shifting, and space-shifting, respectively), might be prevented when otherwise approved technologies do not allow for such activities, or do not integrate well with one another, or with older, "legacy" devices. In addition, future fair or reasonable uses may be precluded by these limitations. For example, a student would be unable to email herself a copy of a project with digital video content because no current secure system exists for email transmission.

In addition, some consumer electronics and information technology groups contend that the licensing terms for approving new compliant devices are limiting, and may potentially stifle innovation, especially with regard to computer hardware.[21] While the FCC in its Report and Order declined to establish formal guidelines for which "objective

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[17] FCC, REPORT AND ORDER, at 23575.

[18] *Id*. at 23555.

[19] *Id*.

[20] An owner of a copyright has a number of exclusive rights under the Copyright Act (17 U.S.C. § 101 *et seq.*), including the exclusive right to reproduce and distribute copies. To establish a claim of copyright infringement, the plaintiff must show ownership of the copyright and copying by the defendant. However, a claim of copyright infringement is subject to certain statutory exceptions, including the fair use exception (17 U.S.C. § 107 (2004)). This exception "permits courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that statute is designed to foster" (*Dr. Seuss Enters., L.P. v. Penguin Books USA*, 109 F.3d 1394, 1399 (9th Cir. 1997)).

[21] Center for Democracy and Technology, *Implications of the Broadcast Flag: A Public Interest Primer*, (December 2003) (available at [http://www.cdt.org/copyright/031216broadcastflag.pdf]).

criteria should be used to evaluate new content protection and recording technology," it has stated an intention to take up these issues in the future.[22]

Finally, consumer rights and civil liberties groups worry about the possibility that such content protections will limit the free flow of information and hamper the First Amendment. This concern is expressed most prominently regarding news or public interest-based content, or works that have already entered the public domain. Despite suggestions raised by consumer rights groups, the FCC has so far declined to adopt language to prevent content providers from using the broadcast flag on such programs, largely because of the "practical and legal difficulties of determining which types of broadcast content merit protection from indiscriminate redistribution and which do not."[23]

Current Legal Challenges to the Broadcast Flag. In October of 2004, the American Library Association (ALA), Association of Research Libraries, American Association of Law Libraries (AALL), Medical Libraries Association and others, petitioned the U.S. Court of Appeals for the District of Columbia Circuit to review the FCC's Report and Order. Bringing a challenge on behalf of "libraries, librarians and educators ... and ... television viewers and computer users," the petitioners, as parties to the agency proceedings, are challenging the FCC's statutory authority to establish the broadcast flag system under the Communications Act of 1934. Petitioners have requested that the court set aside and vacate the FCC's order. The parties to the action specifically allege that:

> the Commission has unlawfully and arbitrarily required that all devices with demodulators comply with a content protection mechanism known as the 'ATSC flag' or 'broadcast flag,' and has thereby acted both in excess of its statutory authority and contrary to the factual evidence in the record.[24]

To date, the government has responded, and the petitioners have filed a reply brief. The Petitioners, in their reply brief, argue that not only does the FCC lack the ancillary jurisdiction to impose the broadcast flag, but Congress has specifically circumscribed the Commission's authority over television receivers under 47 U.S.C. §§ 303(s) and 330(a), the "All Channel Receiver Act," which requires televisions sold in interstate commerce to be "capable of adequately receiving all frequencies allocated by the Commission to television broadcasting."[25] Additionally, petitioners challenge the FCC's ability to effectuate new "copyright policy" that would otherwise remain under the control of Congress.[26] Oral arguments, heard on February 22, 2005, have yielded an order requiring the Petitioners to further show that they have suffered an injury, and thereby have standing to sue.[27]

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[22] REPORT AND ORDER at 23578.

[23] *Id*. at 23568-23569 (internal citation omitted).

[24] *American Library Association, v. FCC*, Petition for Review, No. 04-1037, *1, *2, (D.C. Cir., October 4, 2004).

[25] 47 U.S.C. §§ 303(s) (2005); *American Library Association Reply Brief*, p. 10.

[26] *American Library Association Reply Brief*, at 12.

[27] *American Library Association*, 2005 WL 588994 (D.C. Cir., March 15, 2005).