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

In the Matter of	)	
Implementation of Section 304 of the Telecommunications Act of 1996	)	**CS Docket No. 97-80**
Commercial Availability of Navigation Devices	)	
Compatibility Between Cable Systems and Consumer Electronics Equipment	)	**PP Docket No. 00-67**

COMMENTS OF AT&T INC.

Lynn R. Charytan
William R. Richardson, Jr.
Jack N. Goodman
WILMER CUTLER PICKERING
HALE AND DORR LLP
1875 Pennsylvania Avenue, NW
Washington, DC 20006
(202) 663-6000

Christopher M. Heimann
Gary L. Phillips
Paul K. Mancini
AT&T Inc.
1120 – 20th Street, NW
Washington, DC 20036
(202) 457-3052

Counsel for AT&T Inc.

August 24, 2007

TABLE OF CONTENTS

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

In the Matter of	)	
Implementation of Section 304 of the Telecommunications Act of 1996	)	**CS Docket No. 97-80**
Commercial Availability of Navigation Devices	)	
Compatibility Between Cable Systems and Consumer Electronics Equipment	)	**PP Docket No. 00-67**

COMMENTS OF AT&T INC.

AT&T Inc. ("AT&T") respectfully submits these comments in response to the Third Further Notice of Proposed Rulemaking ("Notice") recently issued in the above-referenced docket.[1]

Introduction and Background

Section 629 of the Communications Act, 47 U.S.C. § 549, directs the Commission to "assure the commercial availability" of the equipment consumers need to access multichannel video programming services. The Notice, for the first time in this long-running proceeding, asks how and when this goal, including bidirectional functionality, should be achieved for all multichannel video programming distributors ("MVPDs"), including new wireline video providers.

[1] Third Further Notice of Proposed Rulemaking, *Implementation of Section 304 of the Telecommunications Act of 1996*, FCC 07-120 (released June 29, 2007).

In answering that question, the Commission should not stray from the principles it has long understood govern its Section 629 decisions. First, it should recognize, as it did with Direct Broadcast Satellite ("DBS") systems, that there is – at least at this point – no "one size fits all" solution for all MVPD systems and, therefore, allow for different solutions for different technologies. And, as with DBS providers, Internet protocol video providers are new entrants in the video market who are bringing additional choices to consumers and have the incentive to create a viable market for navigation devices. Second, "industry standard-setting organizations" must – as Congress expected – take the lead in developing common standards. Third, the Commission should only intervene in that process if the industries are not making progress. And fourth, even then, the Commission must be careful to ensure that any action it does take does not deter the statutory objectives of "the development or introduction of a new or improved multichannel video programming or other service" or "jeopardize security of multichannel video programming and services." Finally, while there may be issues on which providers and manufacturers disagree about how new video distribution systems should function, Section 629 does not make the Commission the arbiter of all disputes between MVPDs and consumer electronics manufacturers; rather, it authorizes the Commission only to work with industry to permit retail navigation devices to be developed. Congress gave the Commission no power to regulate all of the features and designs of video services or consumer equipment.

The Commission has long emphasized that it is generally appropriate to "leave [ ] to the industry groups and the market the ability to evolve standards outside of the Commission's rules."[2] The Commission may well determine that, in light of the years of impasse on

[2] Report and Order, *Implementation of Section 304 of the Telecommunications Act of 1996,* 13 FCC Rcd 14775 ¶ 72 (1998) ("*First Report and Order*").

bidirectional standards for digital cable systems, it is now necessary to depart from its general policy in that context – or at least that it is now appropriate to provide additional incentives to speed up the negotiation process. But the current state of negotiations between IP video providers such as AT&T and the consumer electronics industry already reflects a very different picture, even at this nascent stage of IP video technology.

The Commission should also pay heed to the warning of the authors of Section 629 to "avoid actions which could have the effect of freezing or chilling the development of new technologies and services."[3] That warning has special force in the context of the advanced telecommunications capability offered by AT&T's new service, whose deployment the Commission is charged with a mandate to promote through "regulating methods that remove barriers to infrastructure investment."[4]

In the Notice, the Commission asks a number of questions concerning whether additional rules are necessary to ensure bidirectional compatibility between cable television systems and consumer electronics equipment. The Commission notes the continued inability of cable incumbents, and their CableLabs joint venture, to reach agreement with the Consumer Electronics Association ("CEA") on technical standards for either a bidirectional separate security device or a downloadable security system. Those industries agreed in 2002 on standards for "digital cable systems" that eliminated the need for set-top boxes in order to receive *one-way* digital cable programming, and they thereafter requested that the Commission codify that

---

[3] *First Report and Order* ¶ 16 & n.23, *quoting* S. Conf. Rep. 104-230 at 181 (1996). As the conference report further noted, ". . . in implementing this section, the Commission should take cognizance of the current state of the marketplace and consider the results of private standards setting activities." *Id. See also* 47 U.S.C. § 157(a) ("policy of the United States to encourage the provision of new technologies and services to the public").

[4] 47 U.S.C. § 157 note (a).

agreement in its rules, which it did (with certain modifications).[5] However, the cable and consumer electronics industries apparently remain at odds on how to expand those standards to eliminate the need for such boxes for the many subscribers that desire *two-way* services. As a result, the Notice now seeks comment on each industry's separate proposal with respect to such two-way standards for "digital cable systems." Notice ¶¶ 8-11.

Although the Notice is largely focused on the Commission's ongoing and longstanding efforts to ensure that Section 629 of the Act is implemented by the cable industry, the Notice also raises new questions about whether any two-way standards that it may adopt in this proceeding for cable systems should be extended to all MVPDs, "including DBS and wireline video providers," or whether there are technical limitations to such an approach. Notice ¶ 13. If there are such limitations, it seeks comment on "other approaches" by which "non-traditional cable operators and other MVPDs could achieve bidirectional compatibility between their systems and consumer electronics equipment." *Id.*

AT&T's comments are limited to the application of Section 629 to video distribution systems using a pure Internet protocol distribution technology ("IPTV" or "IP video"). The Commission should certainly not, given the immense technical differences between the way video is delivered over IPTV systems from the way it is delivered over digital cable systems, require IPTV systems to deploy security technology developed by and for cable systems. Further, in applying Section 629 and its goal of achieving commercial availability of navigation devices to IPTV systems, the Commission should acknowledge several significant differences between nascent IPTV and existing cable systems:

[5] Second Report and Order and Second Further Notice of Proposed Rulemaking, *Implementation of Section 304 of the Telecommunications Act of 1996*, 18 FCC Rcd 20885 (2003) ("*Plug and Play Order*").

- Unlike incumbent cable systems, IPTV providers are entering the MVPD market as new competitors. In order to compete, they have compelling incentives to provide a better customer experience, including more choices, lower costs, better service, and compatibility with consumer equipment.
- The cable industry, by contrast, has grown up with proprietary industry-centric standards and the provision of set-top equipment has been a significant part of its business plan. AT&T has no interest in becoming the exclusive supplier of equipment for its video service. There is no reason to believe that IP video providers will exhibit the same reluctance to enable consumer availability that the Commission has experienced with cable operators and their suppliers.
- AT&T already is engaged in standards development with the consumer electronics industry, has agreed with manufacturers and others on guiding principles, and is working on two paths for consumers to be able to purchase equipment to be used with AT&T's system.
- AT&T's system, in which the security functions are performed at the network level and which is inherently bidirectional and interactive, is much closer to achieving Congress' goals in Section 629 than digital cable systems.
- Indeed, the choice to use Internet protocol as the foundation for AT&T's system itself works to better enable interconnection. The IP marketplace is dynamic. Neither AT&T, nor any other provider, has the ability – or even the incentive – to prevent others from developing IP video products. This contrasts with the incumbent cable industry, which has monopolized standards development in one entity – CableLabs.
- Moreover, IPTV technology is less mature than cable technology. Thus, a retail market for devices compatible with IPTV systems cannot be developed instantly. AT&T and other IPTV providers are still experimenting with different technologies and there are yet many distinct issues to be worked out among IPTV providers, developers of middleware at both the network and set-top levels, and consumer electronics manufacturers concerning both the operation of IPTV systems and their interface with consumer equipment.

These factors should lead the Commission to conclude that, unlike cable systems where regulations were needed to ensure that consumers could purchase compatible equipment, IPTV systems are likely – without government intervention – to evolve towards standards that permit commercial distribution of navigation devices.

I. IT WOULD BE IMPRACTICABLE TO EXTEND ANY BIDIRECTIONAL STANDARDS ADOPTED FOR DIGITAL CABLE SYSTEMS TO WIRELINE VIDEO SYSTEMS EMPLOYING COMPLETELY DIFFERENT TECHNOLOGIES.

Like the one-way standards that were the subject of the cable and electronic industries' prior agreement and the *Plug and Play Order*,[6] the two-way proposals advanced by NCTA and CEA both apply only to "digital cable systems," i.e., cable systems using QAM modulation.[7] Neither AT&T nor any of its predecessors participated in the discussions leading to the one-way standards agreement codified in the *Plug and Play Order*, which was contemplated as the first step in an ongoing process.[8] Indeed, Ameritech New Media noted in 1998 that its "repeated requests for membership in CableLabs have been rejected."[9] BellSouth, one of AT&T's predecessors, also complained about the "back room" environment in which cable standards have been developed.[10]

Since that time, AT&T and its predecessors have entered into agreements with EchoStar and DIRECTV to provide subscribers with a DBS alternative to cable service. AT&T has also begun to deploy a wholly different wireline video service, known as U-verse, which provides digital video on an interactive basis using a pure Internet protocol and makes no use of QAM modulation. Accordingly, AT&T has not sought to participate in the ongoing two-way

---

6 *See Plug and Play Order* ¶ 14; 47 C.F.R. § 76.640(a) (defining "digital cable systems" as "a cable system with one or more channels utilizing QAM modulation for transporting programs and services from its headend to receiving devices).

7 NCTA's Exhibit B, which indicates the changes to the rules that it proposes under its approach, continues (at page 6) to use this same definition of "digital cable systems." While CEA does not include specific proposed rule changes, its Attachment A proposes changes to Section 76.640 that do not affect this existing definition.

8 Further Notice of Proposed Rulemaking, *Implementation of Section 304 of the Telecommunications Act of 1996*, 18 FCC Rcd 518 ¶ 2 (2003).

9 Comments of Ameritech New Media, Inc. on Petitions for Reconsideration at 10 (Sept. 23, 1998). *See also* Order on Reconsideration, *Implementation of Section 304 of the Telecommunications Act of 1996*, 14 FCC Rcd 7596, 7615 n.112 (1999) (citing contentions of Ameritech and WCA).

10 Comments and Opposition of BellSouth Entertainment, LLC at 3-4 (Feb. 25, 2004).

negotiations between the cable incumbents and CEA, and it is not in a position to comment on the respective merits of the two proposed approaches addressed in the Notice. However, as with DBS technology, the completely different technologies employed in AT&T's U-Verse service make it impracticable to apply to that service any standards developed for digital cable systems.[11]

Moreover, the concerns expressed in the Notice about the continued lack of progress in the two-way digital cable standard negotiations are inapplicable with respect to U-verse. In contrast to existing digital cable systems, U-verse is an inherently interactive and bi-directional service. It sends video programs to consumers only upon their specific request. And in doing so, AT&T's system does not center its security functions in the set-top device, but rather at the network level. New IP video systems like U-verse thus function already in a way that is far more compatible with the objectives of Section 629 (and the Commission's goal of separating security from navigational functions) than the systems now deployed by the cable incumbents.

As noted above, the *Plug and Play Order* adopted an agreement between the cable and consumer electronics industries that applied only to "digital cable systems," and the respective proposals currently under consideration for bidirectional standards also apply only to "digital cable systems." Quite apart from the unfairness of applying to other MVPDs an extensive set of standards that have been developed over the course of many years without their participation,[12] it would be technically infeasible to impose these QAM-based standards on very different wireline video systems using switched IP as their underlying technology.

---

[11] *First Report and Order* ¶ 65.

[12] The Commission has repeatedly noted concerns about the problem, raised by Ameritech in 1998 and repeated by BellSouth in 2004, that telephone and other companies providing video services have been excluded from participation in CableLabs, a joint venture of the leading cable MSOs which as the Commission has recognized has served as the manager of the OpenCable project. *First Report and Order* ¶ 14 & n.19. *See id.* ¶ 125; *Plug and Play Order* ¶¶ 83-85.

The conditional access function for digital cable systems is performed at the set-top. AT&T's IP video system instead relies on Internet protocol and uses middleware at the network level to perform navigational and security functions. OCAP, which forms the basis of both the NCTA and CEA proposals for bidirectional cable systems, performs some, but not all, of the functions that different middleware performs in the U-verse and other IPTV systems. Mandating an OCAP-based standard would require a complete redesign of AT&T's system. Further, in cable systems, digital rights management ("DRM") functions are separate from navigation, reflecting the fact that content is distributed continuously to cable set-top boxes ("STBs"). In IPTV systems, the middleware that controls navigation is tightly integrated with DRM.

Not surprisingly, neither of the proposals presented to the Commission for digital cable systems addresses IP technology, and the Commission should not, regardless of any impatience it may feel with respect to the pace of standards development for *cable*, try to force the square peg of IPTV into the round hole of digital cable standards. Doing so would effectively end much of the technical development now going on with IPTV which, in contrast to the cable situation, is the subject of discussions among a much wider variety of participants, under a much more open and transparent process relying on traditional standards setting organizations.

II. IT WOULD BE PREMATURE FOR THE COMMISSION TO IMPOSE ANY GENERIC SET OF STANDARDS ON IP-BASED WIRELINE VIDEO SERVICES.

In light of the unique and complex features of the wireline video service being developed by AT&T, Microsoft and others,[13] it would also be inappropriate for the Commission to craft generic bidirectional standards that would apply to the U-verse system, or to IP video services

[13] The suppliers for the U-verse system include, in addition to Microsoft, Scientific Atlanta, Motorola, Alcatel, Hewlett Packard, Sun Microsystems and others. While U-verse service is now being delivered to subscribers, the massive undertaking of developing a comprehensive IP-based means of delivering video to subscribers combining the work of these various vendors continues to evolve.

being developed by other providers, and much less to "all MVPD networks, whether traditional cable, satellite or telephone." Notice ¶ 13. The Commission has recognized from the outset of its implementation of Section 629 that "MVPDs in general have little standardization either among different types of MVPDs or among MVPDs using the same distribution technology."[14]

In adopting regulations in the *Plug and Play Order* that established technical specifications just for QAM digital cable systems and digital television receivers, the Commission was simply endorsing (with minor modifications) a compromise agreement already negotiated between the cable and consumer electronics industries. The years of delays in negotiating an extension of those standards to bidirectional services may or may not now warrant Commission intervention in the context of digital cable systems. However, it is only recently that IP video networks have even been deployed. Any attempt to impose a generic solution on *all* MVPDs (as recently suggested by NCTA) would be completely impracticable,[15] but the same is true at this nascent stage even with respect to all IP video networks. IP video providers are just beginning to address a raft of technical standards questions, including audio and video encoding standards, downstream and upstream data standards, and applications standards. Standards development will also require addressing a host of different vendors for each of the critical components of IP video systems – DRM, client middleware, and network middleware.[16]

It is far too early to preempt marketplace resolution of these questions at this preliminary stage of development. In these circumstances, departing from the Commission's established

---

[14] *First Report and Order* ¶ 128.

[15] *See* Notice ¶ 13 & n.28, citing Letter from Neal M. Goldberg to Marlene Dortch, June 5, 2007. NCTA's letter vaguely asserts that an "approach that is being explored" is an "enhanced separated security device" that "puts MVPD technology into a small device . . . supplied by the MVPD." *Id.* at 4. NCTA does not identify who is exploring such an idea, how it would work, or how far the exploration has progressed. AT&T is unaware of any such device or of any discussions concerning an all-MVPD security solution.

[16] For DRM, these include Widevine, Verimatrix, NDS and Microsoft along with several others For client middleware, they include Microsoft, Opera and Motorola, among others; and for network middleware, Siemens, Microsoft, Alcatel-Lucent, Ocra Interactive, Tandberg Television, Minerva, Inforgate, Kasenna, Alticat, and NDS.

policy of "leav[ing] to the industry groups and the market the ability to evolve standards outside of the Commission's rules"[17] would run the serious risk of impeding the development of new technologies and services.

Taking that risk is certainly not merited given that there is no reason to assume that Commission intervention is *necessary* to ensure the retail availability of IP video navigational devices. As new entrants in the video delivery marketplace, IPTV providers like AT&T have strong incentives to make their services attractive to consumers in every way possible. One of the ways in which these new providers can distinguish their offerings from those of the entrenched incumbents is to enable greater consumer choice in STBs and other navigation devices. Permitting these new technologies to develop will result in beneficial innovations and options for consumers that are not now provided by incumbent cable operators.

Indeed, there is already evidence of such developments. Even before launching U-verse, AT&T began meeting with CEA to address the question of navigational device availability. Its efforts have included both discussions about U-verse in particular as well as active participation in industry groups to develop IP video standards on a more generic basis. In March 2006, CEA announced – together with AT&T, BellSouth, and Verizon – agreement on a series of five principles designed to achieve the goal of Section 629 (i.e., "to ensure the commercial availability of devices that attach") with respect to IP-enabled video networks.[18] These principles served as an important first step in establishing an open and collaborative framework to resolve the complex and varied technical issues associated with the development of IP video networks. They include a goal of sufficient nationwide compatibility, in light of "technical and

---

[17] *First Report and Order* ¶ 72.

[18] A copy of the joint press release announcing these principles is attached to these comments as Attachment A.

economic realities" involving differences in telephone company networks, to enable "CE manufacturers to design products in a cost-effective manner."[19]

Of course, these general principles are only a beginning. CEA also established an IPTV Oversight and Coordination Committee ("OCC"), chaired by representatives of AT&T and Hitachi, that includes more than 60 participants representing content, broadcasting, IP network, CE, software, and hardware firms.[20] The OCC has been convening regularly (mostly by phone or the web) to pursue implementation of these core principles. It has established specific task groups devoted to identifying functional requirements for each use of the network, creating needed terms, surveying digital rights management and content protection requirements, and identifying consumer expectations. In June, a report, the Roadmap and Phase 2 Report,[21] was published by the OCC, including comments from the participating parties. The OCC is not a standards-setting body, but has established formal liaisons to established standards bodies to ensure that IPTV standards it develops are formally adopted. Among the eight organizations that are now actively working on development of the relevant standards under the OCC framework are the Alliance for Telecommunication Industry Solutions ("ATIS"), the Universal Plug and Play ("UPnP") Forum, the Digital Living Network Alliance ("DLNA"), and Digital Video Broadcasting ("DVB"), an international standards body.

Negotiations on technical standards for IP video networks have advanced significantly in a relatively short time period. AT&T, other IPTV providers and suppliers, and consumer electronics manufacturers are exploring two non-exclusive options: a common set of home networking standards, and a set of common protocols for IPTV equipment, including STBs or

---

19 Attachment A at 2.

20 Attachment B includes a full list of the participating companies..

21 http://www.ce.org/Resource.aspx?ID=2553.

IPTV-ready television receivers. CEA is developing a home networking proposal as a direct result of this process. And other options for facilitating STB availability could emerge during these ongoing discussions.

In addition to working directly with the CE industry, AT&T's middleware, DRM and software provider – Microsoft – is working on an OEM Adaptation Kit ("OAK"), that would allow third parties to build STBs or television receivers that will work with any Microsoft-enabled IPTV network. This process includes developing the needed specifications from Microsoft, the appropriate equipment certification process, and the operational support systems enhancements AT&T may need to make to support retail availability. If these standards discussions come to fruition, consumer electronics manufacturers will be able to offer consumers either a Microsoft-based design that directly ports the capabilities of U-verse and other Microsoft-enabled networks into STBs or television receivers, or home networking products that operate with U-verse and similar services using a common home networking standard such as the one being developed by the DLNA.[22]

In significant contrast to the approach for digital cable systems criticized by CEA and various of its members,[23] the parties discussing IPTV issues have agreed to develop open standards (e.g., by ANSI-accredited bodies), with meaningful participation by all interested parties from the outset, consensus decisionmaking, due process rights to all participants, and open disclosure of all licensing terms. They are committed to reasonable and nondiscriminatory licensing terms, permitting the parties to include necessary technologies within their products.

---

[22] Although these industry discussions have included issues such as digital rights management and the consumer interface with IP video systems, those issues are beyond the scope of the Commission's statutory authority under Section 629. The Commission should be careful, in considering any proposals submitted in this proceeding, to limit any standards it endorses to the areas that the Communications Act allows it to regulate and to avoid becoming entangled in broader issues that are not essential to achieving consumer availability of navigation devices.

[23] *See* Notice App. B (CEA Proposal); *see also, e.g.*, Comments of CEA at 6 (Nov. 30, 2006); Comments of CEA on NCTA Downloadable Security Report at 5-7 (Jan. 20, 2006).

And they agreed to develop transparent testing and certification procedures as well as reasonable terms of service for consumers.

This promising start to the negotiations among AT&T, Microsoft, the consumer electronics industry, and other stakeholders in the OCC forum demonstrates that, in the context of IPTV, there is no basis for departing from the Commission's presumption, that it applied to DBS,[24] that regulatory intervention is unnecessary, because new video entrants have substantial incentives to pursue added market share through improved equipment options available to prospective subscribers. Indeed, whatever the case may be with the cable incumbents, AT&T has no interest in serving as the exclusive supplier of the set-top boxes used by its subscribers to access its service, whose key navigational functions are performed by servers at the network level. Rather, as the discussions to date demonstrate, AT&T's goal is to create a strong ecosystem of CE devices that attach to its IPTV services network, providing more value to its subscribers. And Microsoft, which developed the navigation and security software used in U-verse and also in other IP video systems, has an independent incentive to ensure retail availability of IP video functionality in television receivers and computers.

To be sure, the Commission has an obligation under Section 629 to "assure the commercial availability" of navigational devices used with AT&T's new service, and thus to monitor the progress of these negotiations to determine whether it may be appropriate to intervene at some point. However, a universal security system for all different types of MVPD service is not a feasible goal – at least at this early stage in the development of wireline video networks and services – and as the Commission recognized with DBS systems, the statute does not require it to follow a "one size fits all" approach. For IPTV systems, given the

[24] *First Report and Order* ¶ 65.

bidirectionality and separate network security functions already present in the U-verse system, the progress being made on IP video standards for two paths for retail equipment, and the incentives of suppliers to facilitate a retail environment, the risk of government intervention in the development of these standards at this early stage is entirely unwarranted. It would run a serious risk of impeding the development of this new competitive service. That risk would be fundamentally incompatible not only with the established policy of Congress and the Commission under Section 629 to promote new technology,[25] but also with the mandate imposed by Congress in Section 706 and the Commission's efforts under Section 621 to promote competition for cable incumbents.[26] In this context, the appropriate policy should be to rely on the general requirements of retail availability applicable to all MVPDs "and to evaluate how the efforts to comply with these mandates progresses,"[27] recognizing that the early stage of development of IPTV networks necessitates a different timetable than that applicable to digital cable systems.

[25] *Id.* ¶ 72. *See also id.* ¶ 34 (refusing to replicate part 68 approach of "more complete interface specification rules" at initial stage, where it is more appropriate for MVPDs to develop the standards); ¶ 70 ("we do not need to become involved, more than the minimal extent necessary, in the technical design of the interfaces involved"); ¶ 72 ("leav[ing] to the industry groups and the market the ability to evolve standards outside of the Commission's rules"); ¶ 117 ("emphasiz[ing] our reliance on market forces to bring innovation, choice and better prices to consumers"); ¶ 129 (concerns about the "stifling effect on technological and marketplace developments" of technical standards imposed by government).

[26] Report and Order and Further Notice of Proposed Rulemaking, *Implementation of Section 621(a)(1) of the Cable Communications Policy Act*, 22 FCC Rcd 5101 (2007).

[27] *First Report and Order* ¶ 132.

Conclusion

For the reasons stated above, the Commission should not seek to extend to non-QAM based MVPD services any bidirectional standards that it may impose on navigational devices developed for use with digital cable systems. Nor should it attempt to intervene at this early stage in the development of standards by AT&T, Microsoft, the consumer electronics industry, and others for use by U-Verse or similar services.

Respectfully submitted,

_____

Lynn R. Charytan
William R. Richardson, Jr.
Jack N. Goodman
Wilmer Cutler Pickering Hale and Dorr LLP
1875 Pennsylvania Avenue, NW
Washington, DC 20006
(202) 663-6000

Christopher M. Heimann
Gary L. Phillips
Paul K. Mancini
AT&T Inc.
1120 – 20th Street, NW
Washington, DC 20036
(202) 457-3052

Counsel for AT&T Inc.

August 24, 2007

Attachment A

For Immediate Release

Contacts:

Teri Rucker	Bill McCloskey	Jeff Joseph	David Fish
AT&T	BellSouth	CEA	Verizon
(202) 326-8853	(202) 463-4129	(703) 907-7664	(202) 515-2514
tjrucker@att.com	bill.mccloskey@bellsouth.com	jjoseph@ce.org	david.m.fish@verizon.com
www.att.com	www.bellsouth.com	www.ce.org	www.verizon.com

AT&T, BELLSOUTH, VERIZON AND CEA ANNOUNCE PRINCIPLES ON DEVICE ATTACMENT

Guidelines Are Designed to Facilitate Retail Market for Devices Attaching to IP-Enabled Video Services

Washington, D.C., March 15, 2006 – As telecommunications providers begin to launch video services for consumers nationwide, AT&T, BellSouth, Verizon and the Consumer Electronics Association (CEA®) today announced a series of principles designed to ensure the commercial availability of devices that attach to Internet Protocol (IP)-enabled video networks. The companies joined CEA in unveiling the principles at a press conference held during CEA's "Entertainment Technology Policy Summit" running March 15-16 in Washington, D.C.

"IP-enabled video networks will provide consumers across the nation with a revolutionary new way to access their favorite video programs when and where they want," said CEA President and CEO Gary Shapiro. "In order to realize the full potential of this brave new world, consumers must be able to choose from the exciting array of innovative new devices being developed by consumer electronics manufacturers that attach to IP networks to receive video programming. We believe these principles will provide solid guidelines and help support and environment in which IP video can flourish."

"AT&T is pleased to enter this agreement that promises to establish a framework between the consumer electronics manufacturers and Internet Protocol or IP-enabled video service providers to enable the commercial availability of devices that consumers can use in their home to watch IP-enabled video services," said Dorothy Attwood, AT&T senior vice president, regulatory planning and policy. "We look forward to bringing a new entertainment experience to our customers by delivering programming that consumers want while protecting the rights of our partners in the content community."

"As BellSouth continues to investigate IPTV, we are excited to endorse these principles," said Jonathan Banks, vice president, Executive and Federal Regulatory Affairs for BellSouth. "They lay the groundwork for consumer electronics companies to both innovate and bring equipment to consumers that will increase the value of the IPTV experience."

"This is a key step toward assuring consumers that the electronic devices they buy will work seamlessly with advanced, IP-enabled services now being designed and deployed, stated Susanne Guyer, senior vice president of Federal Regulatory Affairs for Verizon. "Industry leaders like Verizon are pushing ahead with the open standards needed to make this type of interoperability a reality. Consumers' interests are better served by voluntary marketplace efforts such as these rather than by government regulation."

###

Principles for the Attachment of Devices to IP-enabled Video Service Provider Networks

The Consumer Electronics Association (CEA), AT&T, BellSouth and Verizon agree that consumers will benefit if they have the flexibility to attach a variety of CE devices to video service networks and consumer home networks. To provide consumers this choice over video service networks using IP-enabled technology, we believe that the following framework should apply to facilitate the existence of a retail market for such devices:

1. Nationwide compatibility. We will strive to achieve nationwide compatibility enabling CE manufacturers to develop devices that will operate nationwide on IP-enabled video service networks. We acknowledge that technical and economic realities may preclude nationwide uniformity among all networks. Nonetheless, we believe it is possible for video service networks to include enough nationwide commonality for CE manufacturers to design products in a cost-effective manner that will operate nationwide and across IP-enabled service provider platforms. There are two non-exclusive options to meet the goal of nationwide compatibility. The first option, more readily achievable in the short term, is attachment in a home networking architecture on the consumer side of a service provider device. Home networking attachment requires all IP-enabled service providers to support a common and mutually agreed upon set of home networking

standards in leased equipment. Except to protect against electronic or physical harm to the network or unauthorized receipt of services, no technical specification, license, subscriber agreement, or other requirement should prevent consumers from accessing services across personal home networks. The second option is plug and play attachment directly to the IP-enabled network, which requires common protocols and standards for IP-enabled services as delivered to the consumer's home.[1]

2. Open standards. The use of open standards is critical so that CE manufacturers can play a role in the development of technologies necessary to build compatible devices. In this context an open standard is a standard developed in a forum that: (1) allows meaningful participation by all interested parties, (2) requires consensus (though not necessarily unanimous) decision making, (3) affords due process rights to all participants, and (4) openly discloses licensing terms which are at least reasonable and non-discriminatory. Standards created by ANSI-accredited bodies meet these criteria. An open standard does not necessarily mean a single national standard for attachments to IP-enabled video networks and may consist of a solution set of multiple standards that encompass a complete solution in a cost effective manner.

3. Reasonable licensing terms. To the extent that there are proprietary aspects to IP-enabled video service networks, reasonable and non-discriminatory licensing terms should be available so that both CE manufacturers and video service providers are not unreasonably constrained from including necessary technologies within their respective products in order to ensure that CE devices can be connected to IP-enabled video networks, consistent with the other principles outlined herein.

Further, licenses for these technologies should not impose unrelated or unnecessary burdens on licensees, such as the inclusion or exclusion of additional features in products that are separate from the features related to accessing the services provided by the service provider.

4. Reasonable testing and certification procedures. Reasonable testing and certification procedures should be established so CE manufacturers and IP-enabled video service providers can obtain necessary approvals for products and can bring products to market in a timely manner. Product testing and certification should be transparent and focused on ensuring that devices conform to the applicable specifications, do not cause electronic or physical harm to the video service networks, and do not enable unauthorized receipt of service.

5. Reasonable terms of service for consumers. Service terms and conditions should reasonably allow consumers to choose among various CE products to access their video services as long as such products do not cause electronic or physical harm to the network and do not enable unauthorized receipt of service. Subscriber agreements should allow the attachment of devices that meet the technical, licensing, and testing/approval criteria described herein.

---

[1] IP-enabled video service provider networks include but are not limited to end-to-end IP networks and/or hybrid QAM/IP networks.

Attachment B

Annex E: Liaison Matrix
as of 7/18/06

Group	Work in IPTV	Agreement	Information Provided
1. ARIB http://www.arib.or.jp/english/	Studying the state of the industry	Informal agreement	(expecting state of the industry summary report)
2. ATIS (IFF) http://www.atis.org/iif/index.asp	Developing standards for WAN and service provisioning, including attributes that convey across the in-home demarcation point	Formal agreement	ATIS-080002 *IPTV Architecture Requirements Document* ATIS-080001 *IPTV DRM Interoperability Requirements Document*
3. DLNA http://www.dlna.org/home	Developed home network architecture and end device behaviors that would accommodate IPTV services. Have a profiled device certification program.	Formal agreement	Use Case template and review process
4. DSL Forum http://www.dslforum.org/index.shtml	Standards for WAN delivery	Tracking their work	Various standards available on their website.
5. DVB (DVB-CM-HN Group) (DVB-TM-CPT Group) http://www.dvb.org/groups_modules/commercial_module/cmmhp.hn/index.xml?groupID=35	Broadcast and in-home network standards for the Europe.	Informal agreement	MHP-HN091R9 *DVB-HN Commercial Requirements Phase 1* DVB Content Protection and Copy Management (CPCM) standard for Home Network security DVB Blue Book A094 (DVB CPCM Standard)
6. HANA http://www.hanaalliance.org/	Promoting standards for home network architecture and end device behaviors that accommodate HDTV.	Informal agreement	---
7. HGI http://www.homegatewayinitiative.org/	Develop consensus of European telcos.	Interested in their work	---
8. ITU http://www.itu.int/ITU-T/IPTV/index.phtml	Investigating the need for global IPTV standards.	Interested in their work; Member of their Focus Group	---