

manufacturers to attach multiple set back devices to the television receiver. This narrow interface standard, which is designed to accommodate digital transmissions and future advancements in video transmissions, is completely transparent to the consumer and will ensure that no video delivery medium impedes another provider from reaching the consumer.⁵⁹

Under this plan, as advanced television systems are deployed, consumers will have the flexibility to lease or purchase set back equipment from a variety of video delivery media. Some consumers may choose to purchase a digital receiver but continue to use the analog receiver in another part of the home. Others will decide not to buy a digital receiver and instead obtain digital services by leasing or buying a set top or set back device. The point is that consumers will have options. The Broadcasters would limit these options by imposing a universal digital standard.

C. The Broadcasters Implementation Scenarios Would Impermissibly Extend Cable's Must Carry Obligations

In arguing for imposition of the broadcast DTV standard on cable, the Broadcasters present four implementation "scenarios" for the delivery of broadcast DTV signals over digital or analog cable systems for reception by digital or analog receivers. Taken together, these scenarios evidence a real broadcaster goal in this

⁵⁹ See, e.g., Compatibility Between Cable Systems and Consumer Electronics Equipment, ET Docket No. 93-7, Memorandum Opinion and Order at para. 38, released April 10, 1996.

proceeding: To incorporate burdensome mandatory carriage obligations into the government DTV standard. Although the words “must carry” are not used, the Broadcasters propose to make carriage of unknown and untested digital services inextricably bound up in the standard.

NCTA addressed the must carry issues in its comments on the Fourth Further Notice.⁶⁰ We argued that the existing one-channel analog must carry regime is unconstitutional. And given the legal uncertainty of the current must carry rules it is, at a minimum, premature for the government to compel carriage of additional services at this time. We argued, however, that even if the Supreme Court sustains the rules, there is no justification for expanding broadcast station carriage rights beyond their existing analog channels. Under Supreme Court precedent,⁶¹ the Government would have to demonstrate a real threat to the system of free broadcasting without carriage of new digital services -- a constitutional burden that cannot be met in today’s broadcast environment, particularly with respect to the carriage of new digital services not available when the must carry law was enacted.

⁶⁰ See generally, NCTA Comments on Fourth Further Notice (Mandatory carriage rules infringe on cable operators’ ability to respond to viewer preferences and injure cable programmers by cutting off their access to viewers and putting them at a competitive disadvantage vis-à-vis broadcast stations. Broadcasters should not be granted carriage rights beyond their existing analog channels. As cable operators upgrade their systems with fiber and digital compression technology and prepare to compete in telecommunications, they will utilize the capacity to deliver innovative video, voice and data services.)

⁶¹ See Turner Broadcasting System, Inc. v. FCC, 114 S. Ct. 2445 (1994)

Under the Broadcasters' standards-implementation scenarios, broadcast stations would be free to experiment while cable operators would be required to commit an enormous amount of channel capacity to broadcast signals. In seeking mandatory cable carriage of everything transmitted in the much sought-after additional 6 MHz of spectrum, the Broadcasters would not only deprive consumers of diverse programming choices, but also would shield themselves from competition from cable services that might otherwise be delivered in the capacity required for carriage of the additional broadcast services.

In short, the Broadcasters want cable to subsidize their entry into digital television by guaranteeing them scarce capacity on cable systems.⁶² But even if must carry survives in a digital world of megabits per second, there is no reason to define cable's carriage of broadcast digital signals in terms of full 6 MHz slots (especially where broadcast stations may only transmit high bit rate HDTV signals intermittently if at all). Cable operators are entitled to -- and need -- the right to repackage and distribute all digital signals from the cable headend in a manner they determine makes the most efficient use of scarce channel capacity.

1. Scenario I - DTV broadcast signal, analog cable system, NTSC set

In Scenario I, the Broadcasters seek a requirement that cable systems "pass through" a 6 MHz broadcast DTV signal without any demodulation or

⁶² The robustness and versatility of digital signals may facilitate more sophisticated A/B switches or other devices on television receivers that are a far less restrictive alternative to intruding on cable operators' and cable programmers' First Amendment rights.

remodulation of the signal. Assuming that mandatory carriage of any digital services are required, under this proposal cable operators would have to preserve 6 MHz of valuable channel capacity for each broadcast digital signal. As we argued in the Fourth Further Notice, however, if must carry passes constitutional scrutiny, broadcasters that transmit multiple services within 6 MHz should only be entitled to carriage of one program stream, not 6 MHz of capacity. Thus, if the broadcast station employs a 6-1 compression scheme, cable systems must have the flexibility to demodulate the signal in order to extract the program stream entitled to carriage.

By urging the Commission to prohibit cable operators from demodulating the broadcast digital signal, the Broadcasters are proposing to reduce cable's ability to repackage digital signals in twice the data rate of over-the-air transmissions. As the Broadcasters point out in their comments, cable systems have the capability to transmit in a 16 VSB high data rate mode of 43 megabits per second⁶³ or deliver the equivalent of two HDTV broadcast signals in a single 6 MHz channel. In standard definition mode (SDTV), cable can deliver upwards of 8-10 program streams in the same 6 MHz slot. Forcing cable to utilize the significantly lower data rate mode for broadcast digital services will diminish system efficiency and ultimately subscriber choice.⁶⁴

⁶³ Broadcasters' Comments at 29, note 48.

⁶⁴ In Scenario III, where there is a DTV broadcast signal, analog cable system and DTV set, the Broadcasters also seek a requirement that cable operators pass through the broadcast digital signal in 8 VSB form to the digital TV set. This too would deny cable's ability to use its 16 VSB double data rate capability and extend the must carry

Moreover, contrary to the Broadcasters' claims, demodulation and remodulation does not in any way degrade the signal. Digital signals are by nature more robust and more malleable than analog signals and they are either fully received or not there at all. Cable operators can easily demodulate the signal and repackage it into efficient double data rate slots without harming the signal.

2. Scenario II - DTV broadcast signal, digital cable system, NTSC set

Under this scenario, the Broadcasters argue that "ideally" cable systems should not down-convert any signals that they carry from digital to analog for receipt by NTSC sets. However, as with demodulation, the Broadcasters' suggestion that down-conversion degrades the signal is simply wrong. A digital signal that is down-converted to analog is delivered to an analog receiver in the resolution and signal quality of any other NTSC signal.⁶⁵ In any event, the purpose of this proposal -- explicitly stated by the broadcasters -- is to "encourage [i.e., force] consumers to purchase DTV sets capable of receiving undegraded DTV signals."⁶⁶ Such a result -- limiting a consumer's choices involving expensive home electronics by government fiat -- is obviously not in the public interest.

obligations of cable operators to all of a broadcast station's digital services regardless of viewer interest.

⁶⁵ It is common practice today for cable systems to down convert cable signals that have been distributed in digital form from the satellite to the cable headend. This is done in order to conserve satellite spectrum.

⁶⁶ *Id.* at 30.

Alternatively, the Broadcasters argue that if cable down-converts any digital cable programming to analog format for reception by NTSC sets, it should be required to down-convert all digital broadcast signals. But if broadcasters are authorized a 6 MHz DTV "channel" to transmit multiple streams of digital programming, requiring cable operators to down convert such signals to analog would be catastrophic. Nearly all of a cable system's channel capacity would be consumed if all six of the broadcast digital program streams had to be converted to a 6 MHz analog channel.⁶⁷ A mandatory down-conversion rule would discriminate against cable programmers and disadvantage cable television in competition with broadcasters and other delivery media.

D. Broadcasters Should Not Be Permitted to Shift the Costs of Digital Conversion onto Cable Systems

The Broadcasters also assert that cable should bear the costs of ensuring sufficient commonality with broadcast DTV.⁶⁸ It is unclear what this means, but as we said in our comments on the Fourth Further Notice, cable operators saddled with must carry obligations will have to install expensive headend equipment to reconfigure and sort out any must carry signal from a broadcast station's multiple data stream.⁶⁹ There we urged the Commission not to allow broadcasters to extend their must carry rights through technological trickery -- mixing up the data stream

⁶⁷ See Comments of CATA at 5-7; TCI at 18-19 on Fourth Further Notice.

⁶⁸ Broadcasters' Comments at 29.

⁶⁹ NCTA Comments on Fourth Further Notice at 11, note 13.

in such a way that it is infeasible and cost-prohibitive to separate out the must carry signal. Moreover, if any cable system is required to carry a digital broadcast signal before the system has converted to digital, the cost to deliver the signal to the subscriber should be borne by the broadcast station.⁷⁰

CONCLUSION

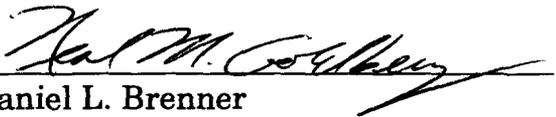
The certainty that would come from a “one size fits all” government mandate is far outweighed by its detriment to innovation and consumer choice. Government standards can only be changed through costly and protracted administrative rulemaking proceedings, slowed down even further by incumbents with a vested interest in the status quo. Therefore, the Commission should not mandate a digital TV standard. If the Commission decides to mandate any government DTV standards, cable and other media should not be required to comply with a particular modulation or transmission scheme. And there should be no direct or indirect requirement that cable systems bear the costs of modifying their systems to comply with the broadcast DTV standard. Imposing the broadcast standard on cable and other media -- let alone requiring them to pay the cost of impeding their own competitive standing -- will only stifle progress in digital technology by cable, satellites and others and foreclose advancements which would benefit the public.

⁷⁰ Id. at 16-17

For the reasons stated above and in our initial comments, the Commission should reject the proposal to mandate a DTV standard and instead should leave that decision to the marketplace.

Respectfully submitted,

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