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APR - 8 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

April 8, 2002

VIA COURIER

William F. Caton, Acting Secretary
Federal Communications Commission
236 Massachusetts Avenue, NE – Suite 110
Washington, D.C. 20002

Re: Commercial Availability of Navigation Device Docket CS Docket No. 97-80; Compatibility Between Cable Systems and Consumer Electronics Equipment, PP Docket No. 00-67

Dear Mr. Caton:

The attached letters provide information concerning the current Pod-Host Interface License Agreement.

Respectfully submitted,

Paul Glist /af

Paul Glist

Enclosure

cc: See Attached Service List

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CableLabs®

Cable Television Laboratories, Inc.

April 8, 2002

The Honorable Patrick J. Leahy
Chairman
Committee on the Judiciary
United States Senate
433 Russell Senate Office Building
Washington, DC 20510

Dear Chairman Leahy:

I am writing in response to a March 14, 2002 written statement filed with your Committee by Gary Shapiro on behalf of the Home Recording Rights Coalition. Mr. Shapiro did not testify before the Committee nor appear for questioning, but since his written statement contains broad charges concerning the work that CableLabs has been doing to promote consumers' access to new programming, we feel compelled to correct the record.

Mr. Shapiro's statement is largely directed to Hollywood studios, but he paints an alarming portrait of one part of CableLabs' work. He contends that the POD-Host Interface License Agreement (PHILA) governing the interface between cable television conditional access modules and "host" integrated digital television receivers (DTV) and set-top boxes (STB) deny consumers' rights of "Fair Use" home copying; that it is designed to turn off consumers' TV sets on whim; that it would disable the TV sets of purchasers of first generation digital television sets; and that all of this is being done in "secret" in negotiations over the PHILA between CableLabs and DTV and STB manufacturers. This portrait is highly inflammatory and inaccurate.

Executive Summary

CableLabs is a scientific organization that serves as the research and development consortium of the North American cable television industry, rather than an advocacy group. The CableLabs' OpenCable™ project, which developed the "POD-Host" interface specification, is part of an industry-wide effort to encourage competing manufacturers to build competitive but interoperable next-generation digital consumer devices, and to promote consumer choice, retail availability and competition.

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PHILA provides tools, not rules. The PHILA provides a secure technology for the interface between separate security Point of Deployment modules (PODs) supplied by the cable operator and retail "hosts" they plug into. It prevents piracy of the digital signal as it passes to the host device. These are the tools under which cable operators can bring new "high value" content to consumers, such as newly-released motion pictures in early release windows and video-on-demand. At present, the direct broadcast satellite industry encrypts all digital programming, including "free" over-the-air broadcast signals. According to press reports, Echostar and DirecTV have agreed to reduce the resolution, or "down-res," high-definition television programming provided over so-called component analog outputs in order to reduce the risk to program owners that high-value, high quality programming will be pirated, copied or retransmitted onto the Internet or other media. In order for cable customers to obtain access to the same digital content, it is essential that cable equipment contain similar security tools. High value content will not be available to cable customers so long as program owners regard cable as an insecure medium.

The PHILA provisions and OpenCable specifications do not require particular content to be restricted from copying, nor do they require any particular content to be carried in the clear. The OpenCable specifications provide a tool box that will respond to copy control information that may be inserted into programming content by the cable operator pursuant to the terms of its affiliation agreement with a program owner. It is not CableLabs' role to institute a single business arrangement to replace thousands of detailed bi-lateral business arrangements. Congress and the courts will always have the responsibility to define content owners rights with respect to making copies of their works (such as home copying or time shifting).

PHILA is respectful of time shifting for home use. As far as PHILA is concerned, it fully accommodates internal personal video recorders (PVRs) that record and store home copies. PHILA also follows a widely-accepted requirement (that consumer electronics manufacturers have accepted in similar licenses) that devices that make digital copies must be "robust" to prevent hacking that would defeat copy protection and to resist removal of hardware that stores the digital copy. All security measures over an interface could be defeated if the user could simply remove the hard drive or print a perfect copy onto a removable CD that can be uploaded to the Internet or played anywhere. Such requirements have not slowed the popularity of TIVO.

"Selectable output control" is an ordinary incident of different security systems for different outputs. Complaints about "selectable output control" may be based on a misunderstanding. With regard to digital outputs, it is important to note that devices often use multiple outputs employing different security. It is possible that the security of a digital output might be compromised. In that event, it may be necessary to route programming to an alternate digital output known to be secure. This kind of selectivity—which is not a part of PHILA, but is incorporated within the OpenCable specifications—is merely an extension of the security arrangements that permit subscriber access to protected digital content in alternate ways. The Cable Industry strongly supports the use of both 1394 and DVI connection for this and other technical reasons. The 1394 output

uses an encryption called "5C," while DVI (digital video interface) uses an encryption called "HDCP." These systems (described in detail later) are not identical. Under the 5C license—authored by a number of Mr. Shapiro's members—if a 1394 interface has been compromised, the security "fail safe" may require that it be disabled pursuant to a well-defined due process that provides for both notification and cure periods. Selective output control would permit the consumer to continue to watch broadcast and cable signals over a DVI output with the HDCP security intact.

PHILA does include a provision requiring the capability for "down-resing" of high-definition programming provided over component analog outputs, in order to maintain the ability of a device to respect such requirements that may be imposed by content providers. That provision was included because television manufacturers have failed to include connectors on digital sets that respect intellectual property rights. These TVs use "component analog" outputs that provide the fully decoded high-definition video information over three separate wires in an analog form that can be processed directly by the display—but with no widely used copy protection scheme. "Down-resing" can provide some level of protection by allowing high-definition programming to flow to these TVs without inviting widespread compromise of the high resolution images. CableLabs included it in PHILA, in agreement with content owners, in order to provide a usable analog output in lieu of the possibility of no analog output at all. This output was also included in order to match requirements in DBS receivers. If all content providers and distribution media, including DBS, agree to remove "down-resing" requirements and to remain bound by that decision, CableLabs would remove the requirement from PHILA.

Cable is not stranding or disabling the devices of purchasers of first generation DTVs. Cable operators have no business reason to disable customers' reception of programs and thereby reduce their subscriber count and revenue. Cable operators' incentives are to sell programming, not to disable it. Cable was the first industry to support the 1394/5C interface to permit high quality transfer of programming. In the summer of 2001, cable took the next step, and endorsed the DVI/HDCP connector to permit consumers to enjoy display of uncompressed digital video. The cable industry is clearly committed to providing the interfaces and appropriate standard copy protection mechanisms needed to provide digital and high definition services to the wide variety of TV sets in the market. By contrast, CE manufacturers opposed any kind of copy protection. They obtained an FCC ruling that allowed them to omit 1394 interfaces from so-called "cable ready" DTV sets. They continue to bring TV receivers without DVI interfaces (or HDCP protection) to market. This reflects a deliberate choice to deploy TV receivers without the tools needed to respect intellectual property, thereby creating the very legacy problem for consumers for which Mr. Shapiro seeks to blame the cable industry. This may save some small cost, but it will not advance the availability of digital programming through accepted interfaces.

The PHILA process was never "held secret." The current version is posted publicly. PHILA was created from multi-party discussions involving program suppliers, cable operators, and consumer equipment manufacturers, and was the subject of comment in various forums. Using the same arrangement under which manufacturers reach (confidential) agreements with DBS for STBs, CableLabs created an environment in

which individual manufacturer concerns could be expressed and addressed sufficiently to reach agreement in a confidential, commercial, business-oriented manner. In order to assure that the terms remain non-discriminatory, each manufacturer is the beneficiary of the "most favored nations" clause that has been included in PHILA since its filing with the FCC in 2000. To date, CableLabs has entered into PHILA agreements with the leading STB manufacturers in the U.S. and Europe. The terms of the current PHILA have been shared with the FCC under the ordinary procedures for handling commercial confidential information at the agency. There is nothing secret or suspicious about these ordinary procedures. To dispel any doubt, we have posted the current version of PHILA to our web site (http://www.opencable.com/documents.html), and we will periodically update it as modifications are adopted in bilateral negotiations.

CableLabs specifications were reached through open processes in which manufacturers fully participated. It is modeled on CableLabs' successful "DOCSIS" program, which transformed the cable modem product from a proprietary device available only for lease from the cable operator at a relatively high cost, to a retail device, with 221 different certified cable modems from 60 different manufacturers, available directly to consumers in consumer electronics stores. The current OpenCable process promises similar results. At the January 2001 Consumer Electronics Show, Panasonic demonstrated that the PHILA-licensed POD worked on digital TVs with integrated set-top box functionality. Under the circumstances, we believe that no government intervention is appropriate.

Detailed Discussion

Background on CableLabs Effort to Promote Consumer Choice

CableLabs is the research and development consortium of the North American cable television industry. Unlike the HRRC or Consumer Electronics Association, which Mr. Shapiro also heads, CableLabs is a scientific organization, not an advocacy group.

Let me first provide some background on CableLabs' OpenCable project, which includes the "POD-Host" interface specification. Most of the cable television industry has historically been dependent upon several manufacturers of proprietary headend equipment and associated set-top boxes. The Telecommunications Act of 1996 directed the FCC to create rules that would allow consumers to obtain STBs and other equipment from commercial sources, such as retailers, manufacturers and other sources besides cable operators, subject to "theft of service" considerations. In order to promote the "commercial availability" of navigation devices envisioned by Section 629 of the Communications Act—and without defeating the security components of set-top boxes—FCC rules require that cable operators make available separable security components called point-of-deployment (POD) security modules, that can plug into compatible "host" devices. The POD modules enable manufacturers and retailers to engage in retail sale of interoperable navigation devices, such as set-top boxes and "integrated" digital television sets that have the STB functionality included. In order to expedite this process, the FCC

essentially merged this project into CableLabs' ongoing "OpenCable" project. As a result, CableLabs completed specifications for the POD module and the interface for the "host" devices, and verified that the removable POD modules were able to display analog video and audio, digital video and audio, and were able to decrypt digital video and audio in compliant manufacturers' host devices.

It is important to note that the OpenCable process through which these specifications were developed, reviewed, and refined has been an open and inclusive process, with participation by a broad spectrum of interests, including more than 500 private sector companies and organizations. The list encompasses a wide range of organizations, including cable operators, traditional cable equipment manufacturers, consumer electronics manufacturers, retailers, content providers, computer manufacturers, software developers, satellite service providers, telecommunications equipment manufacturers and service providers, research institutes, and trade associations.

The OpenCable project publishes hardware and software specifications to encourage competing manufacturers to build competitive but interoperable next-generation digital consumer devices, and to promote retail competition. The hardware specification allows a digital television receiver that is sold at retail to be operated by direct connection to any cable system. The software specification, called the OpenCable Applications Platform (OCAP), solves the problem of proprietary operating system software by creating a common platform upon which interactive services may be deployed. OCAP is the "middleware" software layer that enables the developers of interactive television services and applications to design products that will run successfully on any cable television system in North America, regardless of the particular brand of STB or television receiver hardware or operating system software connected to the cable system. CableLabs is now supporting interoperability tests wherein CableLabs' state-of-the-art digital cable headends and facilities are made available to assist this pro-competitive effort. The OpenCable project will reduce the time to market for products, services, and applications; increase the diversity of products and services available to consumers; decrease the cost of such products and services to consumers through competition in the STB and integrated TV market; and improve the overall performance and reliability of such products and services.

To date, a wide variety of companies have participated in interoperability trials with CableLabs. The companies include headend equipment providers: DiviCom, Motorola, and Scientific-Atlanta; host device providers: LG Electronics, Microsoft/SCM Microsystems, Motorola, Panasonic, Philips, Samsung, Scientific-Atlanta, Sony Electronics, Thomson Consumer Electronics, and Zenith; POD Module providers: Mindport, Motorola, Nagra, NDS, Scientific-Atlanta and SCM Microsystems; and OCAP middleware participants: Sun Microsystems, Liberate, Microsoft, Philips, OpenTV, PowerTV, and Canal+.

In each of these endeavors, CableLabs has been working a broad three-part agenda to promote consumer choice and to reduce the cost of products and functionalities used to deliver that choice.

First, CableLabs has been designing the tools under which the cable industry can bring new product (e.g., "high value content") to consumers. The new high value content would include newly-released motion pictures which today are not available to cable in early release windows. It also would include video-on-demand. The cable industry is attempting to attract the owners of such product to cable so that cable customers will have an alternative to traveling to and from the video store or theater to obtain or see new releases. It is a fact of life that such high value content will not be available to cable customers so long as program owners regard cable as an insecure medium. The disparities in availability will only intensify as digital programming becomes more widely available. Just as conditional access (scrambling) helped drive the growth and availability of new cable programming for cable customers, the cable industry expects that reliable digital security will enable cable customers to access high-value digital programming over cable.

Second, CableLabs' efforts have been designed to achieve competitive parity between the cable television industry and DBS competitors that today serve some 18 million consumer households. At present, the direct broadcast satellite industry encrypts all digital programming, including "free" over-the-air broadcast signals. According to press reports (e.g., "HDTV Insider" Perfect Vision, November/December 2001, pp. 19-20, filed Nov. 29, 2001 in FCC PP Docket 00-67), Echostar and DirecTV have agreed to reduce the resolution of, or "down-res," high-definition television programming provided over so-called component analog outputs in order to reduce the risk to program owners that high-value, high quality programming will be pirated, copied or retransmitted onto the Internet or other media. Satellite carriers have been requiring such tools from their manufacturers—CEA member companies—without objection from Mr. Shapiro or CEA and without any untoward consequences. In order for cable customers to obtain access to the same digital content, it is essential that cable equipment contain similar security tools.

Third, the OpenCable project is designed to promote multiple manufacturers of STBs. Historically, cable operators have relied principally on two independent STB manufacturers. By promoting additional manufacturers building STBs to a common specification, CableLabs seeks to spur competition that will add features to, and reduce prices of, STBs. Our goals are not to restrict technology, but just the opposite: to use market forces to promote innovation and competitive offerings. In fact, PHILA explicitly invites manufacturers to add other features and functionalities. CableLabs has modeled its current STB efforts on its highly successful data over cable service interface specification ("DOCSIS") program. DOCSIS transformed the cable modem product from a proprietary device available only for lease from the cable operator at a relatively high cost, to a robust retail device available directly to consumers in consumer electronics stores. Through CableLabs testing and certification program, 221 different cable modems have been certified and 60 different manufacturers have had their cable modem product certified. The resulting competition reduced prices and increased retail availability to consumers. The current OpenCable process promises similar results. At the January 2001 Consumer Electronics Show, Panasonic demonstrated that the PHILA-licensed POD module worked on digital TVs with integrated set-top box functionality—even when reports suggest they had set out to show that it would fail. *Multichannel News,* March 18, 2002, p. 40.

How PHILA Works

PHILA (Pod-Host Interface License Agreement) is the acronym for the license agreement in which CableLabs provides a secure technology for the interface between POD modules supplied by the cable operator and retail "hosts" they plug into. This technology is necessary because once the POD module unscrambles a scrambled signal, that digital signal must pass back to the host device "in the clear," where it would be susceptible to piracy. CableLabs provides an encryption program to secure that signal and that will be recognized by STBs or integrated DTV sets that meet PHILA requirements. The programming content passed through the interface comes with embedded instructions about whether the content passing from the POD to the host may be copied freely, copied once, or copied never.

PHILA provides tools, not rules.

The relevant OpenCable specifications do not require particular content to be restricted from copying, nor do they require any particular content to be carried in the clear. The OpenCable specifications provide a tool box that will respond to copy control information that *may be* inserted into programming content by the cable operator pursuant to the terms of its affiliation agreement with a program owner. The host device must recognize these signals and respond to them appropriately. For example, if a high-value program is licensed to a cable operator on a "copy once" basis (for example, a motion picture still in theatrical release), the host device must recognize and protect that signal. Neither CableLabs nor PHILA *require* any content to be marked or unmarked. PHILA does not include "encoding rules" because CableLabs is providing technical tools, not inserting itself into the commercial relations between content providers and cable operators. CableLabs' role is not to dictate business terms, nor is it the proper role of a technology license in this context. In other contexts, different technology and licensing solutions may be appropriate. For example, in the sale of digital VCRs or CD players, there is no operating business relationship between the consumer and the program source that selects and manages programming or distribution to the consumer. But in the cable television and satellite industries, there are established businesses that select and manage programming and distribution. Cable operators have for decades negotiated with wholesale program sources to obtain the maximum programming and programming rights possible, in order to have the most attractive retail product to sell to consumers. It is not CableLabs' role to institute a single business arrangement to replace thousands of detailed bi-lateral business arrangements. Programming agreements are negotiated between program owners and individual cable operators.

The OpenCable technical tools provide the means for respecting any contractual requirements. Congress and the courts will always have the responsibility to define content owners rights with respect to making copies of their works (such as home copying or time shifting). The OpenCable technology provides flexible means for respecting those rules as they evolve or change. Rules and expectations do change over time. Providing a flexible technology that can respect those rules avoids the problems inherent in creating a large base of installed devices that cannot respond to changing legal or business rules. If cable systems do not have the flexible tools to respect business and

legal rules, or to respond to changes, consumers will not be able to obtain high value content electronically via cable, and/or intellectual property will be placed at risk or migrate to more secure and flexible platforms.

PHILA is respectful of home recording rights.

Mr. Shapiro's statement raises questions concerning continued consumer rights to make non-commercial home copies of broadcast programming. There should be no question that PHILA provides all the tools needed to respect home recording rights. CableLabs has sought to provide only technical tools for management and delivery of digital content to customers and does not in any way oppose home copying of broadcast programming, as Mr. Shapiro seems to suggest. By contrast, there is a different license—known as 5C—which certain studios have agreed to with consumer electronics manufacturers. The 5C license governs certain devices with 1394 interfaces. Those manufacturers have agreed to a 90-minute default retention limit on PVR copies. No such default restriction is included in PHILA.

Mr. Shapiro also complains that digital PVR recordings may not be readily removed from the PVR and plugged into other consumer electronic devices. There is a requirement in 5C, PHILA, and presumably in satellite STB contracts (although these are privately negotiated business contracts, unavailable to the public), that require devices that make digital copies be "robust" against hacking that would defeat copy protection and to resist removal of hardware that stores the digital copy. All security measures over an interface could be defeated if the user could simply remove the hard drive or print a perfect copy onto a removable CD that can be uploaded to the Internet or played anywhere. These protections may affect consumers' ability to record a program on one device and transfer it to another. But TIVO has grown in popularity with the same requirements. In addition, home network solutions exist today for sharing one PVR on multiple sets, and CableLabs has an active project to promote new home network solutions.

"Selectable output control" is an ordinary incident of different security systems for different outputs.

Mr. Shapiro paints an alarming portrait of cable operators or studios remotely disabling selective outputs of a STB. Selectable output control is an ordinary feature of outputs that utilize different security systems.

A common configuration of the next generation of STB would include two different digital outputs: a 1394 output connecting to home recording devices and an uncompressed DVI (digital video interface) output connecting to high-resolution displays. The 1394 interface provides a bi-directional connection for television receivers, recording devices, and set-top boxes to interact with compressed digital signals. The DVI interface is a one-way, higher-capacity connection to provide uncompressed video for display on a television monitor. 1394 uses an encryption called "5C," while DVI uses an encryption called "HDCP." These systems are not identical. Networks or devices are required to police for broken security and disable a compromised interface. Under the 5C agreement, if a 1394 interface has been compromised, the security "fail safe" may require that it be disabled pursuant to a well-defined due process that provides for both

notification and cure periods. Selective output control would permit the consumer to continue to watch broadcast and cable signals over a DVI output with the HDCP security intact. This kind of selectivity is merely an extension of the 5C and HDCP security arrangements that permit subscriber access to programming. It is a necessary result of having two outputs that protect digital content in two different ways. In order to maintain this capability to respect security, the OCAP specifications (referred to in PHILA) require the ability to turn off a particular output. We believe that Mr. Shapiro either misunderstands this issue or is using term "selectable output control" differently than we do.

Mr. Shapiro might be referring to a provision in PHILA that requires a manufacturer to "down-res" high-definition programming provided over component analog outputs. This "downresing" requirement has been included in PHILA a result of the failure of consumer electronics manufacturers to include digital connectors with standard copy protection on the digital television receivers they have brought to market. Receivers with 1394/5C and DVI/DCP digital connectors provide the tools that allow program owners to assure that high-value programming will not be copied or retransmitted onto the Internet or other media. Rather than including such connectors on digital sets, CE manufacturers have sought to flood the market with an installed base of TVs that lack any tools to respect intellectual property rights. These TVs use "component analog" outputs that provide the fully decoded high-definition video information over three separate wires in an analog form that can be processed directly by the display. But there is no widely used copy protection scheme for this high-definition signal like there is for NTSC analog signals. In order to provide some level of protection that would allow high-definition programming to flow to these TVs without inviting widespread copying, a method was devised (by content developers) that relies on a digital process to sub-sample or average the high-definition signal to a lower spatial resolution, greater than standard definition TV resolution. This lower-resolution signal is then provided on the component analog outputs in lieu of a high-definition signal.

The PHILA License filed in 2000 with the FCC also gave the manufacturer the option to simply turn off the component analog video feed if they chose not to include the down-res chips to secure such programming for their own competitive reasons. This was not a result encouraged by CableLabs, but was a choice to be made by the CE manufacturers—companies that Mr. Shapiro represents. In any event, devices equipped with OCAP applications will have no need—nor the ability—to turn off analog outputs, because they may utilize more specialized tools for protecting content.

The "down-res" capability requirement was included in PHILA in agreement with content providers who had informed CableLabs that programming could not be made available to transmission media without this capability in the device. We understand that Echostar has agreed to this capability in the satellite realm (and press reports indicate that DirecTV has similar requirements), so we understandably felt considerable competitive pressure not to standardize a cable STB that would be at a commercial disadvantage to a satellite STB. Otherwise, content providers would favor DBS over cable when providing high-value digital content to those competing distributors.

PHILA does not require that any particular content be *marked* to "down res," but it does require that the device be able to recognize such signals if they are required by the operator's application. We are informed that some content providers, but not all, may no longer require this functionality. But it would be imprudent for the cable industry to see subscribers provided with STBs that cannot meet the demands of content providers and which would be inferior to those deployed by DBS companies. If all content providers and distribution media, including DBS, agree to remove "down-resing" requirements and to remain bound by that decision, CableLabs would remove the requirement from PHILA.

We must make clear that under any scenario, cable operators cannot turn off service "at will" as Mr. Shapiro contends. The device may provide functionalities, but today FCC rules, state laws, and local franchises define the cable customer service rules. Contracts with program suppliers impose additional rules. STBs need an "off" switch, but cable operators may not activate it on a whim. Nor do they want to do so. Cable operators have no business reason to disable customers' reception of programs and thereby reduce their subscribership and revenue. They are focused on preserving the customer relationship. OpenCable is part of an industry effort to bring new programs, in earlier release windows, on a more flexible video-on-demand basis, to customers. Cable operators' incentives are to sell programming, not to disable it.

Cable is not disabling TVs.

Mr. Shapiro claims that if PHILA's requirements are permitted, cable will be stranding or disabling the devices of purchasers of first generation DTVs without digital connectors. The cable industry's record demonstrates quite the opposite.

Cable was the first industry to support the 1394/5C interface to permit high quality transfer of programming. CE manufacturers opposed any kind of copy protection, and obtained an FCC ruling that allowed them to omit 1394 interfaces from so-called "cable ready" DTV sets. Instead, CE manufacturers sought to flood the market with an installed base of TVs that lacked any tools to respect intellectual property rights.

In the summer of 2001, cable took the next step, along with DBS providers and content providers, and endorsed the DVI/HDCP connector to permit consumers to enjoy display of uncompressed digital video. Again, CE manufacturers continued to bring TV receivers without DVI interfaces and HDCP protection to market.

Even now, while some manufacturers are bringing DTVs with 1394/5C connectors (but not DVI) to market, other CE manufacturers are selling DTVs with DVI connectors, but without the needed HDCP copy protection. This reflects a deliberate choice to deploy TV receivers without the tools needed to respect intellectual property. This may save some small cost, but it will not advance the availability of digital programming through accepted interfaces.

Other CE vendors are continuing to introduce new DTVs *without* 1394 or DVI digital connectors, thereby creating the very legacy problem for consumers for which Mr. Shapiro seeks to blame the cable industry. In fact, the cable industry is clearly committed to providing the interfaces and appropriate standard copy protection mechanisms needed

to provide digital and high-definition services to the wide variety of TV sets in the market.

The critical missing link to ensuring the availability of attractive digital content to consumers is an industry-wide commitment by CE manufacturers to include appropriate digital connectors on all DTVs and digital recording devices. But rather than accept any responsibility for the DTV transition, Mr. Shapiro instead seeks to draw attention away from the CE industry's critical omission by misstatements about CableLabs and the PHILA license. The cable industry would not have been put to the cost of addressing the "down-res" issue, and consumers would not have been misled, had the consumer electronics industry incorporated digital connectors from the outset.

The PHILA Process is not "held secret."

The form of the PHILA submitted to the FCC in December 2000, was created to address many issues and interests that had been raised in multi-party discussions involving program suppliers, cable operators, and consumer equipment manufacturers. It was the subject of comment in various forums. The public, multi-party nature of the discussions seemed to impede the ability to reach agreement between the licensor of the technology (CableLabs) and individual manufacturers who would actually build the retail host devices that will fulfill the "commercial availability" goal envisioned by Section 629 of the Communications Act.

CableLabs therefore engaged experienced outside counsel in mid-2001 to overcome that apparent procedural obstacle with more tailored negotiations that could satisfy multiple and diverse manufacturers' interests. This is the same arrangement under which manufacturers reach agreement with DirecTV for STBs; similar to the in-house arrangement by which Echostar supplies itself with STBs; and these DBS-STB agreements and arrangements remain confidential. By engaging in individual, confidential negotiations with each interested manufacturer, we created an environment in which individual concerns about business and market needs could be expressed and addressed sufficiently to reach agreement. To date, CableLabs has entered into PHILA agreements with the leading STB manufacturers in the U.S. and Europe.

The CableLabs' OpenCable web site spells out the process. It posts a master form of PHILA. Any manufacturer can obtain the agreement from the CableLabs' representatives with whom the negotiations can proceed. In order to permit manufacturers to discuss their unique interests, and to create the normal commercial environment for business negotiations, the discussions are held under non-disclosure agreement (NDA). In order to assure that the terms remain non-discriminatory, each manufacturer is the beneficiary of the "most favored nations" clause that has been included in PHILA since its filing in 2000. Under this provision, CableLabs will not enforce a less favorable clause against any prior signatory.

As mentioned, three manufacturers have now signed the production version of the PHILA. Several other negotiations are in progress. We believe that the ability to conduct business negotiations in a confidential environment has been essential for reaching agreement. At the conclusion of this process (that is, after additional

manufacturers have signed or expressed no business interest in entering into this line of business), CableLabs plans to restate the contract to all parties to a single form.

The terms of the current PHILA have been shared with the FCC under the ordinary procedures for handling commercial confidential information at the agency. After review of the process, the FCC allowed such negotiations to continue in the current confidential, commercial, business-oriented manner.

We believe that efforts by HRRC and CEA to paint these ordinary procedures as secret and suspicious are grossly misleading. In any event, the issue is now moot. The current version of PHILA is posted to the CableLabs' web site (http://www.opencable.com/documents.html), and we will periodically update it as modifications are adopted in bilateral negotiations. This version reflects the terms from which we currently start our discussions with manufacturers. Posting this updated version does not mean that we will not continue to modify terms to meet legitimate needs of manufacturers. We plan to continue to do so in confidential, bilateral settings. This process has proven far more effective in reaching agreement than the public, multi-party efforts under which prior efforts had stalled. At present, we are mid-stream in the negotiation process.

There is no basis for legislative or regulatory intervention at this time.

We believe that no government intervention is appropriate. Private licensing is working to bring new manufacturers into the market. For instance, Pace Technologies, which is the leading manufacturer of STBs in Europe but which historically has not been a supplier to the U.S. cable industry, has entered into PHILA. We are convinced that by attracting additional manufacturers, competition will add features to, and reduce prices of, STBs. The OpenCable project and PHILA provide the tools for technical progress, for new programming to reach cable consumers, and for greater innovation to be brought into the STB market. The cable industry has been in the forefront of promoting digital technologies to interface with consumer devices, although manufacturers continue to fail to provide adequate digital connectors. CableLabs specifications were reached through open processes in which manufacturers fully participated. It is modeled on the successful DOCSIS program, and we anticipate similar success. Cable subscribers should have all the options to view programming available through competing technology. In order for cable customers to have access to the same quality programming, it is essential that cable equipment have similar security tools available as are available in the DBS market. The PHILA agreement and OpenCable process provide tools to respect reasonable consumer, business, and legal expectations—today and tomorrow.

Conclusion

We appreciate the opportunity to correct the record, and would be pleased to work with you and your staff in explaining these issues and resolving any further questions.

Sincerely,

Richard R. Green
President and Chief Executive Officer
Cable Television Laboratories, Inc.

CableLabs®

Cable Television Laboratories, Inc.

April 8, 2002

The Honorable Orrin G. Hatch
Ranking Republican Member
Committee on the Judiciary
United States Senate
152 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Hatch:

I am writing in response to a March 14, 2002 written statement filed with your Committee by Gary Shapiro on behalf of the Home Recording Rights Coalition. Mr. Shapiro did not testify before the Committee nor appear for questioning, but since his written statement contains broad charges concerning the work that CableLabs has been doing to promote consumers' access to new programming, we feel compelled to correct the record.

Mr. Shapiro's statement is largely directed to Hollywood studios, but he paints an alarming portrait of one part of CableLabs' work. He contends that the POD-Host Interface License Agreement (PHILA) governing the interface between cable television conditional access modules and "host" integrated digital television receivers (DTV) and set-top boxes (STB) deny consumers' rights of "Fair Use" home copying; that it is designed to turn off consumers' TV sets on whim; that it would disable the TV sets of purchasers of first generation digital television sets; and that all of this is being done in "secret" in negotiations over the PHILA between CableLabs and DTV and STB manufacturers. This portrait is highly inflammatory and inaccurate.

Executive Summary

CableLabs is a scientific organization that serves as the research and development consortium of the North American cable television industry, rather than an advocacy group. The CableLabs' OpenCable™ project, which developed the "POD-Host" interface specification, is part of an industry-wide effort to encourage competing manufacturers to build competitive but interoperable next-generation digital consumer devices, and to promote consumer choice, retail availability and competition.

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PHILA provides tools, not rules. The PHILA provides a secure technology for the interface between separate security Point of Deployment modules (PODs) supplied by the cable operator and retail "hosts" they plug into. It prevents piracy of the digital signal as it passes to the host device. These are the tools under which cable operators can bring new "high value" content to consumers, such as newly-released motion pictures in early release windows and video-on-demand. At present, the direct broadcast satellite industry encrypts all digital programming, including "free" over-the-air broadcast signals. According to press reports, Echostar and DirecTV have agreed to reduce the resolution, or "down-res," high-definition television programming provided over so-called component analog outputs in order to reduce the risk to program owners that high-value, high quality programming will be pirated, copied or retransmitted onto the Internet or other media. In order for cable customers to obtain access to the same digital content, it is essential that cable equipment contain similar security tools. High value content will not be available to cable customers so long as program owners regard cable as an insecure medium.

The PHILA provisions and OpenCable specifications do not require particular content to be restricted from copying, nor do they require any particular content to be carried in the clear. The OpenCable specifications provide a tool box that will respond to copy control information that may be inserted into programming content by the cable operator pursuant to the terms of its affiliation agreement with a program owner. It is not CableLabs' role to institute a single business arrangement to replace thousands of detailed bi-lateral business arrangements. Congress and the courts will always have the responsibility to define content owners rights with respect to making copies of their works (such as home copying or time shifting).

PHILA is respectful of time shifting for home use. As far as PHILA is concerned, it fully accommodates internal personal video recorders (PVRs) that record and store home copies. PHILA also follows a widely-accepted requirement (that consumer electronics manufacturers have accepted in similar licenses) that devices that make digital copies must be "robust" to prevent hacking that would defeat copy protection and to resist removal of hardware that stores the digital copy. All security measures over an interface could be defeated if the user could simply remove the hard drive or print a perfect copy onto a removable CD that can be uploaded to the Internet or played anywhere. Such requirements have not slowed the popularity of TIVO.

"Selectable output control" is an ordinary incident of different security systems for different outputs. Complaints about "selectable output control" may be based on a misunderstanding. With regard to digital outputs, it is important to note that devices often use multiple outputs employing different security. It is possible that the security of a digital output might be compromised. In that event, it may be necessary to route programming to an alternate digital output known to be secure. This kind of selectivity—which is not a part of PHILA, but is incorporated within the OpenCable specifications—is merely an extension of the security arrangements that permit subscriber access to protected digital content in alternate ways. The Cable Industry strongly supports the use of both 1394 and DVI connection for this and other technical reasons. The 1394 output

uses an encryption called "5C," while DVI (digital video interface) uses an encryption called "HDCP." These systems (described in detail later) are not identical. Under the 5C license—authored by a number of Mr. Shapiro's members—if a 1394 interface has been compromised, the security "fail safe" may require that it be disabled pursuant to a well-defined due process that provides for both notification and cure periods. Selective output control would permit the consumer to continue to watch broadcast and cable signals over a DVI output with the HDCP security intact.

PHILA does include a provision requiring the capability for "down-resing" of high-definition programming provided over component analog outputs, in order to maintain the ability of a device to respect such requirements that may be imposed by content providers. That provision was included because television manufacturers have failed to include connectors on digital sets that respect intellectual property rights. These TVs use "component analog" outputs that provide the fully decoded high-definition video information over three separate wires in an analog form that can be processed directly by the display—but with no widely used copy protection scheme. "Down-resing" can provide some level of protection by allowing high-definition programming to flow to these TVs without inviting widespread compromise of the high resolution images. CableLabs included it in PHILA, in agreement with content owners, in order to provide a usable analog output in lieu of the possibility of no analog output at all. This output was also included in order to match requirements in DBS receivers. If all content providers and distribution media, including DBS, agree to remove "down-resing" requirements and to remain bound by that decision, CableLabs would remove the requirement from PHILA.

Cable is not stranding or disabling the devices of purchasers of first generation DTVs. Cable operators have no business reason to disable customers' reception of programs and thereby reduce their subscriber count and revenue. Cable operators' incentives are to sell programming, not to disable it. Cable was the first industry to support the 1394/5C interface to permit high quality transfer of programming. In the summer of 2001, cable took the next step, and endorsed the DVI/HDCP connector to permit consumers to enjoy display of uncompressed digital video. The cable industry is clearly committed to providing the interfaces and appropriate standard copy protection mechanisms needed to provide digital and high definition services to the wide variety of TV sets in the market. By contrast, CE manufacturers opposed any kind of copy protection. They obtained an FCC ruling that allowed them to omit 1394 interfaces from so-called "cable ready" DTV sets. They continue to bring TV receivers without DVI interfaces (or HDCP protection) to market. This reflects a deliberate choice to deploy TV receivers without the tools needed to respect intellectual property, thereby creating the very legacy problem for consumers for which Mr. Shapiro seeks to blame the cable industry. This may save some small cost, but it will not advance the availability of digital programming through accepted interfaces.

The PHILA process was never "held secret." The current version is posted publicly. PHILA was created from multi-party discussions involving program suppliers, cable operators, and consumer equipment manufacturers, and was the subject of comment in various forums. Using the same arrangement under which manufacturers reach (confidential) agreements with DBS for STBs, CableLabs created an environment in

which individual manufacturer concerns could be expressed and addressed sufficiently to reach agreement in a confidential, commercial, business-oriented manner. In order to assure that the terms remain non-discriminatory, each manufacturer is the beneficiary of the "most favored nations" clause that has been included in PHILA since its filing with the FCC in 2000. To date, CableLabs has entered into PHILA agreements with the leading STB manufacturers in the U.S. and Europe. The terms of the current PHILA have been shared with the FCC under the ordinary procedures for handling commercial confidential information at the agency. There is nothing secret or suspicious about these ordinary procedures. To dispel any doubt, we have posted the current version of PHILA to our web site (http://www.opencable.com/documents.html), and we will periodically update it as modifications are adopted in bilateral negotiations.

CableLabs specifications were reached through open processes in which manufacturers fully participated. It is modeled on CableLabs' successful "DOCSIS" program, which transformed the cable modem product from a proprietary device available only for lease from the cable operator at a relatively high cost, to a retail device, with 221 different certified cable modems from 60 different manufacturers, available directly to consumers in consumer electronics stores. The current OpenCable process promises similar results. At the January 2001 Consumer Electronics Show, Panasonic demonstrated that the PHILA-licensed POD worked on digital TVs with integrated set-top box functionality. Under the circumstances, we believe that no government intervention is appropriate.

Detailed Discussion

Background on CableLabs Effort to Promote Consumer Choice

CableLabs is the research and development consortium of the North American cable television industry. Unlike the HRRC or Consumer Electronics Association, which Mr. Shapiro also heads, CableLabs is a scientific organization, not an advocacy group.

Let me first provide some background on CableLabs' OpenCable project, which includes the "POD-Host" interface specification. Most of the cable television industry has historically been dependent upon several manufacturers of proprietary headend equipment and associated set-top boxes. The Telecommunications Act of 1996 directed the FCC to create rules that would allow consumers to obtain STBs and other equipment from commercial sources, such as retailers, manufacturers and other sources besides cable operators, subject to "theft of service" considerations. In order to promote the "commercial availability" of navigation devices envisioned by Section 629 of the Communications Act—and without defeating the security components of set-top boxes—FCC rules require that cable operators make available separable security components called point-of-deployment (POD) security modules, that can plug into compatible "host" devices. The POD modules enable manufacturers and retailers to engage in retail sale of interoperable navigation devices, such as set-top boxes and "integrated" digital television sets that have the STB functionality included. In order to expedite this process, the FCC

essentially merged this project into CableLabs' ongoing "OpenCable" project. As a result, CableLabs completed specifications for the POD module and the interface for the "host" devices, and verified that the removable POD modules were able to display analog video and audio, digital video and audio, and were able to decrypt digital video and audio in compliant manufacturers' host devices.

It is important to note that the OpenCable process through which these specifications were developed, reviewed, and refined has been an open and inclusive process, with participation by a broad spectrum of interests, including more than 500 private sector companies and organizations. The list encompasses a wide range of organizations, including cable operators, traditional cable equipment manufacturers, consumer electronics manufacturers, retailers, content providers, computer manufacturers, software developers, satellite service providers, telecommunications equipment manufacturers and service providers, research institutes, and trade associations.

The OpenCable project publishes hardware and software specifications to encourage competing manufacturers to build competitive but interoperable next-generation digital consumer devices, and to promote retail competition. The hardware specification allows a digital television receiver that is sold at retail to be operated by direct connection to any cable system. The software specification, called the OpenCable Applications Platform (OCAP), solves the problem of proprietary operating system software by creating a common platform upon which interactive services may be deployed. OCAP is the "middleware" software layer that enables the developers of interactive television services and applications to design products that will run successfully on any cable television system in North America, regardless of the particular brand of STB or television receiver hardware or operating system software connected to the cable system. CableLabs is now supporting interoperability tests wherein CableLabs' state-of-the-art digital cable headends and facilities are made available to assist this pro-competitive effort. The OpenCable project will reduce the time to market for products, services, and applications; increase the diversity of products and services available to consumers; decrease the cost of such products and services to consumers through competition in the STB and integrated TV market; and improve the overall performance and reliability of such products and services.

To date, a wide variety of companies have participated in interoperability trials with CableLabs. The companies include headend equipment providers: DiviCom, Motorola, and Scientific-Atlanta; host device providers: LG Electronics, Microsoft/SCM Microsystems, Motorola, Panasonic, Philips, Samsung, Scientific-Atlanta, Sony Electronics, Thomson Consumer Electronics, and Zenith; POD Module providers: Mindport, Motorola, Nagra, NDS, Scientific-Atlanta and SCM Microsystems; and OCAP middleware participants: Sun Microsystems, Liberate, Microsoft, Philips, OpenTV, PowerTV, and Canal+.

In each of these endeavors, CableLabs has been working a broad three-part agenda to promote consumer choice and to reduce the cost of products and functionalities used to deliver that choice.

First, CableLabs has been designing the tools under which the cable industry can bring new product (e.g., "high value content") to consumers. The new high value content would include newly-released motion pictures which today are not available to cable in early release windows. It also would include video-on-demand. The cable industry is attempting to attract the owners of such product to cable so that cable customers will have an alternative to traveling to and from the video store or theater to obtain or see new releases. It is a fact of life that such high value content will not be available to cable customers so long as program owners regard cable as an insecure medium. The disparities in availability will only intensify as digital programming becomes more widely available. Just as conditional access (scrambling) helped drive the growth and availability of new cable programming for cable customers, the cable industry expects that reliable digital security will enable cable customers to access high-value digital programming over cable.

Second, CableLabs' efforts have been designed to achieve competitive parity between the cable television industry and DBS competitors that today serve some 18 million consumer households. At present, the direct broadcast satellite industry encrypts all digital programming, including "free" over-the-air broadcast signals. According to press reports (e.g., "HDTV Insider" Perfect Vision, November/December 2001, pp. 19-20, filed Nov. 29, 2001 in FCC PP Docket 00-67), Echostar and DirecTV have agreed to reduce the resolution of, or "down-res," high-definition television programming provided over so-called component analog outputs in order to reduce the risk to program owners that high-value, high quality programming will be pirated, copied or retransmitted onto the Internet or other media. Satellite carriers have been requiring such tools from their manufacturers—CEA member companies—without objection from Mr. Shapiro or CEA and without any untoward consequences. In order for cable customers to obtain access to the same digital content, it is essential that cable equipment contain similar security tools.

Third, the OpenCable project is designed to promote multiple manufacturers of STBs. Historically, cable operators have relied principally on two independent STB manufacturers. By promoting additional manufacturers building STBs to a common specification, CableLabs seeks to spur competition that will add features to, and reduce prices of, STBs. Our goals are not to restrict technology, but just the opposite: to use market forces to promote innovation and competitive offerings. In fact, PHILA explicitly invites manufacturers to add other features and functionalities. CableLabs has modeled its current STB efforts on its highly successful data over cable service interface specification ("DOCSIS") program. DOCSIS transformed the cable modem product from a proprietary device available only for lease from the cable operator at a relatively high cost, to a robust retail device available directly to consumers in consumer electronics stores. Through CableLabs testing and certification program, 221 different cable modems have been certified and 60 different manufacturers have had their cable modem product certified. The resulting competition reduced prices and increased retail availability to consumers. The current OpenCable process promises similar results. At the January 2001 Consumer Electronics Show, Panasonic demonstrated that the PHILA-licensed POD module worked on digital TVs with integrated set-top box functionality—even when reports suggest they had set out to show that it would fail. *Multichannel News,* March 18, 2002, p. 40.

How PHILA Works

PHILA (Pod-Host Interface License Agreement) is the acronym for the license agreement in which CableLabs provides a secure technology for the interface between POD modules supplied by the cable operator and retail "hosts" they plug into. This technology is necessary because once the POD module unscrambles a scrambled signal, that digital signal must pass back to the host device "in the clear," where it would be susceptible to piracy. CableLabs provides an encryption program to secure that signal and that will be recognized by STBs or integrated DTV sets that meet PHILA requirements. The programming content passed through the interface comes with embedded instructions about whether the content passing from the POD to the host may be copied freely, copied once, or copied never.

PHILA provides tools, not rules.

The relevant OpenCable specifications do not require particular content to be restricted from copying, nor do they require any particular content to be carried in the clear. The OpenCable specifications provide a tool box that will respond to copy control information that *may be* inserted into programming content by the cable operator pursuant to the terms of its affiliation agreement with a program owner. The host device must recognize these signals and respond to them appropriately. For example, if a high-value program is licensed to a cable operator on a "copy once" basis (for example, a motion picture still in theatrical release), the host device must recognize and protect that signal. Neither CableLabs nor PHILA *require* any content to be marked or unmarked. PHILA does not include "encoding rules" because CableLabs is providing technical tools, not inserting itself into the commercial relations between content providers and cable operators. CableLabs' role is not to dictate business terms, nor is it the proper role of a technology license in this context. In other contexts, different technology and licensing solutions may be appropriate. For example, in the sale of digital VCRs or CD players, there is no operating business relationship between the consumer and the program source that selects and manages programming or distribution to the consumer. But in the cable television and satellite industries, there are established businesses that select and manage programming and distribution. Cable operators have for decades negotiated with wholesale program sources to obtain the maximum programming and programming rights possible, in order to have the most attractive retail product to sell to consumers. It is not CableLabs' role to institute a single business arrangement to replace thousands of detailed bi-lateral business arrangements. Programming agreements are negotiated between program owners and individual cable operators.

The OpenCable technical tools provide the means for respecting any contractual requirements. Congress and the courts will always have the responsibility to define content owners rights with respect to making copies of their works (such as home copying or time shifting). The OpenCable technology provides flexible means for respecting those rules as they evolve or change. Rules and expectations do change over time. Providing a flexible technology that can respect those rules avoids the problems inherent in creating a large base of installed devices that cannot respond to changing legal or business rules. If cable systems do not have the flexible tools to respect business and

legal rules, or to respond to changes, consumers will not be able to obtain high value content electronically via cable, and/or intellectual property will be placed at risk or migrate to more secure and flexible platforms.

PHILA is respectful of home recording rights.

Mr. Shapiro's statement raises questions concerning continued consumer rights to make non-commercial home copies of broadcast programming. There should be no question that PHILA provides all the tools needed to respect home recording rights. CableLabs has sought to provide only technical tools for management and delivery of digital content to customers and does not in any way oppose home copying of broadcast programming, as Mr. Shapiro seems to suggest. By contrast, there is a different license—known as 5C—which certain studios have agreed to with consumer electronics manufacturers. The 5C license governs certain devices with 1394 interfaces. Those manufacturers have agreed to a 90-minute default retention limit on PVR copies. No such default restriction is included in PHILA.

Mr. Shapiro also complains that digital PVR recordings may not be readily removed from the PVR and plugged into other consumer electronic devices. There is a requirement in 5C, PHILA, and presumably in satellite STB contracts (although these are privately negotiated business contracts, unavailable to the public), that require devices that make digital copies be "robust" against hacking that would defeat copy protection and to resist removal of hardware that stores the digital copy. All security measures over an interface could be defeated if the user could simply remove the hard drive or print a perfect copy onto a removable CD that can be uploaded to the Internet or played anywhere. These protections may affect consumers' ability to record a program on one device and transfer it to another. But TIVO has grown in popularity with the same requirements. In addition, home network solutions exist today for sharing one PVR on multiple sets, and CableLabs has an active project to promote new home network solutions.

"Selectable output control" is an ordinary incident of different security systems for different outputs.

Mr. Shapiro paints an alarming portrait of cable operators or studios remotely disabling selective outputs of a STB. Selectable output control is an ordinary feature of outputs that utilize different security systems.

A common configuration of the next generation of STB would include two different digital outputs: a 1394 output connecting to home recording devices and an uncompressed DVI (digital video interface) output connecting to high-resolution displays. The 1394 interface provides a bi-directional connection for television receivers, recording devices, and set-top boxes to interact with compressed digital signals. The DVI interface is a one-way, higher-capacity connection to provide uncompressed video for display on a television monitor. 1394 uses an encryption called "5C," while DVI uses an encryption called "HDCP." These systems are not identical. Networks or devices are required to police for broken security and disable a compromised interface. Under the 5C agreement, if a 1394 interface has been compromised, the security "fail safe" may require that it be disabled pursuant to a well-defined due process that provides for both

notification and cure periods. Selective output control would permit the consumer to continue to watch broadcast and cable signals over a DVI output with the HDCP security intact. This kind of selectivity is merely an extension of the 5C and HDCP security arrangements that permit subscriber access to programming. It is a necessary result of having two outputs that protect digital content in two different ways. In order to maintain this capability to respect security, the OCAP specifications (referred to in PHILA) require the ability to turn off a particular output. We believe that Mr. Shapiro either misunderstands this issue or is using term "selectable output control" differently than we do.

Mr. Shapiro might be referring to a provision in PHILA that requires a manufacturer to "down-res" high-definition programming provided over component analog outputs. This "downresing" requirement has been included in PHILA a result of the failure of consumer electronics manufacturers to include digital connectors with standard copy protection on the digital television receivers they have brought to market. Receivers with 1394/5C and DVI/DCP digital connectors provide the tools that allow program owners to assure that high-value programming will not be copied or retransmitted onto the Internet or other media. Rather than including such connectors on digital sets, CE manufacturers have sought to flood the market with an installed base of TVs that lack any tools to respect intellectual property rights. These TVs use "component analog" outputs that provide the fully decoded high-definition video information over three separate wires in an analog form that can be processed directly by the display. But there is no widely used copy protection scheme for this high-definition signal like there is for NTSC analog signals. In order to provide some level of protection that would allow high-definition programming to flow to these TVs without inviting widespread copying, a method was devised (by content developers) that relies on a digital process to sub-sample or average the high-definition signal to a lower spatial resolution, greater than standard definition TV resolution. This lower-resolution signal is then provided on the component analog outputs in lieu of a high-definition signal.

The PHILA License filed in 2000 with the FCC also gave the manufacturer the option to simply turn off the component analog video feed if they chose not to include the down-res chips to secure such programming for their own competitive reasons. This was not a result encouraged by CableLabs, but was a choice to be made by the CE manufacturers—companies that Mr. Shapiro represents. In any event, devices equipped with OCAP applications will have no need—nor the ability—to turn off analog outputs, because they may utilize more specialized tools for protecting content.

The "down-res" capability requirement was included in PHILA in agreement with content providers who had informed CableLabs that programming could not be made available to transmission media without this capability in the device. We understand that Echostar has agreed to this capability in the satellite realm (and press reports indicate that DirecTV has similar requirements), so we understandably felt considerable competitive pressure not to standardize a cable STB that would be at a commercial disadvantage to a satellite STB. Otherwise, content providers would favor DBS over cable when providing high-value digital content to those competing distributors.

PHILA does not require that any particular content be *marked* to "down res," but it does require that the device be able to recognize such signals if they are required by the operator's application. We are informed that some content providers, but not all, may no longer require this functionality. But it would be imprudent for the cable industry to see subscribers provided with STBs that cannot meet the demands of content providers and which would be inferior to those deployed by DBS companies. If all content providers and distribution media, including DBS, agree to remove "down-resing" requirements and to remain bound by that decision, CableLabs would remove the requirement from PHILA.

We must make clear that under any scenario, cable operators cannot turn off service "at will" as Mr. Shapiro contends. The device may provide functionalities, but today FCC rules, state laws, and local franchises define the cable customer service rules. Contracts with program suppliers impose additional rules. STBs need an "off" switch, but cable operators may not activate it on a whim. Nor do they want to do so. Cable operators have no business reason to disable customers' reception of programs and thereby reduce their subscribership and revenue. They are focused on preserving the customer relationship. OpenCable is part of an industry effort to bring new programs, in earlier release windows, on a more flexible video-on-demand basis, to customers. Cable operators' incentives are to sell programming, not to disable it.

Cable is not disabling TVs.

Mr. Shapiro claims that if PHILA's requirements are permitted, cable will be stranding or disabling the devices of purchasers of first generation DTVs without digital connectors. The cable industry's record demonstrates quite the opposite.

Cable was the first industry to support the 1394/5C interface to permit high quality transfer of programming. CE manufacturers opposed any kind of copy protection, and obtained an FCC ruling that allowed them to omit 1394 interfaces from so-called "cable ready" DTV sets. Instead, CE manufacturers sought to flood the market with an installed base of TVs that lacked any tools to respect intellectual property rights.

In the summer of 2001, cable took the next step, along with DBS providers and content providers, and endorsed the DVI/HDCP connector to permit consumers to enjoy display of uncompressed digital video. Again, CE manufacturers continued to bring TV receivers without DVI interfaces and HDCP protection to market.

Even now, while some manufacturers are bringing DTVs with 1394/5C connectors (but not DVI) to market, other CE manufacturers are selling DTVs with DVI connectors, but without the needed HDCP copy protection. This reflects a deliberate choice to deploy TV receivers without the tools needed to respect intellectual property. This may save some small cost, but it will not advance the availability of digital programming through accepted interfaces.

Other CE vendors are continuing to introduce new DTVs *without* 1394 or DVI digital connectors, thereby creating the very legacy problem for consumers for which Mr. Shapiro seeks to blame the cable industry. In fact, the cable industry is clearly committed to providing the interfaces and appropriate standard copy protection mechanisms needed

to provide digital and high-definition services to the wide variety of TV sets in the market.

The critical missing link to ensuring the availability of attractive digital content to consumers is an industry-wide commitment by CE manufacturers to include appropriate digital connectors on all DTVs and digital recording devices. But rather than accept any responsibility for the DTV transition, Mr. Shapiro instead seeks to draw attention away from the CE industry's critical omission by misstatements about CableLabs and the PHILA license. The cable industry would not have been put to the cost of addressing the "down-res" issue, and consumers would not have been misled, had the consumer electronics industry incorporated digital connectors from the outset.

The PHILA Process is not "held secret."

The form of the PHILA submitted to the FCC in December 2000, was created to address many issues and interests that had been raised in multi-party discussions involving program suppliers, cable operators, and consumer equipment manufacturers. It was the subject of comment in various forums. The public, multi-party nature of the discussions seemed to impede the ability to reach agreement between the licensor of the technology (CableLabs) and individual manufacturers who would actually build the retail host devices that will fulfill the "commercial availability" goal envisioned by Section 629 of the Communications Act.

CableLabs therefore engaged experienced outside counsel in mid-2001 to overcome that apparent procedural obstacle with more tailored negotiations that could satisfy multiple and diverse manufacturers' interests. This is the same arrangement under which manufacturers reach agreement with DirecTV for STBs; similar to the in-house arrangement by which Echostar supplies itself with STBs; and these DBS-STB agreements and arrangements remain confidential. By engaging in individual, confidential negotiations with each interested manufacturer, we created an environment in which individual concerns about business and market needs could be expressed and addressed sufficiently to reach agreement. To date, CableLabs has entered into PHILA agreements with the leading STB manufacturers in the U.S. and Europe.

The CableLabs' OpenCable web site spells out the process. It posts a master form of PHILA. Any manufacturer can obtain the agreement from the CableLabs' representatives with whom the negotiations can proceed. In order to permit manufacturers to discuss their unique interests, and to create the normal commercial environment for business negotiations, the discussions are held under non-disclosure agreement (NDA). In order to assure that the terms remain non-discriminatory, each manufacturer is the beneficiary of the "most favored nations" clause that has been included in PHILA since its filing in 2000. Under this provision, CableLabs will not enforce a less favorable clause against any prior signatory.

As mentioned, three manufacturers have now signed the production version of the PHILA. Several other negotiations are in progress. We believe that the ability to conduct business negotiations in a confidential environment has been essential for reaching agreement. At the conclusion of this process (that is, after additional

manufacturers have signed or expressed no business interest in entering into this line of business), CableLabs plans to restate the contract to all parties to a single form.

The terms of the current PHILA have been shared with the FCC under the ordinary procedures for handling commercial confidential information at the agency. After review of the process, the FCC allowed such negotiations to continue in the current confidential, commercial, business-oriented manner.

We believe that efforts by HRRC and CEA to paint these ordinary procedures as secret and suspicious are grossly misleading. In any event, the issue is now moot. The current version of PHILA is posted to the CableLabs' web site (http://www.opencable.com/documents.html), and we will periodically update it as modifications are adopted in bilateral negotiations. This version reflects the terms from which we currently start our discussions with manufacturers. Posting this updated version does not mean that we will not continue to modify terms to meet legitimate needs of manufacturers. We plan to continue to do so in confidential, bilateral settings. This process has proven far more effective in reaching agreement than the public, multi-party efforts under which prior efforts had stalled. At present, we are mid-stream in the negotiation process.

There is no basis for legislative or regulatory intervention at this time.

We believe that no government intervention is appropriate. Private licensing is working to bring new manufacturers into the market. For instance, Pace Technologies, which is the leading manufacturer of STBs in Europe but which historically has not been a supplier to the U.S. cable industry, has entered into PHILA. We are convinced that by attracting additional manufacturers, competition will add features to, and reduce prices of, STBs. The OpenCable project and PHILA provide the tools for technical progress, for new programming to reach cable consumers, and for greater innovation to be brought into the STB market. The cable industry has been in the forefront of promoting digital technologies to interface with consumer devices, although manufacturers continue to fail to provide adequate digital connectors. CableLabs specifications were reached through open processes in which manufacturers fully participated. It is modeled on the successful DOCSIS program, and we anticipate similar success. Cable subscribers should have all the options to view programming available through competing technology. In order for cable customers to have access to the same quality programming, it is essential that cable equipment have similar security tools available as are available in the DBS market. The PHILA agreement and OpenCable process provide tools to respect reasonable consumer, business, and legal expectations—today and tomorrow.

Conclusion

We appreciate the opportunity to correct the record, and would be pleased to work with you and your staff in explaining these issues and resolving any further questions.

Sincerely,

Richard R. Green
President and Chief Executive Officer
Cable Television Laboratories, Inc.