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

ORIGINAL

In the Matter of	)	
Implementation of Section 302 of the Telecommunications Act of 1996	)	CS Docket No. 96-46
Open Video Systems	)	

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Reply Comments of BroadBand Technologies, Inc.

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SUMMARY

BroadBand Technologies, Inc., is the nation's pioneer in the development and production of switched digital broadband networks. The company's second-generation FLX 2500 platform is ideally configured to deliver video, voice, high-speed Internet access, and other advanced services on an integrated basis, regardless of whether the network operator chooses to provide video programming over an open video system or as a cable TV operator. Congress intended that both of these alternatives be viable video entry options for local exchange carriers (LECs). Moreover, there are many good public policy reasons for the Commission to encourage LECs to offer the open video systems option, including increasing competition and providing incentives to build advanced infrastructure. BroadBand Technologies agrees with many commenters that the open video system option will become viable only if the Commission adopts minimally intrusive regulations to implement the regulatory framework prescribed by Section 653 of the Telecom Act, without adding to it or otherwise imposing unnecessary burdens on open video system operators.

Given the consumer and competitive benefits of open video systems, the Commission should seek ways to encourage LECs to choose this option. At a minimum, the Commission should avoid adopting excessive and unnecessary regulations implementing Section 653. To the extent that the Commission burdens the open video systems option with too many regulatory burdens, it may as well not offer it as an option at all. Narrowly tailored regulation should be the principle that guides this rulemaking.

The Commission should reject proposals for detailed, prescriptive regulations affecting issues such as channel allocation, analog vs. digital channel capacity and allocation, channel sharing and positioning, and open video service rates. The Commission should rely

on the dispute resolution mechanism prescribed by Section 653 to resolve specific issues that may arise.

With regard to open video service rates, the Commission should adopt a rule that requires, simply, that rates be just and reasonable, and not unreasonably or unjustly discriminatory. Subjecting open video system operators to rate regulation, alone, would be sufficient to kill the open video system option.

The Commission also must avoid allowing the open video system concept to become hostage to cost allocation issues in the same way that video dialtone did. The Commission's current Part 64 rules are sufficient to segregate and distinguish between regulated (Title II) activities and unregulated activities (including open video systems and cable TV systems). However the Commission ultimately chooses to address the issue of cost allocation between telephone company operations and open video system or cable TV operations, the Commission should ensure:

- That its deliberations on the issue do not delay the deployment of open video systems or the offering of open video service; and
- That whatever approach it takes, the rules it adopts do not undermine the economic incentives for LECs and others to operate integrated telephony and video networks.

Finally, BroadBand Technologies concurs with the Commission's tentative conclusion that the capacity of such systems for the delivery of video programming "can be presumed to be unlimited."[1/] The essentially unlimited capacity of switched broadband networks is a further reason for the Commission *not* to adopt specific channel allocation rules, but rather justifies allowing open video system operators to manage the allocation process (or delegate it as a third party), subject to the general nondiscrimination obligation.

[1/] Implementation of Section 302 of the Telecommunications Act of 1996 -- Open Video Systems, CS Docket No. 96-46 (released March 11, 1996) at ¶ 18.

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Reply Comments of BroadBand Technologies, Inc.

I. Introduction

BroadBand Technologies respectfully submits these reply comments on the Federal Communications Commission (FCC or Commission) Notice of Proposed Rulemaking (NPRM) on implementation of the Open Video Systems provisions of the Telecommunications Act of 1996 (the Telecom Act).[1/]

BroadBand Technologies' interest in this proceeding is as a supplier of electronics hardware and software for switched digital broadband networks. The company was founded in 1988 on the conviction that such networks would emerge as the optimal platform for the delivery of voice, video programming, high-speed Internet access, and other services, once the shackles that prevented its potential customers, including local exchange carriers (LECs)

[1/] Implementation of Section 302 of the Telecommunications Act of 1996 -- Open Video Systems, CS Docket No. 96-46 (released March 11, 1996) ("*Notice*") at ¶ 18.

and cable operators, from competing in all these markets were removed. With the passage of the Telecom Act, that day has arrived.

The Telecom Act repeals the former statutory ban on LECs providing video programming directly to subscribers, and replaces it with a legal framework that seeks to encourage LEC entry into the video marketplace. The statute gives LECs multiple options for entering the market. They may: (1) provide video programming as a cable system operator under Title VI of the Communications Act; (2) provide video programming by means of an "open video system"; (3) provide video programming using radio communication technologies, such as MMDS; and (4) provide transmission of video programming on a common carrier basis under Title II of the Communications Act.[2/] The statute also expressly contemplates that a LEC may operate a cable system or an open video system on an integrated basis with its local exchange facilities.[3/]

It is of little direct concern to BroadBand Technologies whether LECs opt to enter the video market as cable operators or open video system operators, or even as common carrier video transmission providers. The company's second-generation Fiber Loop Access (FLX 2500) access and transport network is ideally configured for all of these alternatives. The FLX system has sufficient capacity to implement either an open video system or common carrier system, and an implementation cost low enough for it to be cost effective as the network platform for a cable TV system (a cost reduction that is the result of the second-generation technology evolution). It is also the ideal network infrastructure for the integrated

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[2/] *Telecommunications Act of 1996*, Pub. L. No. 104-104, 110 Stat. 56 (1996) (*Telecom Act*) at § 651.

[3/] *Id.* at § 651(b) and Telecommunications Act of 1996, U.S. House of Representatives Report 104-458 (*Conference Report*) at 172.

delivery of voice, video, high-speed Internet access, and other advanced services. The FLX 2500 platform allows LECs complete flexibility in choosing among the wire-based video entry options that are now available to them.

As a practical matter, BroadBand Technologies will benefit from LEC video entry under a number of scenarios. However, it should matter to the Commission whether the open video system option emerges as a viable video entry alternative for the LECs. With open video systems, the Commission can finally achieve the policy goals it first enunciated in the video dialtone proceeding: "to eliminate artificial regulatory barriers to competitive entry and to efficient investment, thereby facilitating competition in video delivery services, investment in infrastructure, and greater diversity in video programming."[4/]

The public interest benefits from the deployment of open video systems exceed the benefits of the other alternatives available to the LECs. Open video systems create a new level of competition in the video programming market. Programmers no longer have to worry about access to delivery systems; instead, under the open video system model, multiple unaffiliated video programming providers have access to these systems. This raises the prospect of multichannel video programming providers competing with each other on the system, as well as with cable TV, Direct Broadcast Satellite services, and other physically separate multichannel systems. As such, the open video system option has the potential to generate a truly competitive video environment to the ultimate benefit of the consumer.

[4/] *In the Matter of Telephone Company-Cable Television Cross-Ownership Rules*, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking, 10 FCC Rcd 244 (1994), at 254.

It was this potential for open video systems to foster "vigorous competition" that prompted Congress to limit the regulatory obligations faced by open video system operators.[5] Congress hoped that these deregulatory steps would "encourage common carriers to deploy open video systems."[6] Wherever possible, the Commission should take additional deregulatory steps, consistent with the statute, to promote open video systems. Such Commission efforts also would fulfill, in part, the Commission's obligation under Section 706 of the Telecom Act to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[7]

Consistent with the Commission's previously stated policy goals, BroadBand Technologies agrees with many commenters that the open video system option will become viable only if the Commission adopts minimally intrusive regulations to implement the regulatory framework prescribed by Section 653 of the Telecom Act, without adding to it or otherwise imposing unnecessary burdens on open video system operators. LECs are free to enter the video market as cable TV operators, and they will do so if the burdens imposed on open video systems are so onerous that they outweigh the very limited regulatory relief from which such systems will benefit. As Viacom states, "(g)iven the other alternatives now

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[5] *Conference Report* at 178.

[6] *Id.*

[7] Telecom Act at § 706. Advanced telecommunications capability is defined as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications." The ideal open video system infrastructure is a switched broadband system, because it affords essentially unlimited capacity and can therefore serve a multitude of programmers providing an infinite array of content choices to customers.

available to LECs for entering the video marketplace,. . . open video systems could be rendered a dead letter by unnecessarily rigid implementing rules."[8]

II. The Commission Should Implement Section 653 in the Least Regulatory, Most Flexible Manner Possible

BroadBand Technologies urges the Commission to heed the lessons of the video dialtone proceeding, which was terminated under the Telecom Act. BroadBand Technologies was an active participant in all phases of the proceeding, and strongly supported the Commission's efforts to promote the video dialtone concept. BroadBand Technologies is the equipment supplier for the only commercial video dialtone system in existence.[9] While the Commission did its best to make video dialtone work, it was constrained by the statutory framework then in place. The exhaustive regulatory burdens imposed on video dialtone as a common carrier service ultimately undermined the Commission's and the industry's vision for the service. To provide but one small example, every time a LEC decided to modify the architecture of a proposed video dialtone system, it was required to amend its Section 214 application, including its revenue projections. The elaborate Title II regulatory process created numerous opportunities for opponents to game the regulatory process and thwart the Commission's objectives.

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[8] Comments of Viacom, Inc. at 2.

[9] BroadBand Technologies is the equipment supplier for Bell Atlantic's commercial video dialtone system in Dover Township, New Jersey. BroadBand Technologies equipment also has been deployed in Richardson, Texas for SBC Communications, in a cable TV system application, and in distance learning applications in over 100 schools in New Jersey. There are also trial systems in the NYNEX, BellSouth and US West territories, as well as in South Korea and Canada.

Accordingly, Congress determined in the Telecom Act that open video systems will be regulated under Title VI "in lieu of, and not in addition to, the requirements of Title II."[10] Moreover, open video system operators should be "allowed to tailor their services to meet the unique competitive and consumer needs of individual markets."[11]

As mentioned above, there are many good public policy reasons for the Commission to encourage LECs to offer the open video systems option, including increasing competition and providing incentives to build advanced infrastructure. However, the Commission is faced with a difficult situation. The legislation provides few "carrots" for LECs to choose the open video systems option over the cable option. The only significant relief from Title VI cable TV obligations that a LEC would receive, in return for assuming the burdens of an open video system operator, is exemption from local cable franchising. Yet the LEC would still be subject to many of the regulatory obligations of a cable operator, including the obligation to carry public, educational, and governmental (PEG) access channels, and compliance with the FCC's must-carry/retransmission consent, program access, sports exclusivity, network non-duplication, syndicated exclusivity, and other regulations.

In addition, a LEC that chooses to establish an open video system would be required to make two-thirds of the system's activated channel capacity available to unaffiliated programmers, if demand for carriage exceeded the system's capacity. In contrast, cable TV operators are free to decide alone what programming to offer over the vast majority of the channels on their systems. Thus, in the open video system model, if a programmer that does not like the terms under which a telco is willing to purchase programming for inclusion in

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[10] Telecom Act at § 653(c)(3).

[11] *Conference Report* at 177.

the LEC's own programming package, it has the alternative of requesting capacity on the open video system and providing its programming directly to the same subscribers. In the cable model, it has no such alternative. This additional leverage over programmers alone is probably sufficient to persuade most LECs to choose the cable option.

In short, there are limited regulatory incentives for a LEC to choose the open video system option. Given the consumer and competitive benefits of such systems, the Commission should seek ways to encourage LECs to choose this option. At a minimum, the Commission should avoid adopting excessive and unnecessary regulations implementing Section 653. To the extent that the Commission burdens the open video systems option with too many "sticks," it may as well not offer it as an option at all. Narrowly tailored regulation should be the principle that guides this rulemaking.

In this regard, BroadBand Technologies wholeheartedly endorses Viacom's recommendation that the Commission "structure its regulations in a manner that allows LECs -- and any other telecommunications entity interested in offering [open video systems] -- reasonable flexibility consistent with the non-discriminatory foundation established by Congress."[12/] Similarly, the Alliance for Public Technology (APT) advises the Commission to give the open video system operator "the degree of flexibility and business discretion sufficient to allow it to compete with the existing multichannel video operators in the market."[13/]

12/ Comments of Viacom at 2-3.

13/ Comments of the Alliance for Public Technology at 6.

A. *The Commission Should Reject Proposals to Impose Onerous Regulatory Burdens on Open Video System Operators*

Cable TV industry interests urge the Commission to adopt detailed rules implementing Section 653 and impose additional burdens on open video systems, reaching far beyond what Congress intended or even allows. Their sole purpose is to neuter the open video system option, and their recommendations accordingly are transparently self-serving. For instance, several cable TV industry commenters propose rate of return-style regulation of open video system service rates, even though their own rates would be deregulated immediately upon commencement of the open video system's operations. BroadBand Technologies notes, in the first instance, that such common carrier-like regulation of open video systems is expressly prohibited by the Telecom Act.[14] Furthermore, because a LEC would, in most instances, be free from any rate regulation if it opted to be a cable operator, subjecting open video system operators to rate regulation, alone, would be sufficient to kill the open video system option.

The Commission should adopt a rule that requires, simply, that open video service rates be just and reasonable, and not unreasonably or unjustly discriminatory. Open video systems will operate in a competitive multichannel video programming provider market, which will exert the necessary discipline on open video system rates. The Commission is correct that "the best way to encourage entry into the video marketplace through an open video system" is to allow open video system operators "flexibility to establish pricing

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[14] Section 653(b)(1)(A) directs the Commission to ensure that rates for carriage on open video systems are just and reasonable, and not unjustly or unreasonably discriminatory. The Commission can and should rely on market forces to enforce this provision, given the fact that open video systems will enter the multichannel video programming distribution market with zero market share and will compete with incumbent cable systems and others.

mechanisms in the first instance."[15] Conversely, the single best way to discourage the deployment of open video systems is for regulators to set or otherwise regulate the rates charged on such systems.

The Commission also should reject proposals for detailed, prescriptive regulations affecting other issues, such as channel allocation, analog vs. digital channel capacity and allocation, and channel sharing and positioning. As recommended by APT, the LECs, and other commenters, the rules adopted in this proceeding should "generally repeat the statutory standards."[16] The statute directs the Commission to adopt regulations prohibiting the operator of an open video system from discriminating among video programming providers with regard to carriage on its system. To implement this directive, the Commission should adopt its proposal "to adopt a regulation that simply prohibits an open video system operator from discriminating against unaffiliated programmers in its allocation of capacity."[17] Beyond this general obligation, open video system operators should be allowed "latitude to design a channel allocation policy consistent with this general rule."[18] The Commission should rely on the dispute resolution mechanism prescribed by Section 653 to resolve specific issues that may arise.[19]

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[15] Notice at ¶ 31.

[16] Comments of APT at 8.

[17] Notice at ¶ 12.

[18] *Id.*

[19] The statute requires that disputes be resolved within 180 days, and authorizes the Commission to grant carriage rights or damages to any party that has suffered discrimination. This mechanism will serve as an effective check on discriminatory behavior. Telecom Act at § 653(a)(2).

Nothing more is required. Indeed, it would be difficult or impossible to devise a detailed rule to cover all possible forms of discrimination, and a detailed rule on channel allocation or other potential sources of discrimination likely would discourage LECs from taking the open video system option. While the cable TV interests conjure myriad examples of discrimination, both real and imagined, they do not offer a rule that would cover them as effectively as the Commission's classically simple formulation.

The Commission also should reject all proposals that would effectively resurrect the onerous Title II regulation of video dialtone. For instance, some commenters propose that open video system operators be required to submit detailed financial information, system descriptions, market demographics, and other information.[20] Such requirements would surely drive LECs from offering the open video system option when there are no such requirements on cable operators. The Commission should reject such proposals.

Of even graver concern to BroadBand Technologies is that the open video system concept could become hostage to cost allocation issues in the same way that video dialtone did. BroadBand Technologies believes that the Commission's current Part 64 rules are sufficient to segregate and distinguish between regulated (Title II) activities and unregulated activities (including open video systems and cable TV systems). We note however, the Commission's intention to address these issues in a separate rulemaking. However the Commission ultimately chooses to address the issue of cost allocation between telephone company operations and open video system or cable TV operations, the Commission should ensure the following:

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[20] *See, e.g.*, Comments of National Association of Regulatory Utility Commissioners (NARUC) at 7.

- That its deliberations on the issue do not delay the deployment of open video systems or the offering of open video service; and
- That whatever approach it takes, the rules it adopts do not undermine the economic incentives for LECs and others to operate integrated telephony and video networks.

The Commission should reject as an obvious delaying tactic the cable TV interests' request that it resolve all possible cost allocation issues allowing the introduction of open video service. The Commission also should reject any suggestions that pricing for open video system service be made somehow contingent on the allocation of costs between telephony and open video service. There is no logical connection between the two issues. Open video systems will compete with cable TV and other multichannel video programming providers, and pricing should be determined by market forces.

The manner in which the Commission approaches the cost allocation issue could have a decisive impact on whether carriers and consumers ultimately benefit from the potential economic efficiency gains from the delivery of voice, video, Internet access, and other services over integrated, switched broadband platforms. Congress recognized these potential benefits in Section 706 of the Telecommunications Act, and directed the Commission to take deregulatory steps to foster the deployment of such networks. Burdensome cost allocation requirements, which may result in arbitrary allocation of joint and common costs, will retard rather than promote Congress' objectives.

B. *Switched Digital Platforms Resolve Channel Capacity Issues and Further Obviate the Need for Detailed Regulation*

As the pioneer in the development and production of broadband switched digital networks, BroadBand Technologies concurs with the Commission's tentative conclusion that the capacity of such systems for the delivery of video programming "can be presumed to be

unlimited."[21] BroadBand Technologies' FLX 2500 system can be used to deliver digital video programming in either of two modes: a "broadcast" or "point-to-multipoint" mode, in which multiple channels of programming are delivered simultaneously to all subscribers, or a "switched" mode, in which a program is delivered to a single subscriber, over a dedicated circuit, at the subscriber's request. In the broadcast configuration, BroadBand Technologies' system is able to deliver over 1500 video channels simultaneously. Demand for channel capacity is unlikely ever to exceed this level of available capacity.[22] Moreover, the system's capacity can be increased further, if necessary, through the use of digital compression technology.[23]

In "switched" mode the FLX system provides, by definition, unlimited capacity; in this configuration, any subscriber can reach any source of video programming, at any time. In switched mode, the bandwidth of the system is not a critical consideration, since switching eliminates the need for sufficient capacity to deliver multiple video channels simultaneously.[24]

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[21] Notice at ¶ 18.

[22] The BroadBand Technologies switched digital platform in use in Dover Township, New Jersey, is presently configured to deliver up to 384 broadcast video channels, exceeding current demand for channel capacity by some 80 channels.

[23] Even parties that are clearly unsympathetic to the open video system concept and otherwise raise concerns about capacity limits and channel allocation on open video systems acknowledge that switched digital networks resolve such concerns. See, e.g., Comments of Cablevision Systems Corp. and the California Cable Television Association at n.37, p. 12 (switched digital video systems "promise virtually to eliminate capacity constraints").

[24] BroadBand Technologies notes that its FLX system can also be configured to deliver some programming in broadcast mode, and some in switched mode. Indeed, many of our customers are expected to choose such a hybrid configuration.

The essentially unlimited capacity of switched broadband networks is a further reason for the Commission *not* to adopt specific channel allocation rules, but rather justifies allowing open video system operators to manage the allocation process (or delegate it as a third party), subject to the general nondiscrimination obligation. As illustrated by the above discussion, the ways in which channels will be allocated and used will vary depending on the specific network technology used, and will even vary depending on how the chosen technology is configured. Congress intended to give open video system operators the flexibility to make such technology choices.[25] Detailed channel allocation rules would undermine their ability to do so, and could artificially constrain their technology choices -- which ultimately could lead LECs to abandon the open video system option.

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[25] *Conference Report* at 172.

III. Conclusion

BroadBand Technologies respectfully urges the Commission to follow the recommendations of parties to this proceeding who want open video systems to develop and succeed. Those who want it to succeed, including programmers and public interest groups, have uniformly recommended that the Commission adopt a flexible, minimally intrusive regulatory framework. BroadBand Technologies endorses this approach as the only means to ensure that this alternative becomes a viable video entry option for LECs.

Respectfully Submitted,

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April 11, 1996

CERTIFICATE OF FILING AND SERVICE

I, Kay Hawkins, hereby certify that an original and nine copies of the foregoing Reply Comments of BroadBand Technologies, Inc., in CS Docket No. 96-46 were deposited for filing with the Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554, this 11th day of April, 1996.

I further certify that a true copy of the Reply Comments of BroadBand Technologies, Inc., in CS Docket No. 96-46 was served by first-class U.S. mail, postage pre-paid, on each of the parties listed below this 11th day of April, 1996 (an asterisk indicates same-day service by courier).

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