



Consumer Electronics Association
2500 Wilson Blvd.
Arlington, VA
22201-3834 USA
(866) 858-1555 toll free
(703) 907-7600 main
(703) 907-7601 fax
www.CE.org

November 7, 2006

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: CS Docket No. 97-80
Proposal for Bi-Directional Digital Cable Compatibility and Related Issues

Dear Ms. Dortch:

The undersigned consumer electronics (“CE”) and information technology (“IT”) companies¹ and the Consumer Electronics Association (“CEA”) are pleased to present the Federal Communications Commission (“Commission”) with a comprehensive proposal to achieve bi-directional digital cable compatibility and address related issues. We believe that this proposal, if implemented, will substantially increase consumer choice by quickly and effectively bringing a wide variety of two-way “plug-and-play” devices to market. As the Commission is well aware, more than two years of negotiations between the cable, CE and IT industries have not yielded a mutual agreement on a bi-directional specification. In addition to frustrating the goals of Section 629 of the Communications Act, this delay has harmed both the cable and CE and IT industries and, most importantly, consumers. Cable customers who wish to obtain even the simplest interactive digital services presently have no alternative to leasing a cable operator-supplied box and relying on multiple remote controls and devices. Consumers deserve an easier, more elegant, option: a single, integrated device that displays and allows them to navigate among the interactive video services of their choice.

With this proposal (the “Proposal”), we seek to move the process forward in a fair and constructive manner.² We believe that the Proposal is technically feasible and relatively inexpensive to implement, reasonable from the business perspectives of all affected industries, and good public policy. In developing the Proposal, we have built on our experience in negotiating and implementing the one-way plug and play memorandum of understanding (“MOU”), while avoiding impositions on the cable industry that are not necessary to bring a range of competitive “two-way” products to market. In order to present a comprehensive

¹ Sony Electronics Inc., Dell Inc., Hitachi Home Electronics (America), Inc., Intel Corporation, JVC Americas Corp., Microsoft Corporation, Mitsubishi Digital Electronics America, Inc., Philips Electronics North America Corp., Pioneer North America, Inc., Sharp Laboratories of America, Toshiba America Consumer Products, LLC, and TTE Corporation.

² Our Proposal builds on and has been developed in response to comments and data already on the record in CS Docket No. 97-80, including previously filed proposals by the CEA and the National Cable and Telecommunications Association (“NCTA”) for two-way digital cable compatibility. Accordingly, we believe the Commission can act on the Proposal without seeking additional comment.

solution that can be adopted expeditiously by the Commission, we also have sought to address virtually all of the open issues in CS Docket No. 97-80, including common reliance, downloadable security, and home networking.

Achieving a workable regulatory framework for “two-way” products should involve competitive entry across the spectrum of the marketplace, including, but not limited to, the “low end” (unidirectional products) or the “high end” presently defined “OCAP” products. Such a framework must also include support for non-OCAP retail products, equivalent to those for which a waiver has been sought by Comcast and Charter.³ This approach would give consumers access to basic two-way programming without saddling them with unnecessary costs and untested technologies. It would require developing extensions to today’s CableCARD specification that would allow a consumer to make interactive program selections (*e.g.*, choosing a particular Video-on-Demand program) and allow the cable operator to effectuate the consumer’s choices.

The goal of the Proposal is to allow competitive CE and IT manufacturers to build devices that, from the consumer perspective, are functionally equivalent to proprietary leased products. To date, it appears that cable providers do not intend to use the OpenCable Application Platform (“OCAP”) middleware software in their purportedly “low-cost, low capability” boxes. Thus, we have fashioned the Proposal to maintain competition in this market segment, consistent with the mandate of Section 629. Retail products should compete on a level playing field with leased products with respect to price, features, and functionality. Accordingly, we propose that competitive manufacturers have the option, but not the obligation, to include OCAP in devices that access “basic” interactive services -- switched digital, electronic program guide (“EPG”), video-on-demand (“VOD”), and impulse pay-per-view (“PPV”) -- and may implement OCAP to access “advanced” interactive services -- perhaps on-line games, email and “play-along” interaction coordinated with specific video content. Rather than absorbing all the cost and uncertainty associated with OCAP, competitive manufacturers would be permitted to offer functionally equivalent bi-directional products that build on existing digital cable compatibility technologies.

If implemented, the Proposal would give every competitive manufacturer the freedom to develop and deploy its own user interface, if it so chooses, and the flexibility to innovate in the areas of navigation, parental controls, accessibility to users with disabilities, use of consumer-produced content (*e.g.*, home movies, digital photos), and interaction with third-party applications (*e.g.*, television ratings services). A competitive market for bi-directional devices would finally offer families a choice of user-friendly devices to better navigate the 500-channel universe, and, we believe, ultimately will be in the best interests of all concerned.⁴

³ See *In the Matter of Comcast Corporation’s Request for Waiver of 47 C.F.R. § 76.1204(a)(1)*, Request for Waiver, CSR-7012-Z, CS Docket No. 97-80 (April 19, 2006) (“*Comcast Waiver Request*”); *In the Matter of Charter Communications, Inc. Request for Waiver of 47 C.F.R. § 76.1204(a)(1)*, Request for Waiver, CSR-7049-Z, CS Docket No. 97-80 (July 14, 2006) (“*Charter Waiver Request*”).

⁴ Moreover, the approaching digital television (“DTV”) transition provides compelling reasons to encourage competitive entry at this time, in order to serve consumers who will be exploring all of their service and

We believe that the Proposal promotes not just the interests of consumers and competitive manufacturers, but those of cable providers as well, since it will allow consumers to access interactive cable services without leasing a separate, inconvenient and perhaps confusing set-top box and associated remote control. Moreover, we believe that, if implemented, the Proposal would further the DTV transition by increasing the pool of available cable-ready devices, thus giving consumers an incentive to move from analog to digital.

CONSUMER-FRIENDLY PRINCIPLES FOR TWO-WAY PLUG AND PLAY

As noted previously by CEA, the regime imposed by the mandated Cable Host Interface Licensing Agreement (“CHILA”) and the OCAP Implementers License Agreement (“O-ILA”), unnecessarily hinders competition and denies consumers the benefits of choice and innovation.⁵ In an effort to remedy these shortcomings, the Proposal focuses on five consumer-friendly principles that we believe are essential to any fair and effective two-way plug-and-play regime:

1. **Safeguarding Consumer Choice and Competition.** Consumers should be able to view, move, store, and access cable content that they legally obtain without restriction, other than as necessary to protect theft of service, electronic or physical harm to the network, and in accordance with reasonable content protection requirements.⁶
2. **Protecting Consumer Investment.** Consumers have a right to expect that the digital cable ready products that they purchase will continue to operate as expected for a reasonable period of time. To ensure that a purchased device fulfills this expectation, and prevent consumer purchases from becoming disadvantaged, inoperable or prematurely obsolete, requires that the device and the service received by it must remain consistent throughout the life cycle of the product.
3. **Establishing Fair and Open Technical Standards.** Bi-directional digital cable compatibility and related specifications should be developed and approved by a mutually agreeable standards-setting body, with oversight by the Commission.⁷

device options in a new, fully digital environment. Although this transition is likely to work to the benefit of cable operators who offer a relatively simple solution for the replacement of analog broadcasts, such a solution should not limit the device options available to consumers.

⁵ See, generally, Consumer Electronics Appendix to Joint Status Report, Letter from Neal M. Goldberg, General Counsel, National Cable and Telecommunications Association, and Julie M. Kearney, Senior Director and Regulatory Counsel, Consumer Electronics Association, to Marlene H. Dortch, Secretary, Consumer Electronics Association, CS Docket No. 97-80 (Nov. 30, 2005).

⁶ As determined by the Commission on September 18, 2000, applicable licenses may include some reasonable provisions with respect to copy protection. See *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 15 FCC Rcd 18199, 18210-11 (2000).

⁷ In its October, 2003 Further Notice of Proposed Rulemaking, the Commission raised the subject of assuring the fair administration of the technical regimes that support competitive entry. See *Implementation of*

4. **Requiring a Level Playing Field.** Only equivalent product functionality and common reliance on the same services, applications, and support infrastructure will create an economic incentive for cable operators to support the technology necessary for CE products.
5. **Removing Barriers to Innovation.** As with one-way products and DFAST, manufacturers should be allowed after initial certification to self-certify that their products are compliant with the applicable standards.

Each element of the Proposal is based on one or more of these consumer-friendly principles, all of which are derived from the congressional mandate of Section 629. Whether a two-way plug and play regime is unilaterally licensed by cable, mutually agreed upon by cable and CE, or adopted by the Commission, we submit that it will not be effective or fair unless it embraces these principles.

PROPOSAL TO BRING TWO-WAY DEVICES TO MARKET

As is explained in greater detail below, we propose that competitive manufacturers, like cable providers, be permitted to offer products that do not rely on OCAP to access basic interactive services, such as switched digital,⁸ VOD, and PPV. A device may, however, use OCAP to access all interactive services, at the manufacturer's option. Manufacturers can build devices that allow access to basic interactive services without the use of OCAP through changes to the existing CableCARD POD-Host interface standard, or via software if the cable industry is able to deploy, as promised, software-based conditional access. To the extent the Commission requires inclusion of OCAP in any CE devices, cable operators should be required: 1) to deploy

Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, 18 FCC Red 20885, 20921-22 (2003).

⁸ The issue of "switched digital" service deserves particular attention. First, for the sake of simplicity only, the Proposal classifies switched digital content as "interactive," even though consumers observe no interaction with the cable network when accessing it. Indeed, to clarify, switched digital content might properly be classified as "bi-directional," but it is plainly not interactive.

Further, as the record shows, cable operators are migrating channels of video programming to a switched digital delivery scheme. *See* Letter from Steven N. Teplitz, Time Warner Cable, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, (May 11, 2006). If cable had not implemented switched digital in a manner that disenfranchised consumers from the programming they had reasonably expected to receive with their UDCPs, we would, of course, support this and all such efforts by cable to increase the efficiency of their networks.

Present unidirectional digital cable ready ("UDCR") devices, however, cannot receive services with an interactive component, like switched digital, and consumers cannot know upon purchase of a UDCR that some linear programming may become unavailable in the future. If cable operators continue to migrate channels to switched digital, UDCR customers will continue to lose programming or be forced to switch to a leased set-top box, which ultimately will discourage consumers from purchasing devices at retail, as they can no longer expect to receive all the programming that they receive on the day they bring the device home. Switched digital thus directly undermines CE efforts and Commission action. We recognize that it is not possible to fix UDCRs that are already in consumer homes and that it may not be an effective allocation of cable or CE resources to spend significant time addressing the UDCR/switched digital issue. Instead, the Commission should limit MSOs' ability to migrate programming to switched digital until CE manufacturers have the capability to build and sell devices that can handle switched digital. This is the only fair result for consumers, and will encourage cable to move quickly on two-way.

OCAP on all cable headends nationwide by a date certain; 2) to incorporate the same version of OCAP in a substantial percentage of their equivalent leased boxes; and 3) should not be permitted to modify OCAP, or to discontinue support and use of OCAP, unilaterally.

Non-OCAP Approach for Basic Interactive Services

Under this Proposal, manufacturers would have the option to make a non-OCAP device equivalent to those devices for which Comcast, Charter, and BendBroadband have requested waiver relief. A consumer seeking only basic interactive video services would have a choice between a low-cost, limited-capability set-top box leased by the cable operator, with linear programming and other cable services delivered with the look and feel of the cable operator's choosing, or an integrated DTV or other innovative device utilizing a native user interface, or one substantially similar to the user experience defined by the cable provider, that would not cost significantly more than a TV without any built-in navigation features.

We agree with Comcast and Charter that the upcoming hard date for the DTV transition will create a need for affordable devices that allow access to basic interactive services,⁹ either through a proprietary set-top box, a retail integrated navigation device or a personal computer ("PC"). Therefore, competitive entrant manufacturers should be permitted to sell devices that offer access to the same basic interactive services, but do not include OCAP. Manufacturers, while valuing the opportunity to compete in the OCAP marketplace, seek this flexibility for the same cost and simplicity reasons that operators and their device vendors do. Competitive navigation devices, although integrated into a DTV or PC housing, are effectively substitutable for the "low-cost, limited capability" set-top boxes that cable operators have proposed to offer. Accordingly, to the extent cable operators are permitted to lease limited-capability boxes with integrated security and navigation functionality (*i.e.*, that are not subject to the Commission's common reliance requirement), and which do not include OCAP, competitive manufacturers should be permitted to sell devices that offer access to the same basic interactive services, and also do not include OCAP.¹⁰

This non-OCAP approach builds on the existing DFAST technology and interface standards already being used by today's unidirectional digital cable ready devices ("UDCRs"). It

⁹ See *Comcast Waiver Request* at 14; *Charter Waiver Request* at 13-14. Although the Commission previously considered the ability to display "high-definition" ("HD") programming to be an "advanced capability[]" for set-top boxes, *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6814 (2005), numerous legislative, technical, and business developments in the past 20 months suggest that the ability to display HD programming is a basic, rather than advanced, functionality. High-definition programming is a critical component of the DTV transition. See, e.g., *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 21 FCC Rcd 2503, 2508, 2511-12, 2525-26, 2531 (2006).

¹⁰ If the Commission decides to require inclusion of OCAP in all retail bi-directional devices, it should do so only consistent with the principle of common reliance. Cable operators should be required to use the same version of OCAP in their proprietary devices and support that version of OCAP in their headends until such regulation is amended by the FCC. We prefer the option of a non-OCAP approach, because a requirement to include OCAP in all retail devices would impose significant and unnecessary costs and design restrictions on interactive digital cable ready products.

would require a conditional access element with sufficient processing power and memory to operate both proprietary conditional access software and service-specific functionality. The host device would include other necessary non-proprietary hardware for communication from the device back to the cable operator. The conditional access element would communicate the A/V output to the host device in an open, standardized, and theft-protected communications format, akin to the format currently used by CableCARD to communicate to a host device.

This non-OCAP approach could function with either a hardware-based conditional access technology like today's CableCARD, or a software-based technology. Indeed, a non-OCAP solution might deliver the best consumer, service provider and device manufacturer value if implemented in conjunction with an "open DCAS" solution like those proposed by other parties in this docket.¹¹

We support the Commission's efforts under Section 629 to bring two-way devices to the retail market as soon as possible. If a fair and feasible software conditional access regime can be adopted and deployed in a reasonable period of time, the technological developments necessary to implement this Proposal can be completed simultaneously, consistent with the Commission's goals.¹² If cable cannot commit to deploying a downloadable solution nationwide by a date certain, or cannot commit to using this software conditional access technology in some substantial proportion of their proprietary devices, or if cable ultimately finds that it cannot deploy a software conditional access solution at all, we urge the Commission to move forward with a hardware approach based on the current CableCARD.¹³

The non-OCAP approach would minimize the burden on cable operators by incorporating existing open standards for interactive functionality already employed by many of cable's current equipment suppliers.¹⁴ It would require some additional development to standardize formats that would enable services that require bi-directional communication between the headend and the

¹¹ See *In the Matter of Verizon's Petition for Waiver of the Set-Top Box Integration Ban*, 47 C.F.R. § 76.1204(a)(1), Request for Waiver, at 27-33, CSR-7042-Z, CS Docket No. 97-80 (July 10, 2006).. In order for a software conditional access technology to succeed in competitive devices, it would need to be implemented through, at most, a secure, non-proprietary hardware requirement developed through open standards, and would require an independent third party, like Verisign, to hold the root authority that maintains ultimate control over all downloads. See also Comments of Dell Inc., Hewlett-Packard Company, Intel Corporation, and Sony Electronics Inc., Implementation of Section 304 of the Communications Act: Commercial Availability of Navigation Devices, Cable Industry Report on Downloadable Security, at 21-22, CS Docket No. 97-80, (Jan. 20, 2006) ("Computer Industry DCAS Comments"), detailing six modifications to cable's proposed DCAS regime that would be necessary to implement DCAS successfully for competitive device providers: 1) reasonable robustness standards, 2) renewable software, 3) limited and reasonable hardware specifications, 4) pre-adoption review of the specification, 5) self-certification, and 6) recognition of home networks.

¹² If the Commission endorses a software-based solution, it should require nationwide deployment of that solution by a date certain, and should also require a substantial percentage of proprietary devices to use the identical regime in order to ensure consumers the benefits of common reliance.

¹³ If the Commission adopts a hardware-based solution, it should also require a substantial percentage of proprietary devices to use the same hardware solution in order to ensure consumers the benefits of common reliance.

¹⁴ See Attachment A; Letter from Joel Wiginton, Vice President and Senior Counsel, Sony Electronics Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission (attachment) (Nov. 3, 2006).

consumer -- switched digital programming, delivery of VOD title offerings, and communication of user inputs for “trick play” pay-per-view functionality, such as fast forward and pause, for example. This standardization process could be accomplished quickly, because these elements merely extend the existing specification that governs the interaction between the host device and the conditional access technology (*i.e.*, the next-generation MS-CableCARD or a software-based technology).¹⁵

In addition to standardizing the necessary extensions to the current specifications for communicating between the conditional access technology and the host device, the conditional access technology would also have to be modified to allow the translation of program event and access data, for each content stream, from the proprietary and service-specific format in which it is delivered into a standardized and mutually agreeable format that a host device could recognize. This data would enable consumers to navigate through the available programming, and should allow the competitive device to identify program scheduling to the consumer over a period that is at least equivalent to that provided to leased devices. In addition, other metadata could be included to define the cable experience on the competitive device. This navigation data should be available to cable subscribers, for access through retail devices, without restrictions on use and at no additional charge.

As suggested above, the Proposal contemplates transition to a downloadable security regime, in that it can be effectuated through either a software-based solution or by modifying the hardware solution (*i.e.* CableCARD) available today.¹⁶ Under a downloadable security regime, a single chip could be physically soldered, in a secure manner, into the host device, or the security requirements satisfied through other robust approaches on multifunction devices.¹⁷ The use of a CableCARD solution would require a new version multistream CableCARD. This would not impact in any way the deployment of the current multistream CableCARD planned to be available soon for use by cable set-top boxes and OCAP-equipped digital cable-ready products.

¹⁵ In order for a non-OCAP approach to be implemented quickly and effectively, the two communications formats between the chip and the host device must be developed in an open process by a consortium of cable operators and device manufacturers and licensed on open and non-discriminatory terms.

¹⁶ As CEA and other parties have informed the Commission, the “DCAS” proposal previously submitted by NCTA, Implementation of Section 304 of the Communications Act: Commercial Availability of Navigation Devices, Report of the National Cable and Telecommunications Association on Downloadable Security, CS Docket No. 97-80 (Nov. 30, 2005), does not include sufficient information to allow CE manufacturers to evaluate its feasibility and identify specific concerns. *See* Comments of the Consumer Electronics Association, Implementation of Section 304 of the Communications Act: Commercial Availability of Navigation Devices, Cable Industry Report on Downloadable Security, at 5-7, CS Docket No. 97-80 (Jan. 20, 2006); Computer Industry DCAS Comments at 7. Nevertheless, we agree with the cable industry that some type of software-based conditional access is feasible and is preferable to a hardware solution. Given the type of chip we anticipate would be part of an effective and acceptable downloadable CA solution, we believe it is possible to use such a chip as the basis of a non-OCAP approach. If necessary, the Commission should request the cable industry to waive the non-disclosure agreement (“NDA”) requirements in order to allow affected parties to discuss the technical and implementation elements of the DCAS proposal.

¹⁷ *See* Computer Industry DCAS Comments at 6-7 (discussion of software-based downloadable conditional access).

OCAP Approach for Advanced Interactive Services

Under the Proposal, manufacturers and cable operators would include OCAP in navigation devices that access the full range of interactive cable services (*i.e.*, all bound and unbound OCAP applications). Such devices would support the cable user interface via OCAP and would also be permitted to support a CE user interface for unidirectional and basic interactive services. Certain changes to the existing OCAP specification, license, and test suite would be required in order to ensure the ability of competitive manufacturers to meaningfully differentiate their products, and to accommodate the multifunctional needs of those devices so as to remain comparable to a proprietary product.¹⁸ Further, it is critical that cable operators not have the ability to modify OCAP unilaterally. We propose that either the Commission's rules specify a particular version, and only that particular version, of OCAP (and not automatically authorize successor versions) or that the Commission requires the cable industry to permit all CE and IT companies to participate in the full range of activities associated with the OCAP development process.

Further, as is discussed below, to ensure the equivalence necessary to a competitive market, and to address other open issues in CS Docket No. 97-80, we propose that retail devices should: 1) be permitted to support the standard home networking outputs that have been approved by the Digital Lifestyle Network Alliance ("DLNA");¹⁹ 2) have access to the navigation data or metadata necessary to construct a native user interface and the right to move that data across a home network; 3) have testing and certification requirements that are no more burdensome than those for proprietary devices.

Home Networking. We believe that consumers today care, and in the future will care even more, about not just how content gets to a device, but also about whether and how they can transfer content out of the device and use it. Accordingly, and whether the host device includes or does not include an OCAP implementation, consumers should be allowed to save content to a DVR, to move content to a second or third TV, to a PC or to a portable device, subject only to the rules and limits set by the content provider and not subject to artificial and arbitrary limitations set by the cable operator. To this end, in addition to the output technologies already approved under the existing CHILA and DCAS licenses, we propose that the Commission direct CableLabs to immediately approve all output protection technologies approved by DLNA, including DTCP/IP and WMDRM.²⁰

¹⁸ These necessary changes are discussed in detail on [Attachment B](#).

¹⁹ DLNA is an open forum of companies interested in home networking -- its membership includes every major TV and PC manufacturer, Intel, Microsoft, various major content providers, and various service providers. DLNA-enabled devices are available today in Japan, and DTCP/IP enabled devices are shipping in the US today as well. Intel Viiv PCs support DTCP IP, as do a growing number of routers and digital media adapters in the growing IP based home network market. DLNA devices will increasingly ship in the U.S. market in the coming years, and U.S. consumers should be able to use those devices for cable content. In this context, it is important that provided that DLNA-approved technologies are permitted access to commercial cable content in the U.S.

²⁰ DTCP/IP is a link protection technology jointly developed by Sony, Intel, Panasonic, Hitachi and Toshiba; it ensures not only that protected content is encrypted when sent over a wired or wireless link, but that the device to which the content is delivered protects the content and limits its use consistent with the business rules set

Further, the Commission should require CableLabs to grant automatic approval to all other output protection technologies subsequently approved by DLNA. DLNA is committed to approving output protection technologies that protect commercial content consistent with the requirements of content providers.

The Commission should protect and encourage future innovation on the home network with a requirement that, consistent with the current DFAST and CHILA licenses, output protection technologies should be approved or not approved by CableLabs only on the basis of their ability to protect against physical harm to the cable network and the theft of cable service. To stimulate innovation and consumer choice in home networking, it should expressly prohibit quality of service requirements as a predicate to home network output approval. A competitive retail market with maximum consumer choice will deliver what consumers really want. Moreover, consumers will always have the option to lease a proprietary home networking solution from their local cable provider, lease additional proprietary set-top boxes, or purchase additional competitive navigation devices, to suit their needs.

Finally, the Commission should ensure that consumers who elect to lease a cable-proprietary set-top box are not arbitrarily cut off from the benefits of home networking. Accordingly, the Commission should require that cable providers offer consumers, upon request, a fully capable digital set-top box that exposes its services to a DLNA network.

Certification and Testing. We believe that device manufacturers and OCAP application providers (*i.e.*, cable providers) face market incentives that will help ensure that their respective products and services function properly and in line with consumer expectations. Accordingly, it is likely that market forces will encourage all parties to conduct extensive in-house testing of products and applications before sale or deployment to the public. This fundamental assumption about the impact of market forces should serve as the basis for any consideration of testing requirements on either side.

We acknowledge that, consistent with the existing DFAST license, cable providers have a legitimate interest in ensuring that retail interactive devices do not cause harm to the cable network or enable theft of cable services. Cable should not, however, be permitted to leverage

by the content provider. DTCP/IP contains technical means to prohibit Internet redistribution, and has been widely accepted by content providers (e.g., it is an approved output for DVD Video under the CSS rules, and HD DVD and Blu-ray Disk under the AACS rules). It is inexpensive easy to implement, and freely licensable. The developers of DTCP/IP requested in the spring of 2005 that CableLabs approve DTCP/IP under the DFAST and CHILA licenses; they are still waiting for that approval to be granted, notwithstanding that the Motion Picture Association of America ("MPAA") and its member companies have publicly supported this request.

Windows Media Digital Rights Management ("WMDRM") is Microsoft's technology for distribution and protection of audiovisual content on PCs, devices, and home networks. WMDRM is widely approved for protection of commercial audiovisual content including DVD Video under the CSS rules, HD-DVD and Blu-ray Disk under the AACS rules, and Cable Content in conjunction with the OpenCable Unidirectional Receiver under the CHILA rules. In addition to being part of the WindowsXP and forthcoming Windows Vista operating systems, it is available for license on devices.

this otherwise legitimate interest to prevent or delay arbitrarily the introduction of devices into the market. Accordingly, we propose that, as with DFAST, manufacturers be required only to submit an initial device to CableLabs for testing and certification, and be allowed to self-certify compliance by subsequent devices by demonstrating successful completion of a jointly developed test suite. Further, to ensure a level playing field, we propose that all interactive devices, retail or proprietary, should be required to pass an identical test suite, and that the testing requirements for retail devices should be no more burdensome than those for proprietary devices.

There is an additional consideration, however, in that device manufacturers have an equivalent interest in ensuring that operator-provided applications do not cause harm to or malfunctions of consumers' devices. Accordingly, though we do not intend that manufacturers be permitted to act as a gateway for restricting OCAP application deployment, we do propose a requirement that cable operators make available all new OCAP-based SD, EPG, VOD and PPV applications to manufacturers for testing no less than sixty days before widespread deployment, with a limited exception to this requirement for bona-fide field trials. Because interactive applications require communication with an upstream server, we propose that cable allow competitive manufacturers to test these new applications on live systems, or at a specially outfitted test lab that accurately reproduces a field environment, during that period. We believe that such a requirement will not unnecessarily hinder the development of new cable applications, and will give manufacturers an opportunity to identify and correct incompatibilities before they inconvenience consumers.

“Bug Fix” Path. Competitive devices should be permitted to use a cable-supplied software upgrade path equal to cable's upgrade path solely for bug fixes and cable-related functionality upgrades. Alternative methods, such as hardware or Internet-based solutions, would not be not prohibited or restricted.

CONCLUSION

We believe that this comprehensive Proposal, if implemented, will allow CE and IT manufacturers to compete fairly with cable providers for customers seeking access to interactive digital cable services, just as Section 629 envisions. Please address any questions to the undersigned representatives of the Consumer Electronics Association.

Sincerely,

/s/ Michael T. Williams

Michael T. Williams
Executive Vice President,
Secretary & General Counsel
Sony Electronics Inc.

/s/ Brian Markwalter

Brian Markwalter,
Vice President, Technology & Standards

/s/ Julie Kearney

Julie Kearney
Senior Director and Regulatory Counsel
Consumer Electronics Association

/s/ Kevin Kettler

Kevin Kettler, PhD.
Chief Technical Officer
Dell Inc.

/s/ Kazuhiro Kaizaki

Kazuhiro Kaizaki
President & CEO
Hitachi Home Electronics (America), Inc.

/s/ Donald M. Whiteside

Donald M. Whiteside
Vice President
Technical Policy and Standards
Intel Corporation

/s/ Shigeharu Tsuchitani

Shigeharu Tsuchitani
Chairman and CEO
JVC Americas Corp.

/s/ Blair Westlake

Blair Westlake
Vice President
Media, Content & Partner Strategy
Microsoft Corporation

/s/ David Naranjo

David Naranjo
Director, Product Development
Mitsubishi Digital Electronics America, Inc.

Marlene H. Dortch
November 7, 2006
Page 12

/s/ Thomas B. Patton

Thomas B. Patton
Vice President, Government Relations
Philips Electronics North America Corp.

/s/ Tsutomu Haga

Tsutomu Haga
Chairman and CEO
Pioneer North America, Inc.

/s/ Craig K. Tanner

Craig K. Tanner
Vice President, Cable Business Development
Sharp Laboratories of America

/s/ Akio Ozaka

Akio Ozaka
President and Chief Executive Officer
Toshiba America Consumer Products, LLC

/s/ Gregory Bosler

Gregory Bosler
Executive Vice President
North America Regional Business Center
TTE Corporation

Attachments

cc: Heather Dixon, Legal Advisor to Chairman Martin
Jessica Rosenworcel, Legal Advisor to Commissioner Copps
Rudy Brioché, Legal Advisor to Commissioner Adelstein
Chris Robbins, Legal Advisor to Commissioner Tate
Cristina Chou Pauzé, Legal Advisor to Commissioner McDowell
Catherine Bohigian, Chief, Office of Strategic Planning
Krista Witanowski, Office of Strategic Planning
Donna Gregg, Chief, Media Bureau
Rosemary Harold, Deputy Chief, Media Bureau
Andrew Long, Associate Chief, Media Bureau
Mary Beth Murphy, Chief, Policy Division, Media Bureau
Steven Broeckert, Deputy Chief, Policy Division, Media Bureau
Brendan Murray, Policy Division, Media Bureau
John Wong, Chief, Engineering Division, Media Bureau
Michael Lance, Deputy Chief, Engineering Division, Media Bureau
Alison Greenwald, Engineering Division, Media Bureau