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June 5, 2002

Marlene H. Dortch
Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, S.W.
Washington, D.C. 20554

RE: MB Docket No. 02-70: Applications for Consent to the Transfer of Control of Licenses—Comcast Corporation and AT&T Corp., Transferors, To AT&T Comcast Corporation, Transferee

Dear Secretary Dortch:

Pursuant to DA 02-1254, the Consumer Electronics Association (“CEA”) hereby files this Reply to the Opposition to the Petition to Deny filed by AT&T Corp. and Comcast Corporation on May 21, 2002.¹

Attached for inclusion in the record is testimony given on April 23, 2002 by Robert A. Perry of Mitsubishi Digital Electronics America (“Mitsubishi”) before the Antitrust Subcommittee of the Senate Judiciary Committee. Mr. Perry is the CEA Video Board Chair and Mitsubishi is a CEA member company. CEA submits this testimony because it addresses the potential impact of the AT&T-Comcast merger on the distribution of navigation devices and the setting of technical standards for their procurement.

Specifically, Mr. Perry’s testimony states that approval of the AT&T Broadband-Comcast (“AT&T-Comcast”) merger would create potentially insurmountable obstacles to the development of a thriving commercial marketplace for advanced digital television receivers. The merged entity will have the singular power to determine whether the set-top box market will remain closed to viable competition or become an open and competitive market as envisioned by Section 304 of the Telecommunications Act of 1996. Therefore, Congress and/or the Commission should take appropriate action to ensure that monopoly power is not perpetuated.

¹ See *Applications for Consent to the Transfer of Control of Licenses—Comcast Corporation and AT&T Corp., Transferors, To AT&T Comcast Corporation, Transferee*, Order Extending Filing Deadline, MB Docket No. 02-70, DA 02-1254 (rel. May 28, 2002).

Potential solutions include:

1. A pledge by AT&T-Comcast that its devices will comply with the same standards and specifications set for competitors and that it will not discriminate against competitive features;
2. A pledge by AT&T-Comcast to seriously investigate manufacturers' complaints regarding the current CableLabs specification and certification process and to work expeditiously to enable self-certification; and
3. A disavowal by AT&T-Comcast of selectable output controls currently contained in the PHILA license that would enable cable operators to disable high-definition outputs, home network connections, and recordable interfaces, and a related pledge to work with the rest of the industry to develop a reasonable license.

CEA shares Mr. Perry's concerns and supports his testimony and the recommended actions for a merged AT&T and Comcast. CEA urges the Commission to protect the goals of Section 304 and the possibility of a thriving competitive market for navigation devices when considering the proposed merger.

Respectfully submitted,

/s/ Michael Petricone

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Attachments

Before The
Antitrust Subcommittee
Senate Judiciary Committee

"Dominance on the Ground: Cable Competition
and the ATT-Comcast Merger"
April 23, 2002

Statement of Robert A. Perry
Vice President, Marketing
Mitsubishi Digital Electronics America

Chairman Kohl, Senator DeWine, and Members of the Subcommittee:

My name is Robert Perry. I am Vice President, Marketing, of Mitsubishi Digital Electronics America. My professional goal is to sell large volumes of advanced digital television receivers, as quickly, inexpensively, and effectively as is possible. While I have enjoyed some success in doing this, I face a massive and frustrating competitive obstacle that also afflicts seventy percent of my customers. Despite the efforts and instructions of the Congress and the FCC, my competitors and I are still unable to offer a consumer product, of any sort, that connects directly to any digital cable system. The power to be conveyed by the merger of Comcast and AT&T Broadband can be used to make this obstacle insurmountable, or finally to clear it away. If the merger goes through, this power will all be in the hands of my colleagues at this witness table.

One out of every five HDTVs in consumers' homes today is a Mitsubishi. But even with this leadership, we are unable to make headway in offering products that connect to digital cable systems. And I see competition from others repressed as well. Although I appear today on behalf of my company, I am also the chairman of the Video Board of Directors of the Consumer Electronics Association, a Board member of the Home Recording Rights Coalition, and a Board member of HAVI, a corporation devoted to digital home networking software systems. In each capacity I have learned how and why consumers are still denied the benefits of competition mandated by the Congress six years ago.

A little history:

- In 1991, Senator Leahy complained that cable systems do not adequately support the operation of TV receivers. His attention to this issue led to legislation in 1992, telling the FCC to "promote" the availability of competitive remote controls and set-top boxes.
- In 1996, Section 304 of the Telecommunications Act more explicitly instructed the FCC to *assure* the competitive commercial availability of any

product necessary to receive a service offered by a cable operator -- not just set-top boxes, but also DTV receivers and other new products that consumers want and expect, such as digital video recorders.

- In 1998, FCC regulations gave the cable industry until July 1, 2000, to support the operation of competitive devices bought by consumers from independent manufacturers and retailers. CableLabs, the research consortium of the cable industry, offered to draft the necessary technical specifications, and the FCC accepted this offer.
- Today, in the second quarter of 2002, there is no competitive entry on the horizon. The July 1, 2000 standards were late, inadequate, incomplete, and not sufficiently tested. Recently a competitor of ours did ask CableLabs to certify a prototype DTV receiver built to this specification, as subsequently modified and improved. But CableLabs refused to consider certification of such a product, because it does not incorporate newer specifications that are still under development and revision.
- The newer specification -- the "Open Cable Access Platform," or OCAP, is software-based and may be an improvement if and when it is complete and reliable. But it is untested, far from ready, and even farther from being relied upon. Why? *Because at present we have no assurance that products built to this specification would actually work when connected to cable systems.* The cable operators themselves *have been unwilling to say that they will rely on this specification in the devices that they, themselves, lease to customers.* Moreover, as now written, this specification enables cable operators and program suppliers to remotely and unilaterally suppress competitive features of multi-purpose products. Product features such as recording, games, program guides, telephony, and home networking, might not work or could be disabled at will if they are provided in a consumer electronics device connected to digital cable.
- In 2000, a new and persistent legal barrier emerged -- a license offered by the consortium of major cable MSOs, take it or leave it. Due to copy protection considerations advanced by the motion picture industry, any competitive entrant must sign this license, offered by CableLabs. Elements of this license are not only anticompetitive, they are also profoundly anti-consumer. It includes provisions for:
 - turning off home network interfaces by remote control
 - reducing the resolution of high definition content by three-fourths on designated programs
 - allowing consumer home recording to be turned off via technical means on an unrestricted basis.
 - requiring "certification" of these products by CableLabs prior to their sale, at an unlimited per-product "certification" fee.

The only companies that have signed this license are Motorola, Scientific Atlanta, and Pace -- all entrenched suppliers of set-top boxes to cable operators themselves, who are not bound by its terms.

So, Mr. Chairman, as Comcast and AT&T Broadband appear today to defend their proposed aggregation of power in all markets, you should be aware that their industry thus far has used its concentrated power to frustrate the competitive entry legislation launched a decade ago by the chairman of your own parent committee:

- Cable operators distribute about 135,000 digital set-top boxes per week; they own about 25 million proprietary set-top boxes, none of which conforms to or relies on competitive standards, or the proposed CableLabs standards for attachment to cable systems.
- Not a single competitive product has been sold to any consumer, nor has any yet been manufactured or even certified by CableLabs for manufacture. The fox does not simply rule the henhouse; it is owner and sole tenant.

A merged AT&T and Comcast will be by far the biggest, most powerful, and most influential cable operator in the markets for both cable services and cable devices. Today, both companies procure their set-top boxes from the same supplier, which already dominates its market. The merged AT&T and Comcast will be CableLabs' largest owner, and Motorola's biggest customer. Its combined intentions and single checkbook will determine whether this product market remains closed to viable competition, or finally becomes the open and competitive market that Chairman Leahy envisioned in 1992, and that the Congress demanded in 1996.

You could, of course, simply approve this aggregation, and rely on the FCC to insist on compliance through closer regulation. There are proposals pending at the FCC for it to demand compliance with existing regulations, and I support them. But in the face of the concentrated cable industry power that already exists, the FCC has been pushing a string. In my view this Committee can and should insist on a commitment, here and now, that the enormous power resulting from this merger be used to deconstruct monopoly, rather than to consolidate and perpetuate it.

Here are the minimum commitments I believe this Subcommittee should demand of my colleagues at this witness table:

As to standards and specifications: I don't see how I can ask my company to invest millions of dollars in a new product line, or my customers to invest over three thousand dollars in an HDTV receiver, if the cable operators who wrote the software and specifications governing the product's operation are unwilling to rely on them in the products that they distribute themselves. A simple and authoritative pledge, from the individual who will run the combined AT&T-Comcast, that by a date certain (preferably 2003) their devices will live by

the same rules and specifications they set for competitors, and that these will not discriminate against competitive features, would go an enormous way to build confidence that those who buy products from competitive entrants will not be disappointed or abandoned in their investment.

As to product certification: I don't understand how the July 1, 2000 CableLabs specification could be adequate to satisfy FCC regulations, but not adequate for CableLabs certification of an actual product. The CableLabs certification practice is in many cases discriminatory, underfunded, overpriced, nontransparent, inefficient, and unpredictable -- at least as it is encountered by those who would compete with CableLabs' MSO owners. A pledge from the merged Comcast-AT&T to look very seriously into these complaints, and to work expeditiously toward self-certification, as we enjoy in other standards areas, would go a long way.

As to the "PHILA" license that competitive entrants must sign: The ability to license competitors is a public trust that the FCC has granted to CableLabs, albeit perhaps in error, and that CableLabs continues to abuse. How can CableLabs be shielded from antitrust scrutiny, but not public accountability, in exercising it? A reasonable license would be one that did not threaten the 2.5 million displays now owned by consumers with degraded resolution, or with interfaces being shut off and screens going dark, or with the unconstrained ability to stop home recording by technical means. Even the motion picture industry has disavowed so-called "selectable output control," by which high-definition outputs, home network connections and recordable interfaces can be shut off in this manner. But in April 8 letters to Senators Leahy and Hatch, the President of CableLabs refused to disavow selectable output control. I call upon the prospective head of the merged AT&T-Comcast, here and now, to disavow selectable output control, and to pledge to sit down and work out, expeditiously, a license that manufacturers could sign without having to apologize to their past, present, and future customers.

* * *

Mr. Chairman, I know that this subcommittee has been looking into the competitive issues that I've discussed today for quite some time, and that it has inquired of Chairman Powell of the FCC about them on more than one occasion. I believe you have performed a great public service in doing so. We are fortunate that this merger transaction, which would further aggregate monopoly power in the distribution of devices and in the setting of technical standards for their procurement, is within the jurisdiction of this Subcommittee, as are the regulators who must rule on it. On behalf of my company, I thank you very much for having invited me today.

Senate Judiciary Committee
Antitrust Subcommittee

Robert Perry's Answers
Re April 23rd Hearing

Questions from Senator Kohl

1) *Competitive set top box (STB) Market*

As you are aware, the 1996 Telecommunications Act envisioned -- indeed, mandated -- a competitive navigational device market for cable consumers. This would include a competitive market for STBs. We are not of the opinion that such a market exists today -- more than six years after passage of the Act.

a) In your opinion, why hasn't a competitive STB market developed?

The primary reason for lack of a competitive market for STBs -- or for any other competitive digital cable product -- is the lack of a uniform standards and licensing framework that applies to both competitive entrants and the incumbent MSO suppliers of STBs. The failure of the FCC to insist on such a common competitive framework for the rollout of digital cable devices was an enormous missed opportunity. Urgent action is required before legacy considerations, as to the proprietary, MSO-specific devices that have already been distributed, preclude the establishment of a common competitive framework, now or in the future.

The approach, thus far, to deregulating cable customer premises equipment fails poorly by comparison to the prior deregulation of telephone customer premises equipment. In that case, after a date certain, the electrical specifications for connection to the network were applied equally to the incumbent suppliers and the competitive entrants. The FCC also insisted that mechanical barriers and requirements to use of competitive products, erected by the incumbents, be removed. System operators were also prohibited from engaging in economic discrimination in favor of their own products.

No such attention to a common competitive framework was given in the case of digital cable.¹ First, the cable industry offered to

¹ Initially, FCC obligations in CS Docket 97-80 applied equally to analog and digital cable systems. Consumer electronics and information technology manufacturers and retailers took the initiative to ask the FCC, on

supply "Point of Deployment " ("POD") modules by July 1, 2000, as necessary to enable *attachment* of competitive devices, but did not pretend to devise a technical standard by that date that would enable competitive *operation* of entrant devices.² The industry never did accept any obligation to support operation of devices competitive in their functionality to those of proprietary leased devices. The FCC has required only that, by January 1, 2005, MSO-provided devices must also rely on "PODs." While a tardy step toward a common competitive framework, this requirement does not address any of the other technical standards or licensing requirements which can relegate entrant products to non-competitive status.

It should not be surprising that an incumbent monopolist, given the power to write specifications *only* for competitive entrants, and to erect licensing barriers and requirements that can be enforced *only* on competitive entrants, has not enabled competition. Even for those MSOs disposed to support competitive products, this approach to deregulation has made their support clearly a secondary priority, compared to the urgent rollout of proprietary product. Those MSOs not inclined to help support competition for their own products, and the entrenched suppliers of all MSOs, have taken advantage of this regime to stifle the emergence of competition. Meanwhile, the existence of 25 million proprietary STBs is now being cited as a "legacy" issue constraining MSOs from relying on OpenCable standards in their own products.³

Cable MSOs have also subsidized the distribution of leased digital STBs through cost averaging with much older and less expensive analog STBs, but thus far have refused to commit to extend the same treatment to customers acquiring functionally identical STBs outside MSO channels. This alone would ensure that any competitive navigation devices would be more highly integrated (and expensive) products, as to which the economic discrimination against competitive products would be less consequential. The FCC has not acted on proposals to address this documented and admitted discrimination.

reconsideration, to limit cable industry obligations substantially to digital devices, to allow the industry to focus on competitive digital standards so as to avoid legacy problems in the transition.

² In actuality, the "J2K" standard was not ready in time to support manufacturer of devices by July 1, 2000, competitive or not.

³ Comments of Chris Bowick, CTO, Cox, NCTA panel re retail, May 7, 2002. Mitsubishi and others long ago predicted to the FCC that such "legacy" issues would be raised if it failed to act promptly to create standards for digital cable.

b) How many years away are we from the day where the consumer can walk into a retail outlet and purchase a STB or digital cable-ready television set -- from a wide array of manufacturers -- that will work on every major cable system across the country?

Unfortunately, the day in which real, telephone-like competition will exist in STBs, or in which digital cable-ready TVs will benefit from the competition that has driven quality up and prices down in open market televisions, still seems years away. If the FCC and cable MSOs were suddenly, today, to begin doing all in their power to enable competition, the posited day would still be at least two years away. Without an all-out commitment, we are looking at 4-6 years, if ever.

The earliest viable path to marketing an OpenCable-reliant DTV receiver (POD enabled, so as to "work" on every major cable system) would be through completion, enhancement and standardization of the non-OCAP, "J2K" OpenCable specification, as proposed by consumer electronics manufacturers, and certification (self-certification, not the egregious CableLabs mandatory certification envisioned in the currently proposed CableLabs license) of conforming products. While this standards activity would not produce a commercially viable STB (as it would still lack interactive capabilities of the crudest proprietary leased STBs, such as video on demand), it would enable the marketing of integrated TV receivers that (1) can access "Guide" data, to allow the consumer to view a present and future program menu, and (2) enable 'Impulse Pay Per View' ("IPPV") through the set's remote control.

Thus far, however, CableLabs has not been willing to certify any product that would incorporate such "Guide" and "IPPV" enhancements to the "J2K" specification.⁴ If CableLabs and its owner MSOs were to change their minds today, and if all "PHILA" obstacles were immediately solved, the necessary testing and certification steps (including those remaining as to POD functionality and reliability) would be such as to enable introduction of these products in the 2004 model year at the earliest.

⁴ Apparently CableLabs recognizes an obligation to certify *only* such non-OCAP products as conform to the original J2K specification, and *not* any made commercially viable by improvement as to Guide data and IPPV. (Having relied on the J2K specification to claim nominal compliance with FCC regulations, CableLabs now wishes to discourage attachment of such non-OCAP competitive products.) I am not aware of any manufacturer that would consider such a "literal J2K" product to be viable.

As a manufacturer, I would view such a receiver as an "entry level" product, because it still would not offer the suite of interactive services (e.g., "video on demand," or "VOD") available today in proprietary STBs. Still, many consumers would find this product adequate to their needs, and would be eager and grateful to buy a product that (1) offered both broadcast and cable-originated HDTV with no interface or quality uncertainties, (2) operated from a single cable with a single remote control, and (3) did not require a set-top box. For those consumers who wish more interactivity, to take fuller advantage of all cable service offerings, I would also want to offer a "step-up" model that, in addition, ran OCAP software applications.

Proceeding to OCAP as a "step-up" from the less interactive platform is an important consideration for TV manufacturers. As I discuss below, the OCAP specifications do not yet, and may never, comprise a *standard*, hence future reliable operation cannot be assured. About half the public today will accept operation of PC applications that freeze or otherwise behave unpredictably; such operation by a TV receiver will lead to its quick return to the retailer (and then to the manufacturer). Accordingly, OpenCable specifications in general, and OCAP specifications in particular, need to attain a high degree of *stability, reliability and confidence* before manufacturers can be expected to invest tens of millions of dollars in producing, marketing, and distributing OCAP reliant products.

This is where MSO-device reliance on OpenCable specifications emerges as a top priority. If MSO-distributed devices must, by (an early) date certain, rely on this set of specifications, they will quickly become stable and reliable. If they do not, it is hard to say when we would reach the point at which entrant manufacturers would field products that represent, initially, a tiny segment of the device market, and as to which MSOs have no enforceable duty to assure reliability in the hands of consumer.

If, today, MSOs reliably pledged, or the FCC required, that new MSO-provided devices must rely exclusively on OCAP and obey all PHILA requirements, I would venture that both OCAP-reliant DTV receivers and OCAP-reliant STB products⁵ would be on the market within one year of the emergence of the non-OCAP DTV receivers discussed above.

⁵ Due to the economic discrimination discussed above, it is likely that these products would involve integration with or into other devices rather than stand as head-to-head competitors with leased STBs.

2) The Open Cable Applications Platform (OCAP) standard?

a) Based upon the most recent OCAP standard, what consumer features (i.e., channel guide, video-on-demand, etc.) would a STB built to this standard be able to offer? Which consumer features would you add before you would build a STB to this standard?

Unfortunately, as I discuss above, OCAP has not been offered as a "standard." It is, rather, a proposed series of specifications, as to which input but no assurance is offered to competitive product developers. Strictly as a matter of specification, OCAP in theory offers a full suite of consumer features to potential manufacturers of competitive products. However, at present this observation must be qualified in several very crucial respects:

(a) There is no assurance that competitive products will have equal access to the "channel guide" *data* necessary to product function under the specification;

(b) The "monitor" application is designed to suppress other applications originating in the competitive product, potentially limiting or encumbering the design of products that offer additional competitive features;

(c) Until MSO-distributed products on every major MSO system also rely on OCAP, headend support for OCAP-dependent applications may not be available on particular MSO systems;

(d) Limitations of PHILA, discussed below, frustrate storage and interface features, and subject manufacturers to arbitrary and unpredictable design constraints.

Assuming that MSOs were to pledge, or be obliged to, refrain from discriminating against entrant products, the marketplace would determine the best combination of features and functions in devices that also perform as STBs. From an engineering and cost efficiency viewpoint, it would seem attractive to incorporate features such as PVR and removable media home recording, telephony, games, home theater, DTV broadcast tuning, and DOCSIS modem functionality.⁶

⁶ Visitors to NCTA noted the explosion of integrated features and functions in "DOCSIS" modem products slated for retail introduction in late summer, including integrated "firewalls," wireless distribution, telephony, and wired home networking. The level of competition in the DOCSIS environment, in which MSO-distributed product relies on the same standards, stands in stark contrast to the proprietary and restrictive STB environment.

b) What value, if any, would a STB built to the current OCAP standard have if the cable company offered its own proprietary STB that offered more consumer features above and beyond the capability of the OCAP standard? Do you think cable companies should be required to build STBs to the OCAP standard?

As I indicate above, until the economic discrimination against (even identical) competitive products is relaxed, it would be very difficult for entrants to sell product that are the full equivalent of MSO-distributed products. Therefore, an inferior "STB" would stand little chance. I do not believe, however, that if MSO-distributed products relied on OCAP, they would ever lose functionality compared with what might be achieved in proprietary devices. This is because, as some MSOs themselves have noted, an OCAP-reliant world would provide a larger and more efficient market for the design of applications than do the separate, proprietary, MSO device markets of today.

Under present circumstances, however, we may never arrive at the "tipping point" at which OCAP becomes the prevalent design platform for new applications. This is because the cable industry has already received shipment of about *25 million* digital STBs, and has been reported as distributing them at the rate of *135,000 per week*. Therefore, unless an early date is fixed for exclusive OCAP reliance in new STBs, "legacy" issues may outweigh efficiency issues. Under this circumstance -- *and particularly if some MSOs do not support OCAP at the headend* -- entrant products reliant on OCAP would indeed be inferior to proprietary devices. This would limit their availability to those products as to which the consumer is more interested in integration than in features. (MSOs could compete with leased versions of such products, as well.) This would be a constrained and inefficient market.

It is for these reasons that I believe that new MSO-distributed products must rely on the same technical standards (OCAP or whatever), and be subject to the same license constraints, as apply to competitive products.

c) What efforts are underway to improve and upgrade the OCAP in order to allow innovation and more features to be offered in the STB?

OCAP has only recently been published for comment -- ver 1.0 in late December and ver 2.0 a month or so ago. Consumer electronics companies have, as explained above, been frustrated in

their ongoing attempts to secure obvious improvements and testing as to the "J2K" specification, which otherwise would support relatively early introduction of digital cable-ready DTV receivers. As to OCAP, as I indicate above, the issue is not so much capability as cost, stability, and reliability. In this respect, early review and acceptance by a due process standards body (e.g., the Society of Cable and Television Engineers -- "SCTE") is crucial.

3) The Pod Hose Interface Licensing Agreement (PHILA)

a) Why was this document kept a secret for so long? We understand it could only be viewed only after parties agreed to a non-disclosure agreement. Is the version of PHILA now posted on the Internet the most recent version?

Mitsubishi viewed the offering of PHILA only under NDA as entirely inappropriate and unacceptable for a document provided in fulfillment of statutory responsibilities and FCC regulations. Therefore, although Mitsubishi executed the initial NDA in order to gain access to the draft PHILA (which was eventually made public), policy makers at Mitsubishi refused to view newer non-public versions -- because to do so would immediately stifle the ability of Mitsubishi to speak publicly regarding the egregious terms of the license. Despite the lifting of the NDA, CableLabs has still not pledged to post on the Internet, any "progress drafts," based on negotiations to date, as has been done in purely private sector contexts.⁷ Accordingly, Mitsubishi has no idea whether the posted version represents the latest offers to potential licensees.

In my personal view, CableLabs' approach to the negotiation of PHILA has epitomized that of a monopolist believing it is acting out of pure grace and discretion as to its potential competitors. The NDA approach is only symptomatic. Nothing other than insistence, by the sovereign authority that granted CableLabs this power over potential entrants, will result in a more productive approach to negotiation.

b) To what extent are home recording rights restricted under the terms of the current PHILA draft? Could the ability to record programming delivered through a device bound by PHILA be "turned off" beyond the control of the consumer? If so, why?

Home recording rights are potentially affected in extreme and unacceptable ways by PHILA. Consumer rights as to both recording

⁷ E.g., the "5C" ("DTCP") license negotiations and instruments.

and viewing may be "turned off" by remote control. In support of this answer I am submitting for the record written testimony of the Home Recording Rights Coalition ("HRRC"), of which I am a Board member, provided to the Judiciary Committee on March 14, 2002, and written testimony of the HRRC as provided to a subcommittee of the House Energy & Commerce Committee on April 25, 2002, which includes an Appendix answering a CableLabs letter written in reply to the March 14 testimony.

Questions From Senator DeWine

1. At the hearing, you indicated that it is important for cable operators to commit to rely on the same technical specifications that competitive boxes must use. Why isn't it sufficient for the cable companies to commit to fully support the competitive set-top boxes?

Stability, reliability, and fairness of technical standards are the key to finally achieving competitive entry. History teaches that so long as support for a technical specification is not an absolute priority, it will not achieve these attributes.

In the case of OCAP, without the prospect of reliance in their own products, headend support by MSOs would require a major commitment of resources, time, and talent, to support what will initially be a handful of competitive entrant products, all offered by direct competitors. In the case of the POD module, there would similarly be an initially very small number to be distributed. There would be little incentive for MSOs to give priority to headend support for OCAP, or for POD manufacturers to commit the production volume and resources to bring the cost of PODs down to a minimal figure (which chip integration and mass production would do very quickly).

History shows that expecting MSOs and manufacturers to act against immediate resource allocation interests, or expecting the FCC to force them to do so through oversight, is futile. The "paper" nature of the "J2K" specification, its real-world abandonment by CableLabs,⁸ and the slow and changeable development of OCAP to date are evidence of this. Given the inherent imprecision of language where commitments to technology are involved, written pledges by MSOs are neither sufficiently precise nor imminently enforceable to prevent a full-blown "legacy" problem -- a world of proprietary STBs that no longer will interoperate with competitive entrant products.

⁸ See answer to Senator Kohl's question (1)(b).

MSO reliance on the OpenCable specifications and PHILA licensing terms that are offered to entrants will assure, as nothing else could, that these will be both fair and supported. Such was the positive history of the deregulation of telephone customer premises equipment, and such has been the hallmark of the competitive market for standard DOCSIS modems.

2. It was clear from the hearing that there is disagreement about how close we are to realizing the mandate set forth in section 304 of the 1996 Telecom Act -- that the FCC open up the set-top box market to competition. What further steps need to be taken before we have competitive entry in this area? And how long will those steps take?

The mandate in section 304 envisioned competition on the telephone deregulation model -- not just STBs, but a range of new competitive products, many that could not be anticipated when the legislation was written. This is why the proper incentives for investment are so important.

Unfortunately, as I indicated in answers to Senator Kohl, we seem *at least* two years away from entry via integrated DTV receivers whose cable capabilities are limited in comparison to proprietary STBs, and an additional year away from fully competitive receiver and STB (OCAP-reliant) products. (As I indicated, technically, an OCAP-reliant STB might be developed earlier under ideal conditions, but the economic discrimination against entrant products requires integration of STB functions into other products in order to compete.)

In its Report and Order on Reconsideration in CS Docket 97-80, the FCC said that it expected cable industry compliance would lead to a fully competitive market in the year 2000, but that if this did not occur, a review would then be launched as to whether the date for MSO reliance on PODs, in their own products, should be moved up. In September, 2000, the FCC announced a "Year 2000 Review" in this Docket pursuant to this commitment. On April 16, 2001, proposed amendments to regulations were filed in this Docket by members of the Consumer Electronics Retailers Coalition ("CERC") to address "reliance" issue posed in question (1), as well as the economic discrimination against entrant products. However, the present FCC has not taken any action in the context of the pending Year 2000 Review.

a. Will this merger give AT&T Comcast the market power to dictate the standards for set-top boxes? Given Microsoft's ownership interest in the company, what concerns, if any, do you have about its role in setting standards on the set-top box platform?

As I noted in my testimony, the merged company will be CableLabs' largest owner and Motorola's largest STB customer. This power can be used either to delay or to hasten reliance by all MSOs on OpenCable standards, headend support for OCAP, and an end to economic discrimination against entrant products. In this respect it was disappointing that at the hearing Mr. Roberts did not make any commitment to promote MSO reliance on OpenCable specifications, or to standardize these specifications or move to a self-certification regime. Credible commitments in these respects would be enormously persuasive in the industry; the absence of such commitments is similarly, and unfortunately, influential.

Microsoft is known to be generally antagonistic to OCAP, particularly with respect to its derivation from "MHP" -- the European STB standard that uses Java programming language to enable operation. Microsoft has been opposed to the use of Java, which is licensed by Sun Microsystems, in any standards. To the extent this may cast doubt on Comcast's commitment to this and other OpenCable specifications, an affirmative commitment by Comcast to rely exclusively on OpenCable specifications in new products, by a date certain, would help resolve any such doubts, and improve confidence by entrants that their own