Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20544

In the Matter of

Petition for Declaratory Ruling of the City of CSR-8127

Lansing, Michigan, on Requirements for a MB Docket No. 09-13
Basic Service Tier and for PEG Channel

Capacity Under Sections 543(b)(7), 531(a), and the Commission's Ancillary Jurisdiction

Under Title I

In the Matter of

Petition for Declaratory Ruling of Alliance for CSR-8126

Community Media, et al., that AT&T's MB Docket No. 09-13

Method of Delivering Public, Educational, and Government Access Channels Over Its

U-verse System Is Contrary to the

Communications Act of 1934, as Amended,

and Applicable Commission Rules

In the Matter of CSR-8128

Petition for Declaratory Ruling Regarding MB Docket No. 09-13

Primary Jurisdiction Referral in *City of Dearborn* et al. v. Comcast of Michigan III, Inc. et al.

COMMENTS OF AT&T OPPOSING PETITIONS FOR DECLARATORY RULING

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INTRODUCTION AND SUMMARY

The competition that Congress and this Commission have long sought to promote in the video marketplace is now finally beginning to emerge. The telephone-operating-company subsidiaries of AT&T Inc. (collectively, "AT&T") have spent billions of dollars to upgrade their legacy telephone networks to enable them to provide Voice over Internet Protocol ("VoIP") and Internet access services, as well as Internet Protocol ("IP")-based video service. AT&T now makes its video product — U-verse TV service — available in markets across its 22-state footprint and serves more than one million subscribers. AT&T's U-verse TV service is offered over an IP-based network that is different in design from cable systems and that allows AT&T to provide subscribers a unique, two-way, interactive viewing experience. This competition is bringing enormous benefits to consumers.

As part of its rollout of U-verse TV service, AT&T has committed itself to providing public, educational, and governmental ("PEG") programming. Indeed, AT&T is offering its subscribers the next generation of PEG programming notwithstanding the fact that AT&T is not a cable operator providing cable service — as those terms are defined in the federal Cable Act — and thus is not subject to any legacy PEG requirements. Because AT&T's PEG product is provided over AT&T's IP-based network, AT&T is able to offer subscribers more PEG programming and to afford municipalities and PEG programmers greater opportunities to provide PEG programming than are available with traditional cable systems.

AT&T does not, however, provide PEG programming in the same manner as do cable companies. AT&T's IP-based network, unlike traditional cable systems, is not structured technologically to enable AT&T to insert PEG programming in each (or any) municipality in which AT&T provides U-verse TV service. Because of that, AT&T has developed an innovative

PEG product that makes PEG programming available on a Designated Market Area ("DMA")-wide basis, which enables its subscribers to have access to *more* PEG programming (in terms of both volume and the number of PEG programmers) than is available to cable subscribers, and which allows PEG programmers to reach even broader audiences than they reach today on cable.

Rather than affording AT&T discretion and flexibility to offer PEG programming in a manner that reflects both the technical requirements of AT&T's IP-based system and the demands of the marketplace and its subscribers, petitioners here seek to impose on AT&T's IP-based system an anachronistic model of PEG programming — one that reflects the historical facts that cable companies constructed their cable systems on a municipality-by-municipality basis and that local authorities required the insertion of local programming in exchange for an exclusive cable franchise. The regulations that petitioners seek here lack any legal foundation, would remedy problems that do not exist, and would impose substantial burdens on AT&T's ability to compete effectively as a new entrant in the video marketplace. The Commission should refuse petitioners' request for broad regulation of AT&T's PEG product and deny the petitions for declaratory ruling for the following reasons:

First, the few federal PEG obligations that do exist apply only to cable operators, and AT&T is not a cable operator. In any case, the important issue of the proper regulatory classification of AT&T's U-verse TV service involves substantial questions of law and fact (with implications far beyond the PEG context) that are not appropriately resolved on the limited record in this proceeding, especially because this issue is pending in an ongoing rulemaking proceeding. Contrary to petitioners' claims, the decision of a single Connecticut court on this issue is neither binding on this Commission nor is it persuasive, and it provides no basis for the

¹ DMA is a term used by Nielsen Media Research to refer to a group of counties that are covered by a specific group of broadcast televisions stations.

broad relief petitioners seek here. The Commission should therefore exercise its substantial discretion in addressing petitions for declaratory ruling and deny the petitions on this basis alone.

Second, the Commission's ancillary authority under Title I provides no basis for the imposition of the PEG obligations that petitioners request. As the precedent on which petitioners rely makes clear, the promulgation of rules pursuant to Title I must occur in a rulemaking proceeding, not an adjudicatory proceeding such as this. Moreover, Title I provides no basis for imposing the sweeping and costly PEG rules that petitioners seek: there is no longstanding regulatory policy that PEG channels must be provided in a manner identical to that in which non-PEG channels are provided. Any such requirement, as applied to AT&T, would risk imperiling the deployment of AT&T's advanced communications network, contrary to the Commission's express statutory obligations to promote competition for video services and broadband deployment.

Third, the First Amendment to the United States Constitution prohibits the Commission from regulating AT&T's PEG product in the manner requested by petitioners. Regulations that burden AT&T's speech are subject to intermediate First Amendment scrutiny. Petitioners' request to impose PEG regulations would fail such scrutiny because such regulations would impose substantial burdens on AT&T's speech — burdens that, on this record, are not justified by or narrowly tailored to advance any substantial governmental interest.

Fourth, even assuming that AT&T's U-verse TV service is subject to PEG requirements under the federal Cable Act, AT&T's PEG product is in full compliance with federal law.

Contrary to petitioners' understanding, federal law imposes only modest PEG requirements on cable operators. Federal law permits, but does not require, franchise authorities to require PEG programming as part of a cable franchise. In those circumstances, federal law requires that the

PEG programming be provided as part of the basic service tier — namely, that basic package of video programming offered by a cable operator to which all subscribers must subscribe in order to purchase cable service. AT&T fully complies with that obligation because its PEG product is available to all subscribers as part of its most basic tier of programming. Furthermore, this Commission historically has refused to impose costly PEG requirements on new entrants to the video marketplace. Given AT&T's commitment to provide PEG programming and that the regulations that petitioners seek could imperil AT&T's rollout of U-verse TV service, the Commission should afford the same flexibility and discretion to AT&T that it has afforded to new entrants in the past.

Petitioners' contrary reading of federal law as imposing a broad non-discrimination obligation with respect to the manner in which PEG programming is provided is unfounded. Petitioners' legal arguments also fail because the basic-service-tier PEG requirement is, at its core, a rate regulation requirement that no longer applies when there is "effective competition" in the market, as the D.C. Circuit and this Commission have previously recognized.

Finally, petitioners' narrow focus on current technical issues with AT&T's PEG product ignores the broader point that AT&T's PEG product offers many advantages over traditional PEG programming provided by cable companies — advantages that would be sacrificed were AT&T forced to redesign its innovative network to accommodate petitioners' demands that AT&T provide PEG programming in precisely the same manner as incumbent cable companies. Moreover, petitioners ignore the fact that AT&T's network is continuing to evolve and that solutions to most of the concerns raised by petitioners have either already been implemented or are currently being tested for deployment.

The examples cited by petitioners provide no basis for the declaratory relief they seek:

- Although petitioners raise concerns with AT&T's ability to provide closed captioning for PEG programming, AT&T is currently providing open captioning for its PEG programming, which this Commission has recognized serves the same important functions as closed captioning. Furthermore, AT&T is in the process of testing, and will launch this year, software that should substantially address petitioners' concerns by allowing AT&T to pass through closed captioning and secondary-audio programming.
- Petitioners' complaints about the signal quality of AT&T's PEG product are similarly misplaced. AT&T is proud of the quality of all of its programming, and it is constantly working to improve it. In May 2008, for example, AT&T increased the bit rate for PEG programming to 1.25 Mbps, which has allowed AT&T to provide the same video signal resolution as standard definition commercial programming carried on U-verse TV service. Further innovations are on the horizon.
- AT&T is also working hard to address concerns with PEG programming access time.
 AT&T has added a direct link to PEG programming on the main menu of its
 programming guide a feature afforded to no other programming and it has made
 great strides since the launch of U-verse TV service to reduce access time. Future
 software upgrades will continue to improve the efficiency of subscriber set top boxes and
 to reduce the time it takes to access PEG programming.
- Despite petitioners' alarm regarding DVR capability, petitioners ignore that AT&T's basic service package does not include DVR functionality for any programming, including commercial channels. U-verse TV service subscribers may nevertheless use other recording devices, such as a VCR or TiVo, to record PEG programming. Although there are certain limitations in using a stand-alone DVR for PEG programming, this issue hardly serves as support for the sweeping regulatory intervention that petitioners seek.

BACKGROUND

A. AT&T's Rollout of U-verse TV Service

Incumbent cable companies currently face little or no video competition in large parts of the country.² The absence of competition, this Commission has found, gives rise to substantial

² See Report and Order and Further Notice of Proposed Rulemaking, *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984 as amended by the Cable Television Consumer Protection and Competition Act of 1992*, 22 FCC Rcd 5101, ¶ 19 (2007) ("Section 621 Order") ("Most communities in the United States lack cable competition, which would reduce cable rates and increase innovation and quality of service."), *petitions for review denied, Alliance for Community Media v. FCC*, 529 F.3d 763 (6th Cir. 2008), *petition for cert. filed*, No. 08-1027 (U.S. Feb. 10, 2009); *id.* ("In the vast majority of communities, cable competition simply does not exist.").

harm to consumers in terms of higher prices and lower quality of service.³ In an effort to bring needed competition to the market for video services across AT&T's 22-state footprint, AT&T has undertaken a multi-billion-dollar initiative — known as Project Lightspeed — to deploy more than 40,000 miles of new fiber-optic facilities. That rollout of fiber technology is enabling AT&T to provide its customers with VoIP and Internet access services, as well as with its U-verse TV service, over its upgraded wireline network, in competition with services provided by cable and Direct Broadcast Satellite ("DBS") providers.⁴ As this Commission has said, this competition will redound to the benefit of consumers: "Congress and the Commission have repeatedly found . . . that entry by [local exchange carriers] and other providers of wire-based video service into various segments of the multichannel video marketplace will produce major benefits for consumers. A significant increase in multichannel competition usually results in lower prices, more channels, and a greater diversity of information and entertainment from more sources."⁵

As a result of AT&T's investment in Project Lightspeed, more than one million residents nationwide now subscribe to AT&T's U-verse TV service.⁶ As part of that service, AT&T offers consumers a range of packages (or "tiers") of video programming. Beginning on February 1,

³ See Section 621 Order, 22 FCC Rcd at 5189 (statement of FCC Chairman Kevin J. Martin) (noting that "competition is desperately needed in the video market" and explaining that, "from 1995 to 2005, cable rates have risen 93%" while the price of "every other communications service ha[s] declined" since 1996).

 $^{^4}$ See Declaration of Paul Whitehead \P 9 ("Whitehead Decl.") (Ex. A).

⁵ Report and Order and Further Notice of Proposed Rulemaking, *Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, 22 FCC Rcd 20235, ¶ 17, *modified by Erratum*, 22 FCC Rcd 21828 (2007) ("MDU Exclusivity Order and FNPRM"), petition for review pending, National Cable & Telecomms. Assn'n v. FCC, No. 08-1016 (D.C. Cir. filed Jan. 16, 2008).

⁶ See Whitehead Decl. ¶ 10.

2009, AT&T's most basic tier of service is now a package called U-Basic. U-Basic contains a core lineup of video programming, and it is offered in all of AT&T's U-verse TV service markets for \$19 a month. In addition to U-Basic, AT&T offers a variety of upper tiers of programming, all of which build on the programming provided as part of the U-Basic lineup. AT&T charges rates that are often lower than rates charged by cable companies for similar programming, and its service has achieved high marks for customer satisfaction and brand loyalty. Indeed, in 2008, U-verse TV service was ranked by J.D. Power and Associates as "highest in customer satisfaction among residential television customers in all three regions where it was ranked."

The network on which AT&T provides U-verse TV service differs fundamentally from a traditional cable system. Cable systems were originally built around community antennae that collected video signals and provided those video signals to particular communities. ¹¹ Cable operators began providing service in an era of exclusive franchises granted by municipalities. For these reasons, cable operators entered the market on a municipality-by-municipality basis,

⁷ See id.

⁸ See id.

⁹ See Press Release, Strategy Analytics, FiOS, U-Verse Subscribers Most Satisfied Pay TV Consumers (Feb. 19, 2009) ("Despite their relatively short market history, Telco IPTV providers are well-positioned, and lead in customer satisfaction and brand loyalty, according to a survey just published by analyst firm Strategy Analytics. Over 80% of Verizon FiOS and AT&T U-Verse television customers reported to be 'very' or 'extremely' satisfied with their provider."), available at http://www.strategyanalytics.com/default.aspx?mod=PressReleaseViewer&a0= 4537.

¹⁰ Press Release, AT&T, *AT&T U-verse TV Premieres As Highest Ranked in J.D. Power and Associates Rankings for Residential Television in Three Regions Nationwide* (Oct. 1, 2008), *available at* http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26140; *see also* Whitehead Decl. ¶ 16.

¹¹ See Whitehead Decl. ¶ 34.

and they designed their networks to allow for the insertion of municipality-specific programming.

AT&T, by contrast, is entering the video marketplace as a new entrant, essentially playing catch-up with the cable operators, and it is deploying an advanced IP-based network that will allow AT&T to compete effectively with cable operators by being more technologically and economically efficient. AT&T's network therefore employs a regional video distribution model. Video content from national sources is first aggregated at a Super Hub Office and then distributed over AT&T's network to 47 regional video hub offices ("VHOs") located across the country. Each VHO typically serves a particular DMA. Because AT&T provides its video programming on a DMA-wide basis, its programming guide and channel assignments are the same for all subscribers residing within a single DMA. Unlike cable systems — which historically evolved on a local basis with cable headends located in each municipality — AT&T's IP-based network relies on regionally based VHOs, which are not designed to provide video programming specific to a particular municipality within the DMA. AT&T's regional model is crucial to AT&T's ability to compete effectively as a new entrant in the video marketplace.

The differences between U-verse TV service and cable service do not end there. Unlike the one-way, broadcast model for distributing video programming long employed by cable companies, AT&T's U-verse TV service depends on two-way interactivity between subscribers and AT&T's network. Thus, for example, AT&T's network transmits to subscribers only those video programs that are requested by a subscriber by means of the two-way interactions among

¹² See id. ¶¶ 12, 34-35.

 $^{^{13}}$ See id. ¶¶ 13-14, 22; Declaration of Mary McCarthy ¶¶ 3-4 ("McCarthy Decl.") (Ex. B); Declaration of Gustavo de Veciana ¶¶ 4-5 ("de Veciana Decl.") (Ex. C).

the subscriber, the set top box, and the VHO. When customers select a channel from AT&T's programming guide, a message is sent from the set top box through AT&T's IP-based network to the VHO to which the customer is assigned. In response, the requested programming is encoded and then sent in IP-format over a combination of fiber and copper facilities to the customer's set top box, where it is decoded and displayed on the subscriber's television.¹⁴

AT&T provides U-verse TV service in a digital, IP-packet format, using compression and advanced modem technology developed specifically for U-verse TV service. The same network architecture that provides video service also provides subscribers with VoIP and broadband Internet access capabilities. Because of the inherent two-way nature of AT&T's network, U-verse TV service currently includes an array of interactive features — such as the AT&T U-Bar, which allows subscribers to check stock quotes, traffic, and sports scores all without interrupting their current video program, AT&T Weather on Demand, AT&T Yahoo! Games, and AT&T Online Photos from Flickr — and the two-way, interactive design of the network will allow AT&T to introduce many interactive features in the future. The degree of two-way interactivity inherent in AT&T's network and the interactive features provided as part of AT&T's U-verse TV service render AT&T's service fundamentally different from cable service.

B. AT&T's PEG Product

Because of the two-way nature of AT&T's network and its degree of interactivity,

AT&T's U-verse TV service is not a "cable service" as that term is defined in the federal Cable

¹⁴ See Whitehead Decl. ¶¶ 13-14; McCarthy Decl. ¶ 3.

¹⁵ See Whitehead Decl. ¶¶ 14-15.

 $^{^{16}}$ See AT&T U-verse Applications, https://uma.att.com/assets/files/applications.html (last visited Mar. 6, 2009).

Act. AT&T is not, therefore, subject to legacy cable regulations applicable to cable operators under Title VI of the Communications Act, such as the requirement under section 531(a) to make "channel capacity" available for PEG programming, if the local franchising authority requires it. Nevertheless, AT&T has expended substantial resources to provide the next generation of PEG programming because AT&T recognizes the value that such programming brings to its subscribers.

Because of the structure of AT&T's IP-based network, AT&T cannot provide PEG programming in precisely the same manner as cable companies do. Because AT&T provides all video programming on a DMA-wide basis, its network is not designed (as cable systems are) to allow for the local insertion of programming. For that reason, AT&T does not provide PEG programming on a municipality-by-municipality basis; instead, it provides PEG programming — like all of its programming — on a DMA-wide basis. ¹⁹ Because of the large amount of PEG programming in some DMAs, however, it is neither economically nor technically feasible to assign an individual channel number on AT&T's programming guide to each PEG program. (For example, in the San Francisco/Oakland/San Jose DMA, AT&T could need to provide up to

¹⁷ See infra pp. 19-20; 47 U.S.C. § 522(6); see also Declaratory Ruling and Notice of Proposed Rulemaking, Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities, 17 FCC Rcd 4798, ¶ 61 (2002) ("Cable Modem Declaratory Ruling") (noting that "[t]he phrase 'one-way transmission to subscribers' [in the Cable Act definition of cable service] . . . reflects the traditional view of cable as primarily a medium of mass communication, with the same package or packages of video programming transmitted from the cable operator and available to all subscribers") (emphases added), aff'd in part, vacated in part, and remanded, Brand X Internet Servs. v. FCC, 345 F.3d 1120 (9th Cir. 2003), rev'd and remanded, National Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967 (2005). But see Office of Consumer Counsel v. Southern New England Tel. Co., 515 F. Supp. 2d 269, 282 (D. Conn. 2007) ("Office of Consumer Counsel I"), recon. denied by 514 F. Supp. 2d 345, 351 (D. Conn. 2007) ("Office of Consumer Counsel II"), appeal pending, No. 09-0116-cv (2d Cir.).

¹⁸ 47 U.S.C. § 531(a).

¹⁹ See Whitehead Decl. ¶¶ 35-42.

90 separate PEG channels.)²⁰ Instead, AT&T has created a specialized PEG product — located on Channel 99 nationwide — that is provided as part of AT&T's current basic service tier (U-Basic).²¹

The innovative manner in which AT&T provides PEG programming is a testament to the benefits of competition, not a cause for regulatory concern.²² One aim of competition is to bring new models for providing video programming to consumers, thus allowing consumers to choose which mix of technologies and methods of accessing and viewing video programming best meets their needs.²³ AT&T's PEG product provides programmers and municipalities with new opportunities to reach audiences across a DMA, demonstrating how video competition can bring new choices and benefits to consumers. Unlike cable subscribers, AT&T U-verse TV service subscribers who live and work in one municipality within a DMA but send their child to a school in a nearby municipality would be able to watch the educational programming relating to their child's school. This expansion of the boundaries of local programming is but one example of the way that AT&T's IP-based system provides an innovative alternative to PEG programming provided by cable services.

In those DMAs where AT&T offers U-verse TV service, AT&T's PEG product is available to all subscribers for all municipalities that elect to provide their PEG programming to AT&T. Because it is included as part of the U-Basic package of programming (a package of programming available for \$19 a month), AT&T's PEG product is available on Channel 99 to *all*

²⁰ *See infra* pp. 28-29.

²¹ See Whitehead Decl. ¶¶ 24, 26-27, 35-42.

²² See generally infra Part V.

 $^{^{23}}$ See MDU Exclusivity Order and FNPRM ¶ 17 nn.50-52; Section 621 Order ¶ 2 ("competition for delivery of bundled services will benefit consumers by driving down prices and improving the quality of service offerings").

of AT&T's U-verse TV service subscribers.²⁴ AT&T, moreover, does not charge more to its subscribers for access to PEG programming. And AT&T has invested substantial resources in a national promotional effort to ensure that subscribers recognize that PEG programming is available at Channel 99.²⁵

AT&T's PEG product is expanding rapidly. As of February 2009, AT&T provides a total of approximately 248 streams of PEG programming from 132 cities in DMAs such as Chicago, San Francisco, San Diego, Los Angeles, Sacramento, Detroit, Indianapolis, Fresno, Hartford, Atlanta, Kansas City, Grand Rapids, St. Louis, Cleveland, Columbus, Dallas, Houston, San Antonio, Madison, and Milwaukee.

C. The Petitions for Declaratory Ruling

Despite the enormous benefits that the rollout of AT&T's U-verse TV service is bringing to consumers and municipalities alike across the country, the City of Lansing and the Alliance for Community Media ("ACM") (and certain other PEG programmers) (collectively, "petitioners") have filed petitions for declaratory ruling with the Commission seeking to apply legacy cable PEG rules and regulations to AT&T's U-verse TV service.

On January 27, 2009, the City of Lansing filed a petition with this Commission seeking a declaration that 47 U.S.C. § 543(b) imposes a broad, non-discrimination obligation with respect to all programming and networks provided on the basic service tier, which, according to the City of Lansing, renders AT&T's PEG product unlawful.²⁶ The City of Lansing further seeks a broad

 $^{^{24}}$ See Whitehead Decl. ¶¶ 24, 26-27.

²⁵ See id. ¶ 27.

²⁶ See Petition for Declaratory Ruling, Petition for Declaratory Ruling on Requirements for a Basic Service Tier and for PEG Channel Capacity Under Sections 543(b)(7), 531(a) and the Commission's Ancillary Jurisdiction Under Title I (FCC filed Jan. 27, 2009).

declaration that AT&T is bound by a series of PEG signal and functionality requirements.²⁷ The City of Lansing's petition assumes that AT&T is a cable operator providing cable service under federal law, for which proposition the City relies on the decision of a single Connecticut court.²⁸ Although that assumption is incorrect for the reasons discussed below, it is ultimately irrelevant because the petition misconstrues the law even as it applies to cable operators providing cable service.

Three days after the City of Lansing's petition, ACM filed a similar petition for declaratory ruling with the Commission.²⁹ ACM asserts that AT&T has engaged in "systematic discrimination against PEG programming" and it argues, among other things, that AT&T's PEG product should be declared unlawful because, ACM maintains, AT&T does not provide PEG programmers "channels" as contemplated by the Cable Act.³⁰ Like the City of Lansing's petition, ACM's petition is premised on the assumption that AT&T is a "cable operator" subject to cable regulations set forth in Title VI.³¹

On February 6, 2009, the Media Bureau issued a public notice seeking comments on the petitions, and setting a March 9 deadline for comments and oppositions.³²

²⁷ See id. at 13-23.

²⁸ *See id.* at 4-5.

²⁹ See Petition for Declaratory Ruling of Alliance for Community Media et al., Petition for a Declaratory Ruling That AT&T's Method of Delivering Public, Educational and Governmental Access Channels over its U-verse System Is Contrary to the Communications Act of 1934, as Amended, and Applicable Commission Rules (FCC filed Jan. 30, 2009).

³⁰ *Id.* at 8.

³¹ *Id.* at 37-38.

³² Public Notice, *Entities File Petitions for Declaratory Ruling Regarding Public*, *Educational, and Governmental Programming*, CSR-8126, CSR-8127, CSR-8128, MB Docket No. 09-13 (rel. Feb. 6, 2009). The Media Bureau also called for comments on a petition for a declaratory ruling involving Comcast, which petition raises related questions about the scope and meaning of the basic-service-tier requirement. *See* Petition for Declaratory Ruling of the City of

DISCUSSION

I. THE COMMISSION SHOULD DENY THE PETITIONS BECAUSE THE THRESHOLD QUESTIONS WHETHER AT&T IS A "CABLE OPERATOR" AND WHETHER IT PROVIDES "CABLE SERVICE" CANNOT PROPERLY BE RESOLVED IN THIS PROCEEDING

As discussed in detail in Part IV, and contrary to petitioners' arguments here, federal PEG requirements are exceptionally narrow. The few requirements that do exist, moreover, do not apply to all multichannel video programming distributors ("MVPDs"). Rather, they apply only to a subset of that category — namely, "cable operator[s]," as Congress defined that term in the Cable Act.³³

Although petitioners maintain that AT&T is a cable operator providing cable service and thus subject to federal PEG requirements,³⁴ the petitions offer neither sufficient legal argument nor factual support for this assertion. Instead, to establish that AT&T is a cable operator subject to federal PEG obligations, petitioners place complete reliance on the decision of a single district court in Connecticut that so held.³⁵ But that decision — which is currently on appeal — is neither binding on this Commission nor persuasive. There is accordingly no basis in this record for the Commission to resolve whether AT&T is a cable operator or whether U-verse TV service is a cable service. For that reason alone, the petitions must be rejected.

Dearborn, *Petition for Declaratory Ruling Regarding Primary Jurisdiction Referral* (FCC filed Dec. 9, 2008). AT&T shall address issues raised in the Dearborn petition to the extent they are relevant to the petitions regarding AT&T.

³³ See 47 U.S.C. § 541(a)(4)(B) (allowing franchising authorities to require "cable operator[s]" to provide PEG "channel capacity"); *id.* § 522(5) (defining "cable operator").

³⁴ See Lansing Pet. at 4 (arguing "AT&T is a cable operator under the terms of the [Cable Act] and is providing cable service over a cable system"); ACM Pet. at 37-38. Petitioners' claim that the Commission could exercise its Title I authority to impose PEG obligations on AT&T regardless of whether it is a cable operator is addressed below in Part II. Furthermore, as discussed in Part IV, AT&T's PEG product is in full compliance with federal law in all events.

³⁵ See Lansing Pet. at 4-5 (citing and discussing *Office of Consumer Counsel I*); see also ACM Pet. at 38.

A. The Decision of the Connecticut Court on Which Petitioners Rely Is Not Binding on This Commission and Is Not Persuasive

Petitioners rest their case that AT&T is a cable operator providing cable service on a single Connecticut district court decision. But that decision provides no basis for deciding that AT&T is subject to cable regulation under Title VI.

First, setting aside whether this Commission would ever be bound by the statutory interpretation of a single district court,³⁶ it is settled that this Commission is not bound by a previous judicial decision interpreting an *ambiguous* provision of the Communications Act. The Commission itself has recognized as much by concluding that cable modem broadband Internet access is an information service, contrary to decisions by the Ninth Circuit.³⁷ As the Supreme Court said in affirming that decision, "allowing a judicial precedent to foreclose an agency from interpreting an ambiguous statute . . . would allow a court's interpretation to override an agency's. Chevron [U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984)]'s premise is that it is for agencies, not courts, to fill statutory gaps."³⁸

This Commission would not even be bound by a court of appeals' decision purporting to interpret an unambiguous provision of the Cable Act, at least outside of the states encompassed within that circuit. *See*, *e.g.*, *Johnson v. United States R.R. Retirement Bd.*, 969 F.2d 1082, 1093 (D.C. Cir. 1992) ("[a]lthough the decision of one circuit deserves respect, we have recognized that it need not be taken by the Board as the law of the land"; "[w]hen the Board's position is rejected in one circuit . . . it should have a reasonable opportunity to persuade other circuits to reach a contrary conclusion") (internal quotation marks omitted). That same logic applies with greater force with respect to a *district* court decision (which is not even binding on other district courts in the same circuit), especially given that the Commission was not a party to the underlying litigation and in view of the Hobbs Act's commitment of exclusive jurisdiction to review actions of this Commission to courts of appeals. *See FCC v. ITT World Communications, Inc.*, 466 U.S. 463, 468 (1984) ("Exclusive jurisdiction for review of final FCC orders . . . lies in the Court of Appeals.").

³⁷ See Cable Modem Declaratory Ruling ¶¶ 56-58.

³⁸ Brand X, 545 U.S. at 982; see id. ("A court's prior judicial construction of a statute trumps an agency construction otherwise entitled to *Chevron* deference only if the prior court decision holds that its construction follows from the unambiguous terms of the statute and thus leaves no room for agency discretion.").

That principle applies here, foreclosing any suggestion that the district court's decision binds or should be considered authoritative by the Commission.³⁹ The Connecticut court never held that the Cable Act *unambiguously* compels the conclusion that AT&T is a cable operator and that U-verse TV service is a cable service. On the contrary, the court recognized that "resort to legislative history" was necessary because the statute was ambiguous.⁴⁰ Furthermore, in rejecting AT&T's argument that it had unlawfully failed to adhere to this Commission's interpretation of "cable service" in the *Cable Modem Declaratory Ruling*, the court explained in its decision on reconsideration that it had in fact "impliedly assumed" in its prior ruling "that the FCC's view of the Cable Act definitions *is authoritative*."⁴¹ That statement makes clear that the court did not adopt an interpretation of the Cable Act that would bind this Commission's subsequent interpretation of the Cable Act.

Because the district court did not hold that the "only permissible reading of the statute" is that AT&T is a cable operator providing cable service, this Commission is not bound by its holding, even assuming that the Commission could ever be bound by the decision of a single district court. 43 Congress "charged" this Commission "with the administration of the Cable

³⁹ See, e.g., Lansing Pet. at 5 (arguing the decision "should be given great weight").

⁴⁰ Office of Consumer Counsel I, 515 F. Supp. 2d at 275-77; see also id. at 278 (finding that "the plain meaning of the statutory language does not, on its own, suffice to resolve the parties' dispute concerning the scope of the term 'subscriber interaction'").

⁴¹ Office of Consumer Counsel II, 514 F. Supp. 2d at 348 (emphasis added).

⁴² *Brand X*, 545 U.S. at 984 (emphasis omitted).

⁴³ *See supra* p. 15 note 36.

Act,"⁴⁴ and the important statutory questions of whether AT&T is a cable operator and whether AT&T's U-verse TV service is a cable service should be decided first by this expert agency.⁴⁵

Second, the Connecticut court's decision that AT&T is a cable operator providing cable service was factbound, and the facts underlying the decision have changed. The court emphasized, for example, that the "heart" of its determination that U-verse TV service was a cable service was its view that "the extent of interactivity in the AT&T service is insufficient to remove it from falling within the statutory definition of 'cable service." The court was clear, however, that its ruling was based on the specific record before it: the court discounted "AT&T's speculative assertions about the future capabilities of its U-verse service" because "the Court considered the factual record" as it existed and, on that basis, "concluded that AT&T's existing product constitutes a 'cable service' within the meaning of the Cable Act."

For the reasons articulated below, AT&T believes that the Connecticut court's conclusion that AT&T's U-verse TV service is a cable service was incorrect at the time it was reached.⁴⁸
Regardless, U-verse TV service is now substantially different from the service addressed by the Connecticut decision. The court decided that case on the basis of a record compiled by a state commission in 2005. Since that time, AT&T's IP-based architecture has continued to evolve and

⁴⁴ City of Chicago v. FCC, 199 F.3d 424, 428 (7th Cir. 2000).

⁴⁵ The Commission has so far declined to resolve these questions. *See* Second Report and Order and Further Notice of Proposed Rulemaking, *Review of the Emergency Alert System*, 22 FCC Rcd 13275, ¶¶ 47-48 (2007) ("*EAS Order*").

⁴⁶ Office of Consumer Counsel II, 514 F. Supp. 2d at 350.

⁴⁷ *Id.* at 351 (emphasis added).

⁴⁸ *See infra* pp. 19-20.

so, too, has the interactive nature of AT&T's U-verse TV service. 49 Moreover, the service is still evolving. In view of those changes and the dynamic nature of AT&T's advanced IP-based system, it would be imprudent to lock in place the holding of a single district court that turned on a technological understanding of AT&T's U-verse TV service that is no longer accurate and will become increasingly inapposite as the service develops over time.

Third, and finally, this Commission should afford no weight to the Connecticut court's decision because the court lacked jurisdiction to issue a final judgment. By the time the district court entered a final judgment, the underlying state commission decision that plaintiffs had sought to preempt⁵⁰ had been superseded by a comprehensive state video franchise law.⁵¹

Because there was no longer a live case and controversy on the question presented in the complaints — that is, plaintiffs were seeking to have preempted a state commission decision that had been superseded by state law — the court was without authority to enter a binding, final judgment.⁵² That issue is now pending on appeal before the Second Circuit.⁵³

⁴⁹ See, e.g., AT&T, The Evolution of AT&T U-verse, available at http://www.att.com/Common/merger/files/pdf/total_home_dvr/Evolution_of_U-verse.pdf (last visited Mar. 6, 2009).

⁵⁰ See Decision, DPUC Investigation of the Terms and Conditions Under Which Video Products May Be Offered by Connecticut's Incumbent Local Exchange Companies, Docket No. 05-06-12, 2006 WL 1682189 (Conn. DPUC June 7, 2006).

⁵¹ See Conn. Pub. Act No. 07-253, An Act Concerning Certified Competitive Video Service (eff. date Oct. 1, 2007).

⁵² See, e.g., In re Burrell, 415 F.3d 994, 997 (9th Cir. 2005) (when a case becomes moot while "pending before the district court," the court loses jurisdiction and "[cannot] issue a *bona fide* 'final decision' in [the] case").

⁵³ See Office of Consumer Counsel v. Southern New England Tel. Co., No. 09-0116-cv (2d Cir.).

B. The Appropriate Regulatory Classification for AT&T's U-verse TV Service Is Not Fit for Resolution in an Expedited Declaratory Proceeding

Because the Connecticut court's decision does not bind this Commission, any declaration that AT&T must comply with federal PEG obligations would first require this Commission to address whether AT&T is a cable operator providing cable service under federal law. But this proceeding is the wrong forum to resolve those questions.

As we have explained, whether AT&T is a cable operator and whether U-verse TV service is a cable service turn on questions of fact — including the current architecture of AT&T's advanced IP-based network (and comparisons of that architecture with the architecture of cable networks) and the degree and level of network interactivity required by AT&T's U-verse TV service (and comparisons with the interactivity of cable service).⁵⁴

The question also turns on important issues of law, the resolution of which would radiate well beyond PEG obligations, with ramifications for a range of Title VI cable obligations. As AT&T has explained in its comments in the *IP-Enabled Services* proceeding pending before this Commission, the Cable Act defines a cable service as "the one-way transmission to subscribers of video programming" and "subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service." That definition, as this Commission has held, was meant to encompass historical cable systems, which operated using a one-way, broadcast transmission model in which subscriber interactivity was limited. Because

⁵⁴ *See supra* p. 9 n.17.

⁵⁵ 47 U.S.C § 522(6); see The Impact and Legal Propriety of Applying Cable Franchise Regulations to IP-Enabled Video Services at 1, 12-28 (attached to Letter from James C. Smith to Marlene H. Dortch, WC Docket No. 04-36 (Sept. 14, 2005)).

⁵⁶ See Cable Modem Declaratory Ruling ¶ 61.

AT&T's IP-based network is an inherently interactive, *two-way* system, as we have explained,⁵⁷ U-verse TV service is not a cable service.

Application of these definitions to AT&T's current service, however, would require a substantial factual record developed in a rulemaking proceeding. This Commission's precedent is clear that resolution of such factbound and substantial legal issues should not occur on the basis of a limited record in a declaratory ruling proceeding such as this.⁵⁸

It would be particularly inappropriate to address these substantial questions in the posture of a declaratory ruling proceeding because the classification of AT&T's U-verse TV service is already part of an ongoing proceeding in the Commission's *IP-Enabled Services* docket, WC Docket No. 04-36. In that proceeding, the Commission has broadly sought comment on whether and how to regulate a range of IP-enabled services and specifically on whether "IP-enabled services" should be regulated (and, if so, to what extent) under Title VI. ⁵⁹ AT&T has asked the Commission in that proceeding that, as part of the Commission's "comprehensive" effort to establish a "regulatory framework [for] all IP-enabled services," the Commission should hold that AT&T's U-verse TV service is not a cable service. ⁶⁰ That proceeding is ongoing.

As this Commission has said, when issues raised in a "petition [for declaratory ruling] are currently being considered" in "ongoing rulemakings," considerations of "procedure and administrative efficiency" counsel in favor of "resolv[ing]" the issues "in the context of the

⁵⁷ *See supra* pp. 8-9.

 $^{^{58}}$ See, e.g., Notice of Proposed Rulemaking, *Preemption of Local Zoning Regulations of Receive-Only Satellite Earth Stations*, 100 F.C.C.2d 846, ¶ 1 (1985) (refusing to consider issues in declaratory ruling proceeding, as opposed to rulemaking, where the issue raised issues of "significant . . . concern" and "because of the limited record compiled").

 $^{^{59}}$ See Notice of Proposed Rulemaking, IP-Enabled Services, 19 FCC Rcd 4863, \P 70 (2004).

⁶⁰ See The Impact and Legal Propriety of Applying Cable Franchise Regulations to IP-Enabled Video Services at 1, 12-28.

Commission's existing rulemaking proceedings."⁶¹ Those same concerns apply here: because the threshold issue of whether AT&T's U-verse TV service is a cable service and therefore potentially subject to federal PEG requirements is currently pending in the *IP-Enabled Services* proceeding, the Commission should exercise its "broad discretion" to dismiss the petitions, at least until the question of the proper classification of AT&T's U-verse TV service is resolved in an appropriate proceeding.⁶²

II. THE COMMISSION SHOULD NOT IMPOSE ANY PEG OBLIGATIONS ON AT&T UNDER TITLE I IN THIS PROCEEDING

Petitioners also contend that, even if AT&T is not a cable operator providing a cable service, the Commission should nonetheless exercise its ancillary authority under Title I to impose PEG obligations on AT&T.⁶³ Petitioners' request that the Commission exercise Title I rulemaking authority in a declaratory ruling proceeding is both procedurally improper and substantively unfounded.

A. The Commission May Not Adopt or Amend Rules in This Proceeding

In requesting that the Commission impose cable regulations on AT&T even if AT&T is not a cable operator providing cable service, petitioners effectively ask the Commission to amend the Commission's rules in a declaratory ruling proceeding. But that it may not do: "a declaratory ruling proceeding is an *adjudication*, not a *rulemaking* under the Administrative

 $^{^{61}}$ Order, Petition for Declaratory Ruling That Any Interstate Non-Access Service Provided by Southern New England Telecommunications Corp. Be Subject to Non-Dominant Carrier Regulation, 11 FCC Rcd 9051, ¶ 4 (1996).

⁶² See Order, Telephone Number Portability, 19 FCC Rcd 6800, ¶ 20 (2004) ("The Commission has broad discretion under the Administrative Procedure Act and Commission rules to decide whether a declaratory ruling is necessary to terminate a controversy or remove uncertainty.") (internal quotation marks omitted); *Yale Broad. Co. v. FCC*, 478 F.2d 594, 602 (D.C. Cir. 1973) ("Commission is not *required* to issue a declaratory statement merely because [a party] asks for one"; such decisions are committed to the "discretion" of the Commission).

⁶³ See Lansing Pet. at 23.

Procedure Act."⁶⁴ For that reason, the Commission cannot amend PEG rules to make them apply to AT&T nor can it impose new rules on AT&T based on the Commission's ancillary authority under Title I. If the Commission were to consider adopting such rules at all, it can do so only through a proper rulemaking proceeding.⁶⁵ Indeed, the *EAS Order*, on which the City of Lansing purports to rely as relevant precedent,⁶⁶ was itself a rulemaking proceeding, confirming that, if the Commission is going to impose PEG requirements on video providers (such as AT&T) that are not cable operators under Title VI, it must do so through a notice-and-comment rulemaking.⁶⁷

B. PEG Rules Cannot Be Justified Under Title I

Setting aside the procedural defect with petitioners' request that the Commission use its ancillary authority to regulate AT&T as a cable service, Title I provides no substantive basis for implementing the sweeping PEG regulations that petitioners seek. The Commission's "ancillary jurisdiction [under Title I] is limited to circumstances where: (1) the Commission's general jurisdictional grant under Title I covers the subject of the regulations and (2) the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities." The Supreme Court has cautioned that the Commission's authority under

 $^{^{64}}$ Declaratory Ruling, *Petitions of Sprint PCS and AT&T Corp.*, 17 FCC Rcd 13192, ¶ 20 n.51 (2002) (emphases added).

 $^{^{65}}$ See, e.g., Notice of Proposed Rulemaking, Amendment of Sections 73.62 and 73.1350 of the Commission's Rules, 18 FCC Rcd 13570, ¶ 1 (2003) ("The issue was initially raised in a Petition for Declaratory Ruling filed pursuant to Section 1.2 of the Commission's rules Because the issues raised may involve a substantive amendment of the Commission's rules, the proper vehicle for resolving this proceeding is a Notice of Proposed Rulemaking.") (alterations and footnotes omitted).

⁶⁶ See Lansing Pet. at 26-27.

⁶⁷ See EAS Order ¶ 48. The Commission also issued the VoIP Disability Access Order — upon which the City of Lansing relies (at 23-24) — as part of a rulemaking. See Report and Order, IP-Enabled Services, 22 FCC Rcd 11275, ¶¶ 9-15 (2007) ("VoIP Disability Access Order"); id. App. B (listing final rule changes).

⁶⁸ American Library Ass'n v. FCC, 406 F.3d 689, 700 (D.C. Cir. 2005).

Title I is not "unbounded" because Congress has "not delegated unrestrained authority" to the Commission.⁶⁹

The extensive PEG requirements that petitioners seek to impose on AT&T could not be justified under Title I. Neither a PEG non-discrimination rule nor PEG functionality and signal standards nor any of the broad PEG obligations that petitioners propose are "reasonably ancillary to the effective performance of the Commission's . . . responsibilities." Although PEG programming has long been provided by cable operators, petitioners are wrong to suggest that there is a "'long-established regulatory goal[]" of ensuring that PEG programming is *indistinguishable* from other programming carried on a basic service tier. Petitioners do not point to any judicial decision, Commission rule, or statute supporting the inflexible and broad equal treatment mandate that petitioners urge the Commission to adopt. There is accordingly no basis for the exercise of the Commission's ancillary Title I jurisdiction on this record.

In fact, Congress authorized local franchising authorities to impose PEG obligations only on cable operators, rather than on MVPDs more broadly. The text of section 531 confirms that any federal PEG obligations apply to cable operators, and *only* to cable operators: "A franchising authority may establish requirements in a [cable] franchise with respect to the designation or use of channel capacity for public, educational, or governmental use *only to the*

⁶⁹ FCC v. Midwest Video Corp., 440 U.S. 689, 706 (1979); see also Illinois Citizens Comm. for Broad. v. FCC, 467 F.2d 1397, 1400 (7th Cir. 1972) (noting that the Supreme Court has "tread[ed] lightly" in construing the FCC's Title I authority "even where the activity at issue" "easily falls within" Title I's general jurisdictional grant).

⁷⁰ First Report and Order and Notice of Proposed Rulemaking, *IP-Enabled Services*, *E911 Requirements for IP-Enabled Service Providers*, 20 FCC Rcd 10245, ¶ 29 (2005), *aff'd*, *Nuvio Corp. v. FCC*, 473 F.3d 302 (D.C. Cir. 2006).

⁷¹ Lansing Pet. at 26 (quoting *United States v. Midwest Video Corp.*, 406 U.S. 649, 667-68 (1972)).

extent provided in this section."⁷² Congress certainly knows how to impose obligations on all MVPDs when it sees fit; for example, while it applied the basic-service-tier requirement only to cable operators, ⁷³ it applied its requirements concerning commercial navigation devices to *all* MVPDs. ⁷⁴ By applying PEG obligations *only* to cable operators and effectively limiting the ability of franchising authorities to demand PEG channels from anyone other than cable operators, Congress evidences its intent regarding the scope of PEG obligations, and this Commission has no authority under Title I to extend those obligations to other MVPDs.

Furthermore, the Commission's express statutory obligations point in the opposite direction. The aim of federal communications policy is to reduce regulation and to encourage the deployment of innovative services like AT&T's U-verse TV service. The preamble to the Telecommunication Act of 1996 Act, for example, announces the federal objective of "reduc[ing] regulation in order to . . . encourage the rapid deployment of new telecommunications technologies." Congress has further instructed the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing . . . measures that promote competition" and that "remove barriers to infrastructure investment." Furthermore, it is "the policy of the United States" "(1) to promote the continued development of the Internet and other interactive computer services and other interactive media; [and] (2) to preserve the vibrant and competitive free

⁷² 47 U.S.C. § 531(a) (emphasis added).

⁷³ See id. § 543.

⁷⁴ See id. § 549.

⁷⁵ Pub. L. No. 104-104, 110 Stat. 56, 56 (1996).

⁷⁶ 47 U.S.C. § 157 note.

market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."⁷⁷

Those statutory directives evidence Congress's "stern disapproval" of any Commission regulation that would impede the development of new IP-based technologies, such as AT&T's U-verse TV service. In view of Congress's command to encourage the deployment of advanced communications services, Title I would provide no authority for this Commission to impose broad and costly PEG requirements — far beyond those requirements originally agreed to by cable companies in exchange for a monopoly franchise — on a new entrant to the video marketplace.

Indeed, this Commission has recently recognized that, even in the cable context, PEG obligations should not be implemented in a manner that frustrates other statutory objectives, such as promoting competition. In the *Section 621 Order*, the Commission held that local franchising authorities were prohibited from "mak[ing] unreasonable demands of competitive applicants for PEG."⁷⁹ Furthermore, the Commission has rejected requests to impose PEG requirements, along with certain other regulatory obligations, on DBS providers out of concern that such requirements might unduly stifle market entry.⁸⁰

⁷⁷ *Id.* § 230(b).

⁷⁸ *Midwest Video Corp.*, 440 U.S. at 708; *see id.* at 705-08 (holding that the Commission lacked Title I authority to impose open access PEG obligations on cable operators in view of express statutory prohibition on subjecting broadcasters to common-carrier obligations).

⁷⁹ *Section 621 Order* ¶ 110.

⁸⁰ See Report and Order, *Implementation of Section 25 of the Cable Television Consumer Protection and Competition Act of 1992*, 13 FCC Rcd 23254, ¶ 60 (declining to impose certain regulatory obligations on DBS providers because, among other things, "DBS is a relatively new entrant attempting to compete with an established, financially stable cable industry" and "[a]dditional obligations on DBS providers might hinder the development of DBS as a viable competitor to cable") ("Section 25 Order"), modified by Erratum, 13 FCC Rcd 24279 (1998).

Those same concerns apply here. In fact, an exercise of Title I authority is particularly unnecessary to further any Commission objective because consumers already have access to PEG programming on cable systems and they can vote with their feet to the extent that AT&T denies consumers the quality or functionality in PEG programming that they desire. Beyond that, as explained below, AT&T provides a high-quality PEG product that is in many respects *superior* to the traditional PEG programming offered by cable companies, and AT&T's ability to offer a greater amount of PEG programming to broader audiences furthers, not hinders, the overarching objectives of the Cable Act.⁸¹

III. THE FIRST AMENDMENT PRECLUDES IMPOSING PEG REQUIREMENTS ON AT&T'S U-VERSE TV SERVICE IN THE MANNER REQUESTED BY PETITIONERS

It would violate the First Amendment of the United States Constitution for the Commission to impose the PEG requirements that petitioners seek. This Commission is obliged to construe Title I, the Cable Act, and its own rules so as to avoid serious constitutional difficulties, yet granting the petitions would infringe upon AT&T's free-speech rights without promoting any important or substantial government interest.⁸²

⁸¹ See infra Part V; see also 47 U.S.C. § 521(4). Petitioners are therefore wrong to assert that their proposed regulations would further the statutory aim of ensuring "the widest possible diversity of information." Lansing Pet. at 27 (quoting 47 U.S.C. § 521(4)). AT&T's current PEG product is available to *all* of its subscribers as part of the basic service tier, and AT&T's PEG product is capable of giving consumers access to *more* PEG programming than PEG programming of cable companies. See Whitehead Decl. ¶¶ 29-31.

⁸² See Arizonans for Official English v. Arizona, 520 U.S. 43, 78 (1997) ("Federal courts, when confronting a challenge to the constitutionality of a federal statute, follow a 'cardinal principle': They 'will first ascertain whether a construction . . . is fairly possible' that will contain the statute within constitutional bounds.") (quoting Ashwander v. TVA, 297 U.S. 288, 348 (1936) (Brandeis, J., concurring)) (ellipsis in original); First Report and Order and Notice of Proposed Rulemaking, Carriage of Digital Television Broadcast Signals, 16 FCC Rcd 2598, ¶ 113 (2001) ("an administrative agency can consider potential constitutional infirmities in deciding between possible interpretations of a statute") ("DTV Must Carry Order").

In providing U-verse TV service, AT&T is a First Amendment speaker. The provision of video programming, like broadcast television and cable service, is "speech entitled to the protection of the speech and press provisions of the First Amendment." It is equally settled that any Commission action that imposes a burden on such protected speech is subject to intermediate First Amendment scrutiny, even if that action is content neutral.⁸⁴

Under intermediate scrutiny, content-neutral regulations — such as petitioners' proposed PEG rules — can be sustained only if they "further[] an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest." The Supreme Court has explained that, in the context of cable "must carry" regulations, it is imperative "that the means chosen do not 'burden substantially more speech than is necessary to further the government's legitimate interests."

On the record before the Commission, the PEG rules that petitioners propose could not hope to survive this level of First Amendment scrutiny. Petitioners seek to impose sweeping, intrusive, and costly PEG requirements on AT&T — requirements that will substantially affect how AT&T provides video programming and that will impose such burdensome costs so as to imperil AT&T's ability to speak at all — despite the absence of any demonstrated harm arising from AT&T's PEG product. Petitioners demand, for example, that the Commission require

⁸³ *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 636 (1994) ("There can be no disagreement on an initial premise: Cable programmers and cable operators engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment") ("*Turner I*"); *Leathers v. Medlock*, 499 U.S. 439, 444 (1991).

⁸⁴ See Turner Broad. Sys., Inc. v. FCC, 520 U.S. 180, 185 (1999) ("content-neutral restrictions on speech [are] subject to intermediate First Amendment scrutiny").

⁸⁵ Turner I, 512 U.S. at 662 (internal quotation marks omitted).

⁸⁶ *Id.* (quoting *Ward v. Rock Against Racism*, 491 U.S. 781, 799 (1989)).

AT&T to provide every PEG channel "on its own discrete channel with a unique channel number." Furthermore, petitioners request an inflexible rule that "AT&T [must] provide PEG channels with the same accessibility and functionality as other basic service tier channels."

Such PEG requirements would substantially burden AT&T's speech. First, any rule that AT&T must provide all PEG networks on separately numbered channels — as opposed to its central platform on Channel 99 — would dramatically affect AT&T's programming lineup. The technical limits of and software used for AT&T's IP-based system currently allow AT&T to provide no more than several hundred separately numbered "channels." AT&T is utilizing a majority of those "channels" now and, for that reason, a requirement that AT&T provide PEG programming on separately numbered "channels" would force AT&T to drop programming that consumers desire and that AT&T would prefer to carry. That would run directly contrary to the First Amendment's protection of a video distributor's right to "exercis[e] editorial discretion over which stations or programs to include in its repertoire." For example, there are 96 individual cities or towns within AT&T's video franchise footprint in the San Francisco/Oakland/San Jose DMA. Although some smaller towns do not offer PEG programming, certain cities provide as many as seven PEG channels (e.g., San Francisco). If 30 cities within this DMA provided three PEG channels each, that alone would consume 90 of AT&T's U-verse TV channels in that DMA.⁹¹ AT&T would therefore likely need to eliminate 90 other networks that AT&T has chosen to add to its programming lineup to make room for

⁸⁷ Lansing Pet. at 17.

⁸⁸ *Id.* at 21.

⁸⁹ Whitehead Decl. ¶¶ 36-39.

⁹⁰ *Turner I*, 512 U.S. at 636.

⁹¹ See Whitehead Decl. ¶ 38.

PEG programming, inflicting an enormous competitive disadvantage on AT&T and directly burdening AT&T's First Amendment right to choose what programming to provide. ⁹² This also, of course, would negatively affect consumers if 90 networks that customers demand had to be replaced with 90 PEG channels from across a DMA.

Second, the alternative to overhauling AT&T's programming lineup to accommodate PEG programming would be to re-engineer AT&T's entire network — an endeavor that would be tremendously costly and that would impose significant First Amendment burdens. As explained above, AT&T inserts programming only at the level of the DMA, where AT&T's VHOs are located. 93 As a result of this technological configuration, U-verse TV service subscribers are afforded access to PEG programming from all municipalities within a DMA, which increases their exposure to public programming and clearly advances core First Amendment values.⁹⁴ In order to comply with petitioners' proposed PEG requirements without establishing a separate channel for every PEG network for every municipality, AT&T would have to abandon that DMA-wide model and limit PEG programming to the municipality in which a subscriber lives. Apart from losing the public-interest benefit of providing PEG programming on a DMA-wide basis, this would require the fundamental restructuring of AT&T's network — restructuring that would cost hundreds of millions of dollars, that would slow the deployment of AT&T's U-verse TV service, and that could undermine the economic justification for providing U-verse TV service at all. 95 The Commission has generally refused to

⁹² See id.

 $^{^{93}}$ See supra pp. 10-11; see also Whitehead Decl. ¶ 35; McCarthy Decl. ¶ 3.

⁹⁴ *See* Whitehead Decl. ¶¶ 29-30, 33.

⁹⁵ See McCarthy Decl. ¶ 14; Whitehead Decl. ¶ 42.

require that new networks be restructured simply to accommodate legacy regulations, ⁹⁶ and the Commission should be even more reluctant to do so where such legacy requirements would impose such a huge burden on the new entrant's ability to speak. While these requirements may not have created a significant burden on the ability of traditional cable operators to speak — given both the technology they use and the monopoly conditions at the time such requirements were imposed — such requirements would substantially burden AT&T's ability to compete in the video marketplace.

There is no governmental interest that would warrant imposing such severe First Amendment burdens on AT&T's speech. Although the federal government may have a substantial interest in allowing franchising authorities to require cable companies to provide PEG programming, there is no such interest in subjecting a new entrant, such as AT&T, to the same requirement. For one thing, AT&T will not be able to lure subscribers away from incumbent cable operators if AT&T does not offer subscribers the programming they want. There is thus no justification for *any* regulation of AT&T's PEG programming, because the market should ensure the optimal level and mix of programming. But even assuming *arguendo* that there is, AT&T's current PEG product fulfills any conceivable governmental interest in AT&T's provision of PEG programming. All U-verse TV service subscribers have access to AT&T's PEG product on

⁹⁶ See Memorandum Opinion and Order, *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, 19 FCC Rcd 22404, ¶ 29 (2004) (noting that state regulation would require Vonage "to change multiple aspects of its service operations . . . just for regulatory purposes" and finding preemption in light of the "significant efforts and inefficiency" that would be required to separate out the intra and interstate parts of Vonage's service), *aff'd, Minnesota Pub. Utils. Comm'n v. FCC*, 483 F.3d 570 (8th Cir. 2007); Memorandum Opinion and Order, *Petition for Declaratory Ruling that pulver. com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, 19 FCC Rcd 3307, ¶ 21 (2004) (observing that compliance with state regulatory obligations would "forc[e] changes on th[e] service" solely for regulatory purposes).

AT&T's basic service tier at no additional cost. ⁹⁷ Indeed, as we have explained, AT&T's PEG product furthers the First Amendment interest in PEG programming more robustly than does cable PEG programming by allowing subscribers to view *all* PEG programming produced in any municipality within the DMA. ⁹⁸ By making PEG programming available to wider audiences across an entire DMA and allowing for even more programming access than cable systems can offer, AT&T's PEG product better advances Congress's First Amendment aim of promoting a diversity of viewpoints. ⁹⁹

A party seeking to restrict or to impose costs on speech shoulders a heavy burden of proof, yet nothing in the record supports a finding that AT&T's current PEG product is undermining any legitimate governmental interest. Petitioners do not even attempt to prove, for example, that AT&T's PEG product has actually undermined PEG viewership or that any purported difference in signal quality or functionality between PEG programming and commercial networks has undermined the municipalities' ability to make their PEG programming available to subscribers. Absent concrete evidence of impairment of a governmental interest, the sweeping PEG regulations that petitioners propose could not pass constitutional muster: "[w]hen the Government defends a regulation on speech as a means to prevent anticipated harms, it must do more than simply posit the existence of the disease sought

⁹⁷ See Whitehead Decl. ¶ 10.

 $^{^{98}}$ See id. ¶¶ 29-30, 33.

⁹⁹ See, e.g., H.R. Rep. No. 98-934, 30 (1984), *reprinted in* 1984 U.S.C.C.A.N. 4655, 4667 (purpose of PEG channels is to allow access to diverse viewpoints and to contribute to an informed citizenry).

¹⁰⁰ Cf. Denver Area Educ. Telecomms. Consortium, Inc., 518 U.S. 727, 763-66 (1996) (finding, as part of the justification for striking down obscenity regulations on public access channels, the absence of significant evidence of obscene programming prior to the regulation).

to be cured. It must demonstrate that the recited harms are real, not merely conjectural[.]"¹⁰¹ Because there is no evidence in this record that the government's interest in having PEG programming accessible to video subscribers is imperiled in any manner by AT&T's PEG product, granting the petitions would violate the First Amendment.

IV. AT&T'S PEG PRODUCT IS IN FULL COMPLIANCE WITH FEDERAL LAW

A. AT&T's PEG Product Satisfies All PEG Requirements In Federal Law

1. Federal law imposes only very narrow PEG obligations on cable operators. Federal law *permits*, but does not *require*, franchising authorities to insist that cable operators set aside capacity on their cable systems for PEG channels.¹⁰² The Cable Act is thus agnostic with respect to whether cable franchises contain PEG obligations at all: "[a] franchising authority *may* establish requirements . . . with respect to the designation or use of channel capacity for public, educational, or governmental use," consistent with the terms of the Cable Act.¹⁰³

¹⁰¹ Turner I, 512 U.S. at 664 (citation and internal quotation marks omitted); see also United States v. Playboy Entm't Group, Inc., 529 U.S. 803, 822 (2000) (the "Government must present more than anecdote and supposition" as a justification for burdening speech); Edenfield v. Fane, 507 U.S. 761, 770-71 (1993) (a "burden is not satisfied by mere speculation or conjecture; rather, a governmental body seeking to sustain a restriction on commercial speech must demonstrate that the harms it recites are real"); Interactive Digital Software Ass'n v. St. Louis County, 329 F.3d 954, 959 (8th Cir. 2003) (county must "come forward with empirical support for its belief" that video games harm minors before restricting speech; "[w]here first amendment rights are at stake, the Government must present more than anecdote and supposition") (internal quotation marks omitted).

¹⁰² See 47 U.S.C. §§ 531, 541(a)(4)(B); see also Lansing Pet. at 7 ("The Federal Cable Act *permits* local governments to establish requirements in a cable franchise for the designation or use of channel capacity for PEG.") (emphasis added); *Time Warner Entm't Co. v. FCC*, 93 F.3d 957, 972 (D.C. Cir. 1996) (noting "the PEG provision permits, but does not require, franchising authorities to mandate PEG access").

¹⁰³ 47 U.S.C. § 531(a) (emphasis added).

"Consequently, any rights regarding the use of public access channels are not created by § 531, but stem from franchise agreements between cable operators and franchising authorities." ¹⁰⁴

The Cable Act does impose a single obligation — a so-called "basic service tier" requirement — applicable to any PEG programming that a franchising authority might require in a franchise. Specifically, the Act provides that cable operators must include any PEG programming on "a separately available basic service tier to which subscription is required for access to any other tier of service." Cable companies that are subject to federal rate regulation must place PEG programming, along with other categories of programming specified in the Cable Act, on their basic service tier — namely, the most widely subscribed and cheapest package of programming a cable operator offers subscribers. Indeed, even this provision has been read as permissive, rather than mandatory: as the Commission has noted, franchising authorities and cable companies may opt out of this requirement by "permit[ting] carriage [of PEG programming] on another tier" in a franchise. 106

Congress's aims in enacting a narrow basic-service-tier requirement for PEG programming were two-fold: Congress sought to ensure, first, that — at least in the absence of effective competition — PEG programming would be widely available on the tier of programming to which *all* cable subscribers have access; and, second, that PEG programming would be available as part of a package of programming that, absent effective competition,

 $^{^{104}}$ Leach v. Mediacom, 240 F. Supp. 2d 994, 998 (S.D. Iowa 2003), $\it aff'd$, 373 F.3d 895 (8th Cir. 2004).

¹⁰⁵ See 47 U.S.C. § 543(b)(7)(A)(i); 47 C.F.R. § 76.920 ("Every subscriber of a cable system must subscribe to the basic tier in order to subscribe to any other tier of video programming or to purchase any other video programming.").

¹⁰⁶ Report and Order and Further Notice of Proposed Rulemaking, *Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992 – Rate Regulation*, 8 FCC Rcd 5631, ¶ 160 (1993) ("1993 Order"); Lansing Pet. at 11 (acknowledging this point).

would remain subject to rate regulation even after the rates for other tiers of cable programming had been deregulated. 107

The text and structure of the Cable Act make clear that it was these concerns that animated Congress's enactment of the basic-service-tier PEG requirement. The 1984 Cable Act had led effectively to the deregulation of all cable rates. In the face of soaring cable prices, Congress adopted a comprehensive regime of rate regulation in the 1992 Cable Act. The basic service tier was a key piece of Congress's regulatory scheme — codified at 47 U.S.C. § 543(b) — because it represented the only tier of cable programming that would remain subject to regulation after the sunset of rate regulation for the upper tiers in 1999. The 1992 Cable Act thus required the Commission "by regulation" to "ensure that rates for the basic service tier are reasonable" and that such rates should not exceed "the rates that would be charged for the basic service tier" if the cable operator "were subject to effective competition." To ensure that PEG programming — and certain other categories of programming — would be available to the widest base of subscribers and on a rate-regulated tier, Congress required that PEG programming be "provide[d]" on "a separately available basic service tier to which subscription is required for

¹⁰⁷ See 47 U.S.C. § 543(c)(1).

¹⁰⁸ *Time Warner Entm't Co. v. FCC*, 56 F.3d 151, 187-88 (D.C. Cir. 1995) (noting that "[t]he 1984 Act ultimately resulted in the deregulation of cable rates in approximately 97% of franchises in the United States"); H.R. Rep. No. 102-628, at 30-31 (finding that, under the standard for rate regulation in the 1984 Cable Act, "cable systems in approximately 96 percent of all communities were not rate regulated").

¹⁰⁹ See Time Warner Entm't, 56 F.3d at 174 (noting that Congress enacted rate regulation in the 1992 Act in response cable rates increasing "almost 3 times" the rate of inflation) (internal quotation marks omitted); H.R. Rep. 102-628 at 32-33 (finding soaring cable rates since the 1984 Cable Act, which Congress found not to be "justified economically").

¹¹⁰ See id. 47 U.S.C. § 543(b); id. § 543(c)(4) (regulation of upper tiers of programming "shall not apply to cable programming services provided after March 31, 1999").

¹¹¹ *Id.* § 543(b)(1).

access to any other tier of service."¹¹² The Cable Act's definition of "tier," moreover, drives home the point that Congress's concept of a "tier" was *economic* in nature: a tier is a "category of cable service . . . for which a *separate rate* is charged by the cable operator."¹¹³

The legislative history of the 1992 Cable Act strengthens the view that the basic-service-tier PEG requirement was meant only to ensure that PEG programming would be provided as part of a package of programming to which all cable customers subscribe and on a rate-regulated tier. As explained in the very House Report on which petitioners rely, by requiring that PEG "channels be available to *all* cable subscribers on the basic service tier," Congress ensured that PEG programming would be available "at the lowest reasonable *rate*." This Commission has previously described Congress's intent underlying the basic-service-tier requirement in the very same terms: "Congress determined that PEG access channels should be provided to *all* subscribers in the cable context by including PEG access channels on the basic tier."

In sum, the basic-service-tier PEG requirement imposes on cable operators a duty to include PEG programming on their most widely subscribed package of programming (thereby making PEG programming available to all subscribers), not to charge more for access to PEG programming, and to provide such programming on a tier that would be subject to rate regulation beyond 1999, at least in the absence of effective competition. Federal law imposes no further PEG obligations.

¹¹² *Id.* § 543(b)(7)(A).

¹¹³ *Id.* § 522(17) (emphasis added).

¹¹⁴ Lansing Pet. at 9 (quoting H.R. Rep. No. 102-628, at 85; emphases added).

¹¹⁵ Second Report and Order, *Implementation of Section 302 of the Telecommunications Act of 1996 – Open Video Systems*, 11 FCC Rcd 18223, ¶ 153 (1996) ("Open Video Systems *Order*") (emphasis added).

2. Although AT&T is not a cable operator under federal law, let alone a cable operator subject to rate regulation, its PEG product complies fully with the basic-service-tier PEG requirement. AT&T's PEG programming is available to *all* AT&T U-verse TV service subscribers on Channel 99. ¹¹⁶ Channel 99, in turn, is provided as part of AT&T's basic package of programming (U-Basic)¹¹⁷ — that is, on "a separately available basic service tier to which subscription is required for access to any other tier of service." AT&T, moreover, does not charge its subscribers more for access to PEG programming on any tier of service it offers, and such programming is provided on a tier that would be subject to federal rate regulation were AT&T a cable operator and were AT&T providing U-verse TV service in a franchise area where it was not subject to effective competition. Because the Cable Act requires nothing more, AT&T's PEG product fully complies with the basic-service-tier PEG requirement. ¹¹⁹

This Commission's past treatment of PEG rules with respect to new video delivery systems demonstrates both the narrowness and the flexibility of federal PEG requirements. In 1996, the Commission faced the questions whether and how PEG requirements applied to open video system ("OVS") operators. Under the Communications Act, the Commission was required to apply certain regulations to OVS operators that were applicable to cable operators, including

 $^{^{116}}$ See Whitehead Decl. ¶ 10, 24.

¹¹⁷ See id. ¶ 10.

¹¹⁸ 47 U.S.C. § 543(b)(7)(A).

¹¹⁹ Petitioners' argument that basic-service-tier PEG requirement "is substantive, and not just a category of labels," accordingly misses the point. Lansing Pet. at 16. AT&T does not take issue with the suggestion that the basic-service-tier PEG requirement is substantive: absent a contrary agreement in a franchise, PEG programming must generally be made available on a "tier to which subscription is required for access to any other tier of service." 47 U.S.C. § 543(b)(7)(A). This requirement *is* substantive and cannot be avoided simply by calling something a "basic tier service" when it is not. As explained in the text, however, the substance of the basic-service-tier PEG requirement is minimal and it no way speaks to the qualities or functionalities that a cable operator provides for PEG programming offered on the basic service tier.

PEG requirements under section 531. 120 Certain commenters, including ACM, therefore urged the Commission to enforce PEG requirements on OVS operators in precisely the same manner as PEG requirements applied to cable companies — notwithstanding the markedly different underlying technologies for delivering video programming — by "requiring that [OVS] operators establish the equivalent of a basic programming tier." The Commission firmly rejected the call to apply a legacy PEG model to new services, emphasizing that OVS operators "should have the *flexibility* to determine how all subscribers will receive PEG access channels" and stating that OVS operators have "the *discretion* to decide how best to accomplish" the goal of providing their subscribers with access to PEG programming in light of the "particular technical configuration" of the OVS system. The Commission explained that giving OVS operators "flexibility will permit" them "to provide PEG access channels in an efficient manner" while also fulfilling the basic-service-tier PEG requirement.

On reconsideration, the Commission reaffirmed its decision that, to extent a local franchising authority requires PEG access, "PEG access channels should be provided to *all subscribers*, but . . . open video system operators should have the discretion to determine how best to accomplish this. As stated in the *Second Report and Order*, this flexibility will permit the operator to provide PEG access channels in an efficient manner while not diminishing the provision of the PEG access channels to the community." The OVS decisions thus make clear

¹²⁰ See id. § 573(c)(1)(B).

¹²¹ Open Video Systems Order ¶ 153.

¹²² *Id.* (emphasis added).

¹²³ *Id*.

¹²⁴ Third Report and Order and Second Order on Reconsideration, *Implementation of Section 302 of the Telecommunications Act of 1996 – Open Video Systems*, 11 FCC Rcd 20227, ¶ 140 (1996).

that the purpose of the Commission's PEG rules is to ensure that all subscribers have access to PEG programming — not to ensure that all programming is provided in an identical manner — an objective that AT&T's PEG product readily fulfills notwithstanding the fact that AT&T is not subject to PEG obligations at all. Furthermore, those decisions emphasize the flexibility and discretion that should be given to new entrants to comply with any applicable legacy regulations.

Similarly, in 1992, the Commission "modif[ied] [its] rules to enable local telephone companies to participate in the video marketplace through video dialtone." In doing so, the Commission acknowledged that some commenters proposed that the Commission structure "federal video dialtone policy" so as to impose a "public, educational and governmental (PEG) access requirement." The Commission "decline[d]," however, "to impose . . . federal PEG access requirements upon local telephone companies." The Commission emphasized that a regulatory framework for this new means of providing video programming should "further the objective of regulatory flexibility" because, in light of the dynamic nature of video dialtone services and architecture, video dialtone should be allowed to "develop in accordance with market needs and technological innovations rather than according to Commission mandate."

In addition, as explained, the Commission has declined to impose PEG obligations on DBS providers at all.¹²⁹ In doing so, the Commission explained that "DBS is a relatively new entrant attempting to compete with an established, financially stable cable industry" and that

¹²⁵ Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking, *Telephone Company-Cable Television Cross-Ownership Rules*, *Sections 63.54-63.58*, 7 FCC Rcd 5781, ¶ 1 (1992).

¹²⁶ *Id.* ¶ 40.

¹²⁷ *Id.* ¶ 44.

¹²⁸ *Id.* ¶ 45.

¹²⁹ *See supra* p. 25.

imposing "[a]dditional obligations on DBS providers" — such as PEG — "might hinder the development of DBS as a viable competitor to cable." The Commission also explained that "[i]mposing the [PEG] regulations . . . would divert DBS providers' channel capacity away from the provision of local-into-local service and effectively negate the Commission's efforts to create a competitive MVPD market by limiting the ability of DBS to compete with cable and offer more consumer choices." ¹³¹

The same needs for flexibility, discretion, and technological innovation apply fully to AT&T's evolving IP-based network. The Commission's past treatment of OVS operators, video dialtone providers, and DBS providers supports rejecting petitioners' call here for the Commission reflexively to apply legacy cable PEG requirements to AT&T's nascent U-verse TV service. AT&T should be afforded both the flexibility and discretion to determine how best to provide PEG programming subject to the constraints and opportunities presented by the technical configuration of AT&T's IP-based network. The marketplace, of course, will ultimately determine whether AT&T provides a PEG product that satisfies consumers.

3. Petitioners' arguments for why AT&T violates the basic-service-tier PEG requirement lack merit. There can be no reasonable dispute that AT&T's PEG product fully complies with the requirement that PEG programming be made available as part of the most widely subscribed package of programming. Faced with this undeniable fact, petitioners have invented an entirely novel interpretation of the Cable Act's basic-service-tier PEG requirement: according to petitioners, consumers would not perceive AT&T's PEG programming to be in the

¹³⁰ Section 25 Order \P 60.

 $^{^{131}}$ Second Order on Reconsideration, *Implementation of Section 25 of the Cable Television Consumer Protection and Competition Act of 1992*, 19 FCC Rcd 5647, \P 43 (2004).

¹³² See supra pp. 35-36.

same "'category of cable services'" as other basic service tier programming, and AT&T therefore is failing to provide PEG programming on the basic service tier as required by federal law. 133 Petitioners are wrong.

As we have explained, the basic-service-tier PEG requirement embodies Congress's intent that PEG programming be provided as part of the package of programming that all subscribers receive, that subscribers not be charged more for access to PEG programming, and that PEG programming be included among those programs that are subject to rate regulation in the absence of effective competition. ¹³⁴ A U-verse TV service subscriber can access PEG programming on Channel 99 on all U-verse TV systems (as part of U-Basic — the package of programming that the subscriber is effectively required to purchase before purchasing any other tier of programming from AT&T), and the subscriber does not pay more for PEG programming. It is *those* characteristics that define the basic service tier, and it is accordingly *those* characteristics that matter from the perspective of consumers. That some consumers might notice variations in signal quality or functionality between PEG programming and other programming provided on the basic service tier — an allegation that, in any case, petitioners have overblown and on which they have provided no evidence — simply would not affect the conclusion that AT&T's PEG programming is offered and available to consumers as part of AT&T's basic service tier. 135

¹³³ Lansing Pet. at 11 (quoting 47 U.S.C. § 522(17)).

¹³⁴ *See infra* pp. 32-35.

¹³⁵ Petitioners' reliance on a letter of the House Appropriations Subcommittee from 2008, see Lansing Pet. at 12-23, does not provide any evidence as to the meaning of the 1992 Cable Act's basic-service-tier PEG requirement. See Sullivan v. Finkelstein, 496 U.S. 617, 631-32 (1990) (Scalia, J., concurring) (criticizing attempt to "smuggle into judicial consideration legislators' expressions not of what a bill currently under consideration means" but "of what a law previously enacted means"; "[a]rguments based on subsequent legislative history, like arguments based on antecedent futurity, should not be taken seriously, not even in a footnote").

B. Petitioners Are Wrong That Federal Law Imposes a Non-Discrimination Obligation

Petitioners' argument that AT&T is impermissibly discriminating against PEG programming is also based on an unfounded interpretation of federal law. Petitioners argue that federal law imposes a strict non-discrimination obligation with respect to all programming that is offered on a basic service tier¹³⁶ and that AT&T's PEG product runs afoul of this non-discrimination obligation because AT&T's PEG programming purportedly varies from other programming in terms of quality and functionality.¹³⁷ But apart from the serious factual problems with these claims,¹³⁸ this line of argument fails because federal law simply does not impose a rule that all programming on the basic tier must be provided in the same manner.

Petitioners' non-discrimination principle cannot be found in the text of the Cable Act. As explained above, the core of the basic-service-tier PEG requirement is that cable operators provide PEG programming on their most widely subscribed package of programming at no additional charge. AT&T's PEG product readily satisfies those conditions, as explained above. There is *nothing* in the text or structure of the Cable Act to suggest that all video programming and/or networks carried as part of the basic service tier must be provided in the same manner as all other programming. This Commission recognized this point when it concluded that new video providers should have "discretion" and "flexibility" in how to provide PEG programming in light of the technical configuration of their video distribution systems.

¹³⁶ See Lansing Pet. at 12.

¹³⁷ *See id.* at 13-23.

¹³⁸ See infra Part V.

¹³⁹ *See supra* pp. 32-35.

¹⁴⁰ See supra pp. 35-36.

¹⁴¹ *See supra* pp. 36-39.

That the Cable Act refers to providing PEG "channel capacity" does not, contrary to petitioners' argument, support a conclusion that the Cable Act embodies a non-discrimination rule as between programming provided on a basic service tier. As we explain below, AT&T does provide "channel capacity" for PEG programming, and there is no basis in law or logic to construe that straightforward requirement to mean that AT&T must provide all programming on the basic service tier in precisely the same manner.

Without any foundation for a non-discrimination principle in the text or structure of the Cable Act, petitioners place substantial reliance on legislative history. But the legislative history offers no support for petitioners' theory. Petitioners argue, for example, that Congress, in enacting the 1984 Cable Act, anticipated that PEG channels would further "democratic principles" and advance "basic First Amendment" aims. Yet, at that time, Congress merely allowed franchising authorities to require PEG channels: Congress did not impose even a rudimentary basic-service-tier requirement. The legislative history of the 1984 Act thus cannot be read to inform the meaning of the basic-service-tier requirement enacted in 1992. Beyond that, the fact that Congress wanted to promote PEG programming begs the question of how PEG programming would be provided, and nothing in the scattered bits of legislative history quoted by petitioners supports the sweeping PEG rules petitioners seek to impose on AT&T here.

Nor does the legislative history of the 1992 Cable Act support petitioners' view of federal law. Petitioners insist, for example, that the legislative history shows that Congress "paid particular attention to the role and function of PEG channels," but that, too, fails to support any

¹⁴² 47 U.S.C. § 531(a)-(c).

¹⁴³ See ACM Pet. at 23-24.

¹⁴⁴ See infra pp. 51-52.

¹⁴⁵ Lansing Pet. at 7.

argument that Congress intended to require that PEG programming be provided in a particular way. 146 Petitioners place great emphasis on a statement that PEG programming should be available to "all community members on a nondiscriminatory basis." But that language is a description of Congress's understanding that PEG channels serve as an outlet for citizens, underserved communities, and others to *provide* programming to the viewing public (as the modern equivalent of a speaker's soap box) — and that all *members of a community* typically will have non-discriminatory access to PEG channels, usually without charge, to express themselves. To ensure that the maximum number of subscribers would have access to this rich variety of speakers, Congress required PEG channels to be made available to all cable subscribers on the basic service tier at the lowest reasonable rate. In other words, the reference to "nondiscrimination" in the House Report has nothing to do with any requirement that all programming or networks provided on the basic service tier be provided in an identical manner. The full context of the House Report relied upon by petitioners makes that abundantly clear:

PEG programming is delivered on channels set aside for community use in many cable systems, and these channels are available *to all community members* on a nondiscriminatory basis, usually without charge. *Public access provides* ordinary citizens, non-profit organizations, and traditionally underserved minority communities an opportunity to provide programming for distribution *to all cable subscribers*. . . . Governmental channels allow the public to see its local government at work, thus contributing to an informed electorate, which is essential to the proper functioning of our democratic form of government. PEG channels serve a substantial and compelling government interest in diversity, a free market of [ideas], and an informed and well-educated citizenry. PEG access provides an effective opportunity *for all citizens to contribute to*, and benefit from the information age, and enables communities to take advantage of cable's broadband capabilities. Because of the interests served by PEG channels, the Committee believes that it is appropriate that such channels be *available to all cable subscribers* on the basic service tier and at the lowest reasonable rate. ¹⁴⁸

¹⁴⁶ *Id.* at 8.

¹⁴⁷ *Id.* (quoting H.R. Rep. No. 102-628, at 85); see also ACM Pet. at 25.

¹⁴⁸ H.R. Rep. No. 102-628, at 85 (emphases added).

And, as we have explained, Congress sought to achieve the objective of making such programming available to all subscribers by making sure that, to the extent PEG programming is required at all, PEG channels would be included among the programming package received by all subscribers — namely, the basic service tier. Therefore, setting aside petitioners' selective quoting of the House Report, nothing in the Act or the legislative history of the Cable Act supports the view that Congress intended to impose any obligations relating to the manner in which cable operators provide PEG programming — apart from the obligation to provide such programming to all cable subscribers on the basic service tier.

C. Even Were Petitioners' Understanding of the Substance of the Basic-Service-Tier Requirement Correct, the Requirement Does Not Apply to AT&T Where It Is Subject to Effective Competition

As we have explained, the basic-service-tier requirement was a key part of the 1992 Cable Act's rate-regulation regime set forth in section 543. Congress understood, however, that rate regulation and related regulatory intervention in the marketplace was necessary to respond to the particular harm of soaring cable prices resulting from near monopoly conditions. Congress made many of the rate regulation provisions of section 543 — including section 543(b) — inapplicable to cable operators once competition took hold. As the D.C. Circuit has put it, "in

¹⁴⁹ Petitioners are also wrong to assert that AT&T has "single[d] out PEG programming for discriminatory and uniquely inferior treatment." ACM Pet. at 30. Because of the technical configuration of AT&T's network (*i.e.*, that AT&T's network allows programming insertion only on a DMA-wide basis) and because PEG programming is typically produced only for a single municipality, AT&T provides a DMA-wide PEG product on Channel 99. AT&T has *not* elected to place PEG programming on Channel 99 *because* of its status as PEG programming. Indeed, in the future, AT&T plans to provide commercial programming through similar technology. *See* McCarthy Decl. ¶ 7. All of this demonstrates the unfounded nature of petitioners' reckless accusation that AT&T is seeking to create a "ghetto for programming that AT&T would rather not provide on its main system." Lansing Pet. at 13 n.7; *see also id.* at 14 (asserting that AT&T is sending a "message" that PEG programming is not important enough for the basic service tier while ignoring the benefits of AT&T's PEG "solution" as well as the technical and economic constraints that have shaped the product).

¹⁵⁰ *See supra* pp. 32-35.

the 1992 Cable Act Congress expressed a clear preference for competition rather than rate regulation," by requiring that section 543(b) sunset when effective competition emerged. This Commission has accordingly explained that the basic-service-tier requirement in section 543(b)(7) is a "rate regulation requirement[] that sunsets once competition is present in a given franchise area." Because AT&T is the new entrant in every franchise area of an incumbent cable operator in which it has rolled out its U-verse TV service, and thus subject to effective competition, the Cable Act's rate regulation regime, and the basic-service-tier requirement (as well as the obligations that petitioners read into that requirement) in particular, does not apply to AT&T.

Recognizing this problem with their petitions, petitioners argue that the basic-service-tier PEG requirement is "not a *rate* regulation requirement." They are incorrect. *First*, the basic-service-tier requirement's location in section 543(b) is important structural evidence that the requirement pertains to rate regulation. As the D.C. Circuit has said, section 543(b) "generally focuses upon regulating basic tier rates of systems not facing effective competition." Indeed, in *Time Warner Entertainment*, the D.C. Circuit held that the anti-buy-through provision in section 543(b)(8)(A) was "inextricably intertwined" with the basic-service-tier requirement in section 543(b)(7), which, the D.C. Circuit held, "*clearly applies only to systems not subject to effective competition*." That holding is binding here.

¹⁵¹ *Time Warner Entm't*, 56 F.3d at 187.

¹⁵² DTV Must Carry Order ¶ 102; see also Memorandum Opinion and Order, Flinn Broadcasting Corp. v. Knology Cable, 18 FCC Rcd 1680, ¶ 6 n.18 (2003).

¹⁵³ Lansing Pet. at 5 n.9.

¹⁵⁴ *Time Warner Entm't*, 56 F.3d at 192.

¹⁵⁵ *Id.* (emphasis added).

Second, as noted above, the legislative history of the 1992 Cable Act establishes that Congress's decision to require that PEG programming be provided on a basic service tier was inseparable from Congress's concerns about rates charged for PEG programming. The legislative history explains that the 1992 Act "require[d] cable operators to offer a basic service tier, consisting, at a minimum, of all broadcast signals carried on the cable system and [PEG] access channels. Tongress also explained that the Commission would be "required to establish a formula for determining the maximum price cable operators may charge for this tier. By requiring the Commission to regulate rates "charge[d] for a required basic tier," which would include "[PEG] access channels," based on a "cost-based formula," the 1992 Cable Act would "provide consumers meaningful protection from unreasonable cable rates. In that way, contrary to petitioners' claims, the requirement that PEG programming be provided on a basic service tier went hand in hand with the rate regime established in section 543(b).

Petitioners' reliance on this Commission's finding that the so-called negative-option billing requirement in a different subsection — section 543(f) — does not sunset in the face of effective competition is misplaced. Section 543(f) states that "[a] cable operator shall not charge a subscriber for any service or equipment that the subscriber has not affirmatively requested by name." The Commission has held that this provision, "[u]nlike *most of the other provisions of [section 543]*... is not limited in its application to those cable services and cable

¹⁵⁶ See supra p. 35.

¹⁵⁷ H.R. Rep. No. 102-628, at 26.

¹⁵⁸ *Id*.

¹⁵⁹ *Id.* at 34.

¹⁶⁰ See Lansing Pet. at 9 n.5 (asserting "the basic service tier requirement is independent of rate regulation"); Dearborn Pet. at 14-15.

¹⁶¹ See Lansing Pet. at 9 n.5; Dearborn Pet. at 14-15.

operators subject to rate regulation."¹⁶² The Commission explained — based in part on the unique legislative history of that provision — that section 543(f) "is more in the nature of a consumer protection measure rather than a rate regulation provision."¹⁶³ None of those considerations apply to the basic-service-tier PEG requirement in section 543(b)(7): the D.C. Circuit has held, and this Commission has agreed, that section 543(b)(7) is a rate regulation provision, and the text and legislative history of the 1992 Act, discussed above, make clear that Congress's decision to include PEG programming on the basic service tier was "inextricably intertwined" with rate regulation concerns. ¹⁶⁴ In a competitive marketplace, market discipline, not regulatory intervention, will ensure that video providers offer PEG programming that consumers demand.

For those reasons, the Commission should deny the petitions on the ground that section 543(b) — and the broad and sweeping PEG rules that petitioners purport to divine from section 543(b) — are inapplicable to AT&T where AT&T is a new entrant providing competition to the entrenched, incumbent cable provider.

Third Order on Reconsideration, *Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992*, 9 FCC Rcd 4316, ¶ 127 (1994).

 $^{^{163}}$ Id. ¶ 128; see id. ¶ 127 n.81 (citing legislative history that the prohibition would also apply to billing for individual channels, which were never subject to rate regulation).

¹⁶⁴ See supra p. 32-35. Nor does this Commission's rule that the default assumption is that a silent franchise agreement requires carriage of PEG programming on a basic service tier suggest that the basic-service-tier PEG requirement persists when effective competition emerges, as petitioners argue. See Dearborn Pet. at 16 (citing 1993 Order ¶ 160). In fact, the order that petitioners cite states that "services offered by cable systems are divided into several categories" — including the "basic service tier" — "[f]or purposes of allocating" rate regulation "responsibility" among the FCC and franchising authorities. 1993 Order ¶¶ 2-3. That further confirms the close relationship between the basic-service-tier PEG requirement and rate regulation.

D. Petitioners Are Wrong That AT&T Exercises Editorial Control Over PEG Programming

Petitioners also argue that certain technical features of AT&T's current PEG product — namely, that AT&T cannot "pass through closed captioning, [secondary-audio programming] and other video related information" — violate the prohibition in the Cable Act on a cable operator exercising "editorial control" over PEG programming. Apart from the fact that this concern is being addressed now by AT&T and will be resolved as final technological issues are resolved, the argument is frivolous.

The Cable Act bars cable operators from censoring or otherwise dictating the content of PEG programming. Specifically, federal law prohibits cable operators from "exercis[ing] any editorial control" over PEG programming other than to regulate "obscenity, indecency, or nudity." That precludes cable operators from editing the content of programming — by, for example, choosing programming to advance cable operators' own political message or commercial interests. That AT&T's PEG product is currently not *technically* capable of passing through closed captioning or secondary-audio programming has nothing to do with AT&T's *editorial* judgment regarding the *content* of PEG programming anymore than an analog cable system's inability to distribute digital cable programming constitutes an editorial judgment about digital programming. The Cable Act's prohibition on the exercise of "editorial control" over PEG programming therefore has no application here. 168

¹⁶⁵ ACM Pet. at 30 (citing 47 U.S.C. § 531(e)).

¹⁶⁶ See infra pp. 62-63.

¹⁶⁷ 47 U.S.C. § 531(e).

¹⁶⁸ In any case, as AT&T explains below, it is working diligently to resolve these technical issues and expects to be able to carry through closed captioning for PEG programming within the next few months, with secondary-audio programming capabilities coming thereafter. *See infra* pp. 62-63.

E. Petitioners Are Wrong That AT&T's PEG Product Violates the Commission's Closed-Captioning Rules

Petitioners also argue that AT&T's PEG product is in violation of the Commission's closed-captioning rules. Once again, petitioners are mistaken. AT&T's PEG product currently provides open captioning — meaning that AT&T provides captioned messages for all viewers when provided with such captioning by a PEG programmer. The Commission has been clear that open captioning satisfies the Commission's rules: "We also will permit video programmers to count towards compliance with our rules any program that is open, rather than closed captioned. Open captioning provides the same information as closed captions but includes this information as part of the primary video signal instead of carrying the captions on line 21 of the VBI. Thus, the information is available to all viewers without decoding." The Commission's rules establish that open captioning is lawful as well.

Petitioners argue that, although the use of open captioning is allowed, that does not mean that AT&T may, consistent with 47 C.F.R. § 79.1(c), refuse to pass through closed captioning of PEG programming provided with such capability. This line of argument is unavailing. *First*, the plain text of the Commission's rules broadly state that "[o]pen captioning . . . may be used in lieu of closed captioning." Although petitioners argue that the exception is intended to apply only to "programmers," not to allow distributors to make use of open captioning when a

 $^{^{169}}$ See McCarthy Decl. ¶ 27.

¹⁷⁰ Report and Order, *Closed Captioning and Video Description of Video Programming*, 13 FCC Rcd 3272, ¶ 83 (1997) ("1997 Order").

 $^{^{171}}$ See 47 C.F.R. \S 79.1(e)(2) ("[o]pen captioning . . . may be used in lieu of closed captioning").

¹⁷² *See* ACM Pet. at 36.

¹⁷³ 47 C.F.R. § 79.1(e)(2).

programmer provides closed captioning,¹⁷⁴ nothing in the text of the Commission's rules supports that restrictive reading. The rule as written is *unqualified*, both in terms of what category of regulated parties can invoke it (*i.e.*, programmers and distributors) and of what "use[s]" open captioning can be put for purposes of complying with the Commission's rules. Therefore, AT&T complies with any closed-captioning pass-through obligations under the Commission's rules when it "use[s]" "[o]pen captioning" "in lieu of closed captioning."

Second, this issue will soon be moot, and thus it provides no basis for a declaratory ruling here. Third-party software constraints are what currently prevent AT&T from passing through closed captioning for PEG programming, and those constraints will soon be resolved with the release of new software. It is important to emphasize, however, that when the Commission enacted a closed-captioning pass through requirement, the Commission assumed that such a requirement would not be burdensome because "all distributors have the technical ability to pass through captioning." Until a scheduled software release in mid-2009, AT&T has not had "the technical ability to pass through [closed] captioning" for PEG programming. Because this issue will soon become moot, this Commission should exercise its discretion not to address this issue now. That is especially the case given that the Commission's pass-through rules recognize that the Commission may "waiv[e]" the rules when they impose an "undue burden" because AT&T's IP-based system is not currently capable of passing through closed captioning for PEG programming and because a solution is on the horizon, as well as the fact that AT&T currently

¹⁷⁴ ACM Pet. at 40.

¹⁷⁵ *See* McCarthy Decl. ¶ 27; *infra* pp. 62-63.

 $^{^{176}}$ 1997 Order ¶ 85. Because AT&T is not a cable operator, 47 C.F.R. § 76.606 does not apply, as petitioners argue. See ACM Pet. at 34-35.

 $^{^{177}}$ 47 C.F.R. § 79.1(d)(2); *see also id.* § 79.1(f)(2) (defining "undue burden" to mean "significant difficulty or expense").

provides open captioning, there is good cause for the Commission to reject the petitions and effectively to waive any applicable pass-through requirement (assuming AT&T is not in compliance with it now) until AT&T's network (or more accurately, the set top box) is capable of passing through closed captioning for PEG programming.

F. Petitioners Are Wrong That AT&T Does Not Provide PEG Channel Capacity

Petitioners also argue that AT&T's PEG product violates the Cable Act because "AT&T's PEG product . . . fails to provide . . . 'channel capacity.'" According to petitioners, AT&T does not provide a "channel" as that term is defined in the Cable Act and thus, petitioners contend, AT&T cannot provide "channel capacity" within the meaning of the Cable Act. ¹⁷⁹ Petitioners' argument is unpersuasive.

To begin with, any requirement to set aside "channel capacity" in the Cable Act applies only to cable operators. The Cable Act allows, but does not require, "[a] franchising authority" to "establish requirements in a franchise with respect to the designation or use of channel capacity" for PEG programming, and defines a "franchise" to mean any authorization to "construct[] or operat[e] a cable system." Because the question of whether AT&T is a cable operator that provides cable service over a cable system is not properly resolved in this proceeding, petitioners' request for declaratory relief on this issue should be rejected. 182

Beyond that, even assuming that AT&T could be classified as a cable operator, petitioners' argument would make no sense. The Cable Act allows franchising authorities to

¹⁷⁸ ACM Pet. at 31.

¹⁷⁹ *Id.*; see also Lansing Pet. at 2.

¹⁸⁰ 47 U.S.C. § 531(a).

¹⁸¹ *Id.* § 522(9).

¹⁸² See supra Part I.

require that "channel capacity" be set aside for PEG programming. The purpose of that requirement is to ensure that subscribers can access and view PEG programming on a rate-regulated tier. AT&T has set aside capacity on its IP-based system for PEG programming. AT&T's PEG product is accessible on Channel 99 — part of AT&T's basic service tier (U-Basic), and available to all of AT&T's U-verse TV service subscribers. A conclusion that AT&T has not set aside "channel capacity" based on an outmoded, inapplicable definition of what constitutes a "channel" ignores the purpose of the Cable Act's PEG provisions and would risk imperiling a new, innovative technology for no reason at all. ¹⁸³

V. AT&T'S PEG PRODUCT IS SUPERIOR IN MANY WAYS TO CABLE'S PEG OFFERING, AND THE PRODUCT CONTINUES TO IMPROVE AND EVOLVE

The petitions should also be denied because they fail to account for the distinct advantages that AT&T's innovative PEG product offers to consumers. Furthermore, AT&T is working tirelessly to address many of the remaining technical concerns identified by petitioners. There is no basis for this Commission to intervene now and to apply legacy regulations to AT&T's nascent and still evolving U-verse TV service.

A. AT&T's PEG Product Has Many Advantages Over Cable PEG Programming

Petitioners raise a number of criticisms of the way in which AT&T provides PEG programming over its IP-based service platform, but in the end, petitioners' primary complaint is that AT&T does not provide PEG in precisely the same manner as do cable services. They complain that AT&T uses an IP-based application to provide PEG programming at a single location (Channel 99) on its channel guide rather than listing each PEG channel separately on the

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¹⁸³ Indeed, to the extent that AT&T does not provide "channel capacity" as that term was understood when Congress enacted section 531, that is only because Congress could not have foreseen IP-based television service (which also supports the conclusion that AT&T's U-verse TV service should not be deemed a "cable service" to begin with).

main guide. Petitioners argue that AT&T's IP-based application is a "distinctly inferior" "webcast" system that impermissibly discriminates against PEG programming in terms of accessibility, ¹⁸⁴ signal quality, ¹⁸⁵ and functionality. ¹⁸⁶ Petitioners' complaints are demonstrably false.

1. Although there is no legal basis for these claims, ¹⁸⁷ this entire line of argument overlooks the fact that the traditional PEG model applied to cable operators is ill-suited to the next-generation, IP-based platform and network architecture that AT&T has deployed to provide U-verse TV service. The traditional model for providing PEG programming evolved for legacy cable networks, over which cable operators broadcast their entire stream of video programming (including PEG programming) to all subscribers using discrete channels of RF spectrum for each programming stream (explaining the traditional concept of channel discussed above). These networks relied on set top boxes (for digital cable) or tuners in a television (for analog cable) at the customer's premises to tune to particular frequencies in order to view specific channels of

¹⁸⁴ Lansing Pet. at 13-16 (claiming that AT&T's method of delivering PEG programming makes it complicated and time consuming to locate and access); ACM Pet. at 10-13 (same).

¹⁸⁵ See Lansing Pet. at 16, 21 (claiming that AT&T's PEG programming consists of "low quality Internet webcasts" with "degrad[ed] picture quality, format, sound quality and the synchronization of audio and video," which are inferior to the signals of other channels on the basic service tier). Lansing further asserts that, because AT&T specifies that PEG video signals must be encoded and provided to AT&T with a 480x480 resolution, the resulting picture is square, with an aspect ratio of 1x1, that has to be cropped or stretched to fit TV screens, with resulting distortion or loss of picture. See id. at 21 n.17; see also ACM Pet. at 19-20 (claiming that AT&T's PEG programming is encoded at a bit "rate lower than is required to produce a standard quality TV signal," and at a low resolution that will result in a loss of horizontal resolution).

¹⁸⁶ See Lansing Pet. at 17-21 (claiming that AT&T's PEG programming has impaired emergency alert functionality, raises barriers to access for the visually impaired, cannot be recorded on DVRs to allow time-shifted viewing, and does not allow pass through of closed captioning and secondary-audio programming); ACM Pet. at 23-30.

¹⁸⁷ See supra Part IV.

video programming.¹⁸⁸ These networks were deployed in an era of monopoly franchises typically granted by municipalities and were thus designed to provide video programming on a municipality-specific basis, with PEG programming provided on discrete channels of the RF spectrum inserted in each municipality downstream from the cable headend. This architecture allowed cable operators to insert PEG content on the same RF frequency (using the same channel numbers) for each municipality offering PEG content in a DMA.¹⁸⁹

AT&T's next-generation IP-based platform and network architecture operate very differently. Perhaps most importantly for present purposes, AT&T's method for aggregating and delivering video programming differs fundamentally from cable companies' practices. Unlike cable networks — which has traditionally collected video programming, including PEG programming, at a cable headend in *each* municipality — AT&T's network collects all video programming at a single VHO that serves an entire DMA; no content is inserted downstream from the VHO. Therefore, AT&T provides all PEG programming generated in a particular DMA to all subscribers in that DMA. Consequently, AT&T simply cannot allocate a limited number of channels on its programming guide for PEG channels, and reuse them for each municipality throughout the DMA, as can cable companies.

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Instead, AT&T's PEG product operates as an application that integrates content obtained over a secure IP-based link (such as a stream of live community video) and delivers that content over the U-verse TV platform to the subscriber's television via the U-verse TV set top box.

¹⁸⁸ See Whitehead Decl. ¶¶ 13, 20; de Veciana Decl. ¶ 4.

¹⁸⁹ See Whitehead Decl. ¶¶ 18, 34. Because of this local insertion capability and ability to reuse channel numbers, a cable company could use channel 21 to broadcast PEG programming in Los Angeles, while the same channel 21 could be used to broadcast different PEG programming in Anaheim.

 $^{^{190}}$ See id. ¶¶ 35-42.

¹⁹¹ See id. ¶¶ 36-42.

AT&T's choice of Channel 99 as the location on its U-verse TV channel guide dedicated solely to PEG programming was deliberate — it is a prime location that bridges the local line up with the national line up, which begins at channel 100. 192 Customers that subscribe to *any* U-verse TV package can tune to Channel 99 to access PEG programming or they can go straight to PEG programming by selecting a special Government Education and Public Access Button (on screen) on the main menu of their program guide — no other channel on AT&T's system has this featured placement on AT&T's main menu. 193

Figure 1: U-verse TV Main Menu



And because AT&T carries PEG programming on Channel 99 throughout its footprint, customers will always know where they can find PEG programming no matter where they are.

After selecting Channel 99, a viewer presses a button on their remote control to access PEG programming available in the DMA.¹⁹⁴ The selection of Channel 99 launches AT&T's

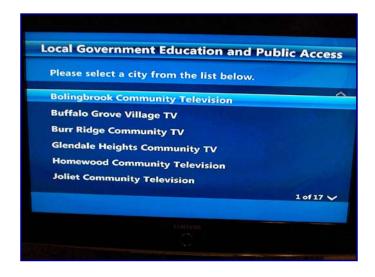
¹⁹² *See id.* ¶ 26.

¹⁹³ See id.

 $^{^{194}}$ See McCarthy Decl. ¶¶ 8-9.

PEG application, which organizes and displays PEG content: customers see an alphabetical listing of all the municipalities with PEG programming available in their DMA.

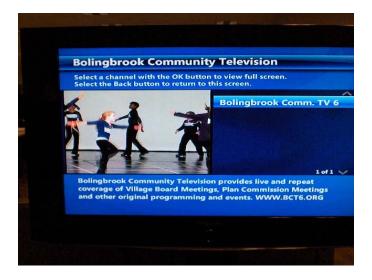
Figure 2: Listing of Municipalities with PEG Programming in the DMA



Upon selecting a city from that menu, a customer can choose from a list of programming channels available for that city. While watching PEG programming, customers can choose to display a navigational bar on-screen to select different PEG programming channels at any time, allowing a seamless change from one PEG program to another.

¹⁹⁵ See id. ¶ 10.

Figure 3: PEG Programming with Navigational Bar Displayed



Alternatively, customers can hide the navigational bar and watch full-screen PEG programming. 196

Figure 4: PEG Programming Displayed as Full Screen



Where a municipality is the source of video, as is the case for most PEG content, AT&T typically receives the PEG feed by interconnection directly at a municipality location or at the headend of the local cable incumbent (where PEG may be aggregated). The PEG feed, often

 $^{^{196}}$ See id. \P 12.

received in an analog standard format, is connected to an "encoder" that digitizes, encodes, and compresses the feed and streams it in an IP format to an Internet Mediation Device at the VHO that serves the municipality. Subscribers who select and receive PEG content receive it as a media stream that their television displays using a version of the Windows Media Player application developed by Microsoft. When PEG is selected, a video application and elements of the Windows Media Player are opened at the U-verse TV service subscriber's set top box for display of the selected content. AT&T's PEG product provides an administrative tool that allows each municipality or its designee to create text (*e.g.*, labels or titles) describing each stream of PEG content for display on AT&T's PEG application. Municipalities thus can describe their programming channel however they choose, including using the channel number that may appear on the incumbent cable operator's programming guide (for example, "Channel 26 – City Council").

Although AT&T's PEG product is an IP-based application, it is not an Internet webcast system, as petitioners mistakenly suggest.²⁰⁰ With respect to the compression standards used to encode the signal, the resolution at which programming is presented, and the transport facilities and protocols used to deliver the programming, PEG and commercial programming are treated similarly on AT&T's network.²⁰¹ Once PEG programming is provided to AT&T's network, it does not traverse the public Internet. Typically, moreover, PEG programming is delivered

¹⁹⁷ *See id.* ¶ 5.

¹⁹⁸ *See id.* \P 6.

¹⁹⁹ See AT&T's PEG Programming Overview, ACM Pet., Ex. F.

²⁰⁰ See Lansing Pet. at 21.

 $^{^{201}}$ See de Veciana Decl. ¶¶ 22, 25.

directly from the PEG programmer's location using premium circuits to AT&T's backbone. AT&T's PEG product therefore operates like a managed network, or "walled garden," service. Moreover, AT&T's PEG product does not transmit PEG programming at a low bit rate using "available only" capacity, as used by YouTube and other webcast services. Whereas YouTube encodes content at approximately 300 Kbps, PEG content on U-verse TV is encoded and transmitted at a bit rate of 1.25 Mbps. Beyond that, as explained more fully in the accompanying declaration of Professor Gustavo de Veciana, there is no security or quality of service with webcasts that have to pass through multiple networks to get to a user; PEG channels, like commercial channels on AT&T's managed network, are subject to security controls and quality of service. 204

Similarly, petitioners are mistaken in claiming that PEG programming is encoded at a bit "rate lower than is required to produce a standard quality TV signal." Both AT&T's PEG and commercial programming is encoded using newer and more efficient compression standards than the compression standard used by digital cable operators, which means that a lower encoding bit rate is required than that used by cable companies. ²⁰⁶

²⁰² See McCarthy Decl. ¶ 20.

 $^{^{203}}$ See de Veciana Decl. \P 11.

 $^{^{204}}$ See id. \P 23.

²⁰⁵ ACM Pet. at 19.

²⁰⁶ See de Veciana Decl. ¶ 11; see also Merrill Lynch, "Everything over IP," at 30 (March 12, 2004), available at http://www.vonage.com/media/pdf/res_03_02_04.pdf (stating that DVD quality video can be delivered using Windows Media Player 9 (the compression standard used by AT&T to deliver PEG programming) "at around 1 Mbps," which is less than the encoding bit rate currently used by AT&T for its PEG programming).

For these reasons, petitioners' comparison of AT&T's PEG product to YouTube is highly misleading. ²⁰⁷

2. It is true that AT&T's unique network architecture and method of providing PEG programming may provide a different experience for viewers of PEG programming. But that difference does not justify the regulatory intervention that petitioners seek. Indeed, in multiple ways, AT&T's PEG product is superior to that offered by cable operators from the perspective of subscribers, PEG producers, as well as municipalities.

First, rather than providing subscribers access only to the community video programming of the municipality in which they live, AT&T's PEG product offers subscribers access to the full range of PEG programming in a DMA at a single, easy-to-find location. As a consequence, PEG subscribers have access to far more content than subscribers of traditional cable systems, and they can keep track of news, programming, and events in surrounding communities where they may work or family members may live.

Second, and relatedly, PEG programming on U-verse TV is distributed to much larger audiences than on traditional cable operators because distribution of PEG programming is not limited by municipal boundaries.²⁰⁹ This allows PEG programmers to spread their messages to audiences to which they would not otherwise have access, thereby furthering the speechenhancing goals of both the Cable Act and the First Amendment.²¹⁰

²⁰⁷ See Lansing Pet. at 21 (claiming that AT&T requires PEG programmers "to downgrade their high-quality TV signals into low-quality Internet webcasts" and is "providing PEG programming in a 'You-Tube' Internet format").

²⁰⁸ See supra pp. 10-11; Whitehead Decl. ¶¶ 26-29.

 $^{^{209}}$ Whitehead Decl. ¶¶ 28-29.

²¹⁰ See supra Part III.

Third, AT&T's model for providing PEG programming means that municipalities generally may offer a greater number of PEG channels compared to PEG programming offered on cable networks. If a local community wants to launch a new or additional PEG channel on a cable network, for example, it typically would need to replace existing PEG programming.²¹¹ Because of the advantages afforded by AT&T's IP-based system, AT&T usually can carry additional PEG programming streams (provided the PEG programmer is willing to incur the additional costs of such streams), which can be added to that municipality's PEG channel line-up on Channel 99.

Fourth, because all PEG programming is accessible on the same channel number on AT&T's program guide across AT&T's territory, AT&T is able to promote Channel 99 nationally so that subscribers will know exactly where to find community programming on AT&T U-verse TV, regardless of where they live. AT&T already has initiated such a promotional campaign, offering information about Channel 99 on the air on Buzz Channel 300, Attention Channel 400, and the Help Channel (Channel 411) on U-verse TV; on-line through the U-connect website (uverse.att.com/uconnect) and the U-talk discussion board (utalk.att.com). AT&T has also advertised PEG channel availability through the AT&T U-verse TV member enewsletter, promotional flyers, and within AT&T's monthly entertainment magazine — "U-guide." Additionally, AT&T makes available to subscribers a free instructional video clip on its video-on-demand menu that demonstrates how they can access and use the PEG product, including helpful information regarding Channel 99. 214

²¹¹ See, e.g., Whitehead Decl. ¶ 30.

 $^{^{212}}$ See id. ¶¶ 26-27.

²¹³ *See id.* ¶ 27.

²¹⁴ See id.

Finally, AT&T's PEG product could enable a municipality that does not already do so to provide PEG content over the Internet, at marginal cost, because all of the municipality's PEG content will have been converted to a digital form widely used for delivery over the public Internet.²¹⁵ A municipality thus can make available digitized PEG content on its municipal website so that anyone, anywhere, with access to the public Internet can view it. AT&T's PEG product thus facilitates the ability of cities to make their PEG programming accessible to more viewers.

All of these advantages of AT&T's PEG product belie petitioners' assertions that AT&T's PEG product is inferior to traditional PEG programming. These advantages also underscore why the Commission should decline petitioners' request to force AT&T's new, innovative, and evolving IP-based system to provide PEG programming in exactly the same way as legacy cable operators do.

B. AT&T Is Continually Making Improvements to its PEG Product, and Most of the Concerns Raised in the Petitions Are Either No Longer Applicable or Soon Will Be

As with any new and innovative technology, AT&T's PEG product has evolved substantially since it was first introduced, and it is continuing to improve. AT&T has made significant improvements to the functionality and quality of the PEG product and will continue to do so. Indeed, the specific concerns raised by petitioners with AT&T's current PEG product have either already been addressed through software upgrades that will soon be rolled out or are issues that AT&T has raised with its software vendor for inclusion in a future software release. ²¹⁶

²¹⁵ *See id.* ¶ 32.

 $^{^{216}}$ In addition to the issues addressed below, petitioners also question AT&T's ability to provide emergency alerts. *See* Lansing Pet. at 17-18. But AT&T does provide emergency alerts as part of its U-verse TV service. *See* Whitehead Decl. ¶¶ 49-51. Petitioners make no suggestion that this manner of providing emergency alerts violates federal requirements.

1. Closed Captioning and Secondary-Audio Programming

Petitioners raise concerns with AT&T's ability to provide closed captioning and secondary-audio programming. ²¹⁷ But these concerns will soon be resolved and provide no basis for regulating AT&T's U-verse TV service.

As explained above, AT&T currently provides open captioning for its PEG programming. AT&T and Microsoft, however, are working on software that would run on the subscribers' set top boxes to recognize captions provided in closed-caption format, thus allowing the viewer to toggle between viewable (open) captions and hidden (closed) captions. AT&T and Microsoft also are working to enable AT&T's PEG product to accommodate secondary-audio programming, a limitation that currently results from the Microsoft software used by AT&T.

For closed captioning, AT&T plans to send a new software release to subscribers' set top boxes once related updates are completed in AT&T's VHOs. This release will enable closed captioning for all of AT&T's PEG programming. This release will also enable a first update to allow secondary-audio programming for PEG programming (with future release allowing a full implementation of this capability). AT&T expects to have these functions tested and approved by the end of the second quarter of 2009, with field deployment beginning in some markets before the end of the second quarter of 2009. The ability to provide secondary-audio

²¹⁷ See Lansing Pet. at 18-19; ACM Pet. at 33.

²¹⁸ See McCarthy Decl. ¶ 27.

 $^{^{219}}$ See id. ¶ 28.

²²⁰ See id. ¶ 29. The specific timing of the release is subject, of course, to any unexpected technological impediments identified during testing. See id.

programming should also address petitioners' concerns with access by the visually impaired by enabling "descriptive audio." ²²¹

Apart from undermining petitioners' call for Commission regulation in these areas,

AT&T's willingness to work toward resolving closed-captioning and secondary-audio

programming issues is powerful evidence that AT&T takes seriously its commitment to provide

PEG programming accessible to all subscribers over its IP-based systems.

2. PEG Video Quality

Video quality for all AT&T U-verse TV programming — including PEG programming — is another issue that AT&T is constantly monitoring and assessing. AT&T is proud of the quality of all of its video programming, including its PEG product. PEG video quality is the product of many factors, some of which are beyond AT&T's control such as the quality of the video feed that AT&T receives from PEG programmers (which, in turn, is influenced by the production equipment used by PEG programmers). 223

With respect to those factors that AT&T can control, AT&T is constantly looking for ways to enhance the quality of all its PEG programming — a process that is made easier by the innovations possible on an IP-based platform. For example, in May 2008, AT&T increased the bit rate for PEG programming from 1.0 Mbps to 1.25 Mbps in all markets where PEG programming is provided.²²⁴ That increase in bit rate has enabled AT&T to improve PEG

²²¹ See Lansing Pet. at 19-20.

²²² See id. at 13-16, 21-23; ACM Pet. at 19-20.

²²³ See McCarthy Decl. ¶¶ 16-17.

²²⁴ See id. ¶ 19.

programming resolution, by moving from 320x240 to 480x480, which is the same resolution for U-verse TV's standard definition commercial programs on linear channels. ²²⁵

AT&T has every incentive to continue to work hard to provide a PEG product that satisfies consumer demand. If AT&T's PEG programming does not satisfy the needs of its subscribers, they can easily switch to alternative providers. That is how a free market works, and there is no basis for the regulatory intervention that petitioners seek.

3. PEG Programming Access Times

Petitioners also complain about the amount of time it can take to access PEG programming, and they argue that the delay justifies this Commission's regulation of AT&T's service. Petitioners' concerns with channel access times are outdated and overblown. AT&T has taken several steps to address concerns with PEG programming access times, and it will continue to make improvements in the future.

First, as explained above, ²²⁷ AT&T has added a direct link to Local Public Education and Government programs on the main menu of the electronic program guide to facilitate quick access to PEG programming and to ensure that subscribers are aware of AT&T's PEG product. ²²⁸ No other network or programming (commercial or otherwise) enjoys this type of prominent placement on AT&T's program guide. ²²⁹

²²⁵ See id. Petitioners' claim that AT&T's 480x480 resolution results in a distorted screen is fundamentally confused. See Lansing Pet. at 21 n.17. A resolution is distinct from an aspect ratio — which depends on the size of a television and is regulated via the television. The 480x480 resolution thus does not necessarily require a "square" box. *Id.*

²²⁶ See Lansing Pet. at 14-15.

²²⁷ *See supra* p. 55.

²²⁸ See McCarthy Decl. ¶ 24.

²²⁹ See Whitehead Decl. ¶ 26.

Second, since AT&T has launched U-verse TV service, AT&T and Microsoft have made great strides in reducing PEG programming access time. When AT&T's PEG product was first rolled out in 2006, the Microsoft browser was not resident on the set top box; instead, when a PEG program was requested, the set top box was required to interact with the VHO to access the browser.²³⁰ Microsoft and AT&T worked to improve the efficiency of set top box operations so that the browser could be resident in the set top box itself, without the need (and corresponding time delay) for loading the browser from the VHO. This change has greatly reduced browser launch times and thus decreased the time it takes for a subscriber to go from a PEG program to other programming.²³¹ Indeed, a 2008 release of software reduced PEG programming load times roughly in half.²³² AT&T and Microsoft are working on further software upgrades planned for release in the second quarter of 2009 that, as tested, would allow PEG programming to be launched in approximately two seconds, roughly the same time it takes for a subscriber to call up the electronic program guide or main menu.²³³

Petitioners' concerns with PEG programming access time thus provide no basis for the regulatory intervention that petitioners seek.

4. *DVR Capability*

Finally, petitioners' concerns with AT&T's inability to provide DVR functionality for PEG programming are misplaced. AT&T's basic tier of service — U-Basic — does not include DVR functionality for any of its programming; in other words, there is no discrimination

²³⁰ See McCarthy Decl. ¶ 25.

²³¹ See id.

²³² See id.

 $^{^{233}}$ *See id.* ¶ 26.

²³⁴ See Lansing Pet. at 20-21; ACM Pet. at 15-16.

against PEG programming, because AT&T does not provide a DVR for any of the programming on AT&T's basic service tier. A U-verse TV subscriber, however, may use other recording devices, such as a VCR or a TiVo, to record a PEG program. To do this, a subscriber can turn to a particular PEG channel, set a VCR or TiVo to begin recording, for example, an hour later, and the program will be recorded at the set time so long as the TV remains on and the channel is not changed.²³⁵

Although AT&T continues to explore means of offering time-shifting functionality for PEG programming and otherwise to expand its subscribers' access to PEG programming, ²³⁶ it is not clear that AT&T's subscribers want or require DVR capability for PEG programming. AT&T's subscribers are not shy about commenting on the quality or functionality of AT&T's Uverse TV service, yet AT&T has seen few subscriber demands for the ability to use their DVRs to record PEG programming. In any case, PEG programmers are the ones responsible for providing information necessary to populate channel guides (which are generally used by DVRs to record programming), and many of them fail to provide any detail about what specific programming is available. So, even if AT&T's DVRs were capable of recording PEG programming in precisely the same way that they record the commercial channels available on higher tiers of service, the absence of sufficient information provided by PEG programmers would, in many cases, render such DVR functionality of little practical use. To the extent that AT&T's subscribers demand the ability to record PEG programming with their DVRs in the same way that they can record other programming, AT&T will have to provide that functionality or risk losing those subscribers to other video providers.

²³⁵ See McCarthy Decl. ¶ 30. Because AT&T's set top boxes time out after approximately eight hours when there is no subscriber interaction, there is some limit to this solution. See id. However, this feature has nothing to do with PEG programming in particular.

²³⁶ See id.

CONCLUSION

For the foregoing reasons, the petitions should be denied.

Respectfully submitted,

/s/ Geoffrey M. Klineberg

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Counsel for AT&T

March 9, 2009

CERTIFICATE OF SERVICE

I, hereby certify that, on this 9th day of March 2009, I caused copies of the foregoing Comments of AT&T Opposing Petitions for Declaratory Ruling to be served upon each of the following by first-class mail, postage prepaid:

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City of Dearborn, Michigan et al.

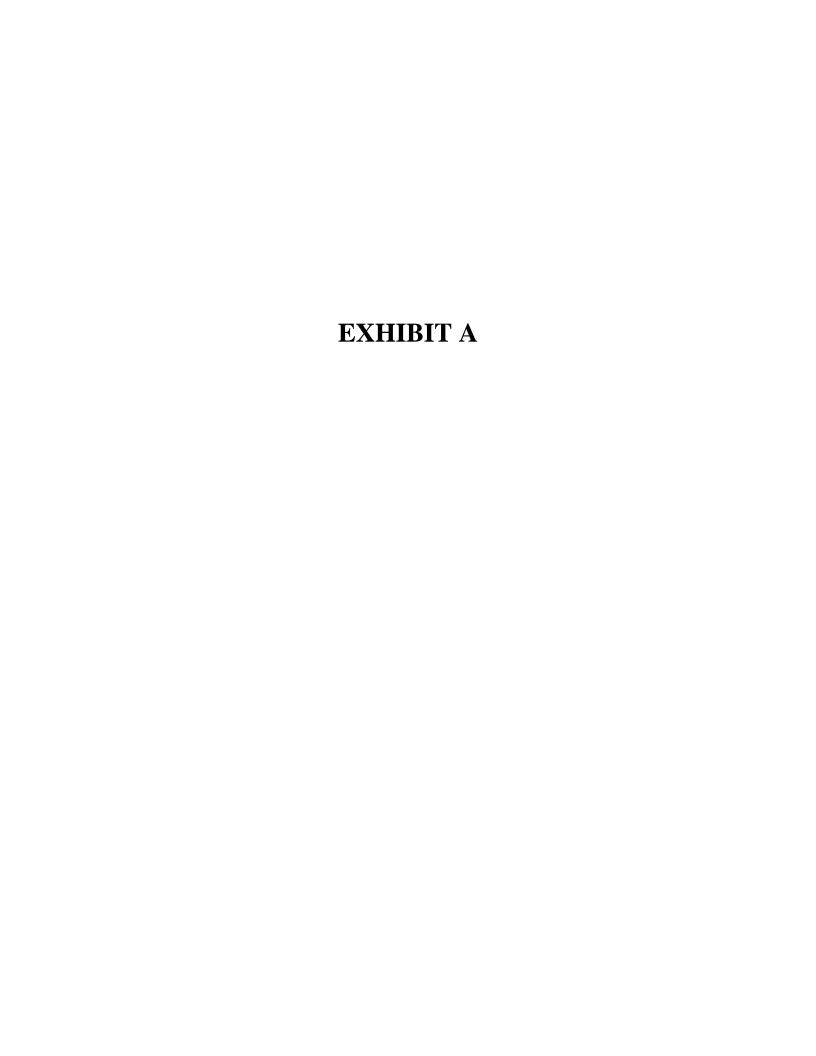
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/s/ Geoffrey M. Klineberg

Geoffrey M. Klineberg



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

In the Matter of

Petition for Declaratory Ruling of the City of CSR-8127

Lansing, Michigan, on Requirements for a MB Docket No. 09-13
Basic Service Tier and for PEG Channel

and the Commission's Ancillary Jurisdiction

Capacity Under Sections 543(b)(7), 531 (a),

Under Title I

In the Matter of

Petition for Declaratory Ruling of Alliance for CSR-8126 Community Media, et al., that AT&T's MB Docket No. 09-13

Method of Delivering Public, Educational, and Government Access Channels Over Its

U-verse System Is Contrary to the

Communications Act of 1934, as Amended,

and Applicable Commission Rules

In the Matter of CSR-8128

Petition for Declaratory Ruling Regarding

MB Docket No. 09-13

Primary Jurisdiction Referral in City of Dearborn

et al. v. Comcast of Michigan III, Inc. et al.

DECLARATION OF PAUL WHITEHEAD IN SUPPORT OF AT&T'S OPPOSITION TO PETITIONS FOR DECLARATORY RULING

I, PAUL WHITEHEAD, declare as follows:

1. <u>Title, responsibilities, and relevant experience</u>. I am employed by AT&T Services, Inc. as Executive Director of Video Planning. In this position, I manage the technology team responsible for the Project Lightspeed initiative. Project Lightspeed is an initiative by AT&T to upgrade its existing network to make it more robust, thereby allowing AT&T to provide new, innovative Internet Protocol ("IP") based services, in addition to the traditional telecommunications services it currently provides. While my major focus is on the video network planning, the organization I work for also does the network planning for the data

and voice services. My specific IP video responsibility includes the architecture for the Super Hub Offices, the local Video Hub Offices, and the home network that includes its own specialized routing functionality and Set Top Boxes.

- 2. I have a Bachelor of Science System Engineering degree and a Master of Science System Engineering degree from the University of Virginia, both awarded with honors. For twelve years, from 1982 to 1994, I worked at Bell Communications Research/Bell Labs, including as the Director of Digital Transport Engineering Tools and, from 1988 to 1994, as Director of New Product Development, Business Services Planning. In the latter position, I had a new product development team that focused on new business services, primarily data and video services, assessed the business prospects and technical challenges for potential new services, and developed technical specifications and standards for new services.
- 3. From 1994 to 2000, I worked at US WEST Communications/Qwest in a number of positions related to the technical development of advanced and broadband technologies. At US WEST, I oversaw the design, debugging, and deployment of one of the first switched digital video networks deployed in the U.S. The system was eventually deployed to over 50,000 subscribers.
- 4. From 2001 to 2003, I was a consultant to a number of cable companies, telephone companies, equipment vendors, and others regarding the development of video and data technology strategies. I also served as VP of Strategic Assessment & Project Incubator Group for CableLabs, where I led a team that consulted with cable companies conceiving next-generation access architectures, home networking, and transition strategies to an all-digital cable network.

- 5. I have personal knowledge of the matters stated below, except where stated on information and belief, in which case I believe them to be true. I make this declaration in opposition to the petitions for declaratory ruling filed by the City of Lansing and the Alliance for Community Media, et al. ("the Petitioners").
- 6. The evolution of AT&T communications network. AT&T has provided communications services to business and residential customers in its service footprint for over a century. Initially, AT&T's services consisted of local exchange voice services transmitted over twisted-pair copper wires placed on overhead poles or in underground conduit. These facilities provided a switched, two-way, point-to-point network in which voice traffic is routed through a switching center or "central office" ("CO").
- 7. Over time, AT&T's twisted-pair copper telephone lines have been augmented, upgraded and, for some portions of AT&T's network, replaced with fiber optic lines. A fiber optic system uses light pulses to transmit information through fiber lines constructed of glass or plastic. With continued improvements, fiber has become an alternative to copper because it offers more "bandwidth," i.e., it is able to carry large amounts of communications traffic at high speeds.
- 8. In the late 1990s, AT&T began deploying "broadband" Internet access capabilities in its network to allow customer access to the Internet through high-speed connections, such as Digital Subscriber Line ("DSL") service. Initially that capability was delivered by equipment placed in AT&T's central switching offices. AT&T later expanded its broadband capabilities by deploying fiber optic facilities farther out into its network. As part of that work, remote terminals were placed closer to customer homes, and then fed by fiber optic cable as a way to provide broadband capability to a greater number of residents. Connections

from remote terminals to most residential and business subscribers—the so-called "last mile"—have been achieved with the same twisted-pair copper wire facilities over which legacy public switched telephony has been delivered. Original asymmetric digital subscriber line service had a maximum data speed of 6 Megabits per second ("MBPS").

- 9. Project Lightspeed. Beginning in 2004, AT&T has been engaged in "Project Lightspeed," a capital improvement plan to accelerate AT&T's upgrade of its network. Under this initiative, AT&T is extending fiber optic facilities from the remote terminals to a point within a neighborhood (a "node" commonly called Video Ready Access Device) that is closer to customer premises. By extending fiber closer to customer homes, AT&T is able to further enhance the bandwidth of its network, allowing it to provide a bundle of new communications services. Many of these communications services are now provided using Internet Protocol ("IP"), the method by which data is transmitted from one computer to another on the Internet. With this technology, transmission of information to and from a customer is done via digital packets. Through the advanced DSL service implemented with the "Lightspeed" network improvements, AT&T now can offer to customers maximum data rate of 19, 25, or 32 MBPS, allowing AT&T to offer a variety of new IP-enabled services, including high speed Internet access, "voice over IP" ("VoIP"), and a new IP video service that AT&T calls "U-verse TV." With this so-called "triple play" of Internet, voice, and video services, AT&T is now able to compete with the cable companies.
- 10. <u>AT&T's new U-verse TV service</u>. In late 2006, AT&T began rolling out its U-verse TV service in certain communities within its traditional local telephone service footprint.

 The service was later launched in additional markets, with ongoing plans to expand to other areas within its footprint. Over one million residents nationwide now subscribe to AT&T's U-verse

TV service. The "U-Basic" package, which is U-verse TV's equivalent to cable operators' basic tier, starts at \$19/month, which is less than what is charged by many cable companies.

- 11. AT&T expects to spend more than 8 billion dollars from 2005-2011 building the infrastructure (discussed below) to enable U-verse TV service. It has embarked upon a technologically ambitious program to offer truly "next generation" video capabilities that will evolve over many years.
- AT&T's U-verse technology. In order to deliver video service over its network, AT&T currently collects and maintains video programming at 47 regional "video hub offices" ("VHO") located across the country. Content is aggregated at a "Super Hub Office" (or "SHO") from a variety of national sources and then distributed over AT&T's backbone network to the VHOs. Each VHO serves a particular "Designated Marketing Area" ("DMA"), a term coined by Nielsen Media Research to refer to a group of counties that are covered by a specific group of televisions stations. Attached to this declaration as Exhibit A is a graphic depicting how U-verse TV is provided. Because AT&T provides its video programming on a DMA-wide basis, its programming guide and channel assignments are the same for all customers residing within the same DMA. For example, all subscribers within the Lansing DMA receive CBS at Channel 6, CNN at Channel 202, and ESPN at Channel 602.
- 13. Unlike cable or satellite television systems, AT&T's U-verse TV only provides to subscribers those video programs that are specifically requested by the viewer. This is a "client-server" architecture in which content is not provided to customers until they ask for it. When customers select a channel, a message is sent from the Set Top Box through AT&T's network to the VHO, to which the customer is assigned, requesting specific programming. In response, the requested programming is encoded, and then provided, via a two-way transmission, in an IP

packet format to the customer's Set Top Box where it is decoded and displayed on a television or other video device. This is a "switched" or "point-to-point" system in that programming is provided to a particular customer only when requested. The AT&T Internet Protocol television ("IPTV") system uses a "client-server" architecture in that all the available content is managed on content servers at the VHO but provided to subscribers ("clients") only upon their request. Traditional cable companies use a very different approach. Their "point-to-multipoint" approach is to "broadcast" all regularly available content simultaneously for delivery to the entire cable subscriber base connected to a serving office. Cable operators typically use coaxial cable to carry their video services to subscribers.

14. AT&T provides video, via a two-way transmission, in a digital, packet format, using compression and advanced modem technology developed specifically for U-verse TV, over a network where the "last mile" connections are largely copper wire originally designed to carry traditional telephone service. The same network architecture also provides subscribers with broadband capability that scarcely could have been imagined only a few years ago. U-verse TV video has a host of new interactive features. Because it operates using the Internet Protocol, it allows the TV to become part of the home network that interacts with the PC and Internet telephone services. AT&T's decision to use Internet Protocol will also allow it to achieve a convergence of technologies, with video content eventually available to customers over their televisions, PCs, and cell phones. AT&T's use of IP technology, which gives it the ability to provide to the subscriber only the specific content that the subscriber has requested, is also what allows AT&T to provide video service over a network that includes "last mile" elements with significantly less bandwidth than what is available to the cable operators. AT&T would not be

able to offer any reasonable form or amount of video service over its network if it employed the same technology and delivery methods as traditional cable television.

- 15. The following reasons also underlie AT&T's decision to enter the video market using switched video over its existing network. First, from an economic standpoint, providing switched video over its existing network allows AT&T to get U-verse TV to customers in its footprint quickly, which is critical as a new entrant in the competitive video marketplace.

 Second, switched video allows AT&T to send different advanced services into a customer's home, which is key as new applications come to market. Third, deploying switched video over the existing network minimizes customer disruptions as AT&T does not need to dig up customers' yards to install new facilities. Fourth, because AT&T is not building an overlay network, AT&T can manage one network in each distribution area. And fifth, the decision to use an all IP network for video enables AT&T to deliver video content to any IP-enabled device (e.g., PC, TV, mobile phone, PDA, laptop) and facilitates delivery of video content to AT&T customers where they are and to whatever device they choose.
- 16. Before moving on, however, it is important to understand the magnitude of AT&T's IPTV undertaking. AT&T's U-verse TV is the largest deployment of IPTV in the western hemisphere and is in the top five of IPTV deployments worldwide. And our current U-verse TV customers' viewing experience is top notch; in fact, a recent JD Power and Associates Reports consumer survey ranked U-verse TV first among video service providers in customer satisfaction. But we are even more excited about what the future will bring as improvements in IPTV technology will change the way our customers consume and interact with the content they select on U-verse TV.

- 17. AT&T's U-verse TV technology differs from the technologies used by broadcast and cable television providers. The technology that AT&T uses to provide its U-verse TV video service differs from broadcast and cable television. The original TV technology was analog broadcast television, which breaks an image into a sequence of lines that are transmitted over the airwayes and later reconstructed at the viewer's television receiver. The term "broadcast" refers to the one-way transmission of a television signal from the TV station to the viewers in a local metropolitan area. With analog broadcast television, every home within range of the transmission receives the same television signal. Multiple TV stations are able to transmit different video programs simultaneously without interfering with each other because each station is assigned a specific radio frequency ("RF") on the transmission band. Because the same broadcast TV signals go to all homes in a particular viewing area, broadcast TV requires that the viewer tune the TV receiver to select which broadcast TV channel to view at the TV receiver. Since broadcast TV signals are one-way from the transmitter to the home, there is no way for a viewer to request video programs from the transmitter, or request that broadcasters transmit only the particular program the viewer wishes to watch. Channel selection is accomplished by tuning the particular RF band associated with each numbered channel.
- 18. Another system commonly used to provide television today is cable television. Cable television is sometimes referred to as "CATV," an abbreviation for "Community Antenna Television," stemming from cable television's origins in the late 1940s in areas where over-the-air reception was limited by mountainous terrain. To alleviate this problem, large "community antennas" were constructed to receive the over-the-air signal, with coaxial cable then used to carry that signal from the antenna to a local cable TV office (called the "head-end") and ultimately to individual homes within a particular city or town. Today it is more common for

network providers to deliver content to the head-end office over the cable companies' network backbone, rather than through local antennas.

- 19. Cable television is similar to broadcast television in that both systems broadcast one-way video signals to viewers, and in both cases the same signals are simultaneously sent to numerous viewers such that all viewers receive the same video signals, even if their TV set is turned off. Likewise, in both instances selection among available programs is accomplished at the TV receiver. The chief difference between broadcast television and cable television is the medium the broadcaster uses to transmit its signals. Broadcast television stations use the airwaves, while cable television companies carry the video signals using antennas and coaxial cables.
- 20. In the traditional cable television system architecture, each analog video program is assigned a specific frequency, each 6-megahertz ("MHz") wide. These 6 MHz frequencies, or "channels," are essentially "stacked" one on top of another along the frequency spectrum used by the cable television system (e.g., channels 2, 3, 4, etc.). These channels are combined and then broadcast to each customer location over the coaxial cable. Attached to this declaration as Exhibit B is an illustration of the cable system, where the cable operator's entire channel line-up is simultaneously and continuously broadcast over the cable system into every subscriber's home. Each subscriber then uses a tuner at his or her Set Top Box (or incorporated into the TV, where "cable ready") to tune in and view a particular channel. Because of the way the cable network is designed, all video is delivered as a stream of linear channel blocks ("linear programming") broadcast on a one-way basis to the customer's home, delivered in the form of 6 MHz blocks of RF. The customer decides to watch a particular program by using the Set Top Box to tune to the frequency corresponding to the channel the customer wants to watch.

- 21. <u>Digital cable is still broadcast</u>. In more recent years, cable television systems have begun to use digital video channels to their customers. Typically, the content is compressed using the MPEG-2 standard. ("MPEG" refers to the Motion Picture Expert Group, a standards organization). Over digital cable, video streams are modulated onto RF carriers that continue to occupy the 6 MHz "blocks" originally assigned for broadcast channels and used for analog cable channels. Each such 6 MHz frequency block can carry 8-12 digital channels in the same space, allowing more channels to be carried. Digital cable, however, does not change the fundamental architecture of a cable system; it is still a broadcast system, with different programs selected by tuning to different frequencies.
- 22. AT&T delivers IP video over a switched network. The difference between IP video and cable digital video is the same as between IP video and analog cable—AT&T's IP video is a switched, two-way service, while both analog and digital cable are broadcast services. AT&T's U-verse TV customers can request an individual video selection, which then is switched (routed) to the requesting customer using the Internet-based IP addressing scheme. All digital cable channels are broadcast to each customer, in contrast. A digital cable customer does not communicate requests for regular programming to the cable company.
- 23. <u>U-verse TV PEG.</u> As Ms. McCarthy explains in detail at paragraphs 5 through 13 of her declaration, AT&T delivers PEG programming on U-verse TV by use of an application, which takes PEG signals that originate outside AT&T's IP network and displays them on subscribers' television screens once selected.
- 24. A subscriber selects PEG programming by turning to Channel 99. After the "OK" button is pressed on Channel 99, a viewer sees a "drop down" menu listing of all the cities with PEG programming available in the DMA. The guide lists the cities within the DMA in

alphabetical order, making it easy to locate any particular city. For example, while cable television subscribers in Lansing can only access PEG for Lansing, U-verse TV subscribers living in the Lansing DMA can obtain PEG not only for Lansing, but also for all other cities within their DMA such as East Lansing, Jackson, and Meridian Township. In addition, some cities have multiple PEG channels. AT&T makes available all PEG content for every city within each DMA. Once a customer selects a city from the Channel 99 drop down menu, she can then choose from a list of programming available for that particular city. In addition, while watching one PEG program, the viewer can display a navigational bar on the screen to select different PEG programming made available within that city. A video of the process described above can be accessed at the following link: http://www.attcorpcomm.com/video/U-verse/PEG/revised092208/.

- 25. AT&T's U-verse TV subscribers can receive PEG by using the same set top box that is used to obtain the lowest cost tier of service. Whether AT&T U-verse TV subscribers have an analog or digital TV, they are able to view PEG programming on U-verse TV by using the same set top box necessary to receive the lowest cost tier of U-verse TV service.
- 26. AT&T's PEG channel placement at Channel 99. Because AT&T's U-verse TV programming is provided on a DMA-wide basis, U-verse TV aggregates and provides the full range of PEG programming in a given DMA at a single, easy-to-find channel location. AT&T has designated Channel 99 for all U-verse TV subscribers as the location on its channel guide dedicated exclusively to PEG programming. Alternatively, customers can access PEG programming by selecting the "Local Government Education and Public Access" button on the Main Menu of the Electronic Program Guide. The placement of PEG on the Main Menu is significant, as *no other programmer* is listed there. Channel 99 is a logical location for PEG

programming, bridging the divide between the local station line up and the national channel line up, which begins at Channel 100.

- 27. AT&T has invested significant resources to ensure that consumers recognize that PEG programming is available on U-verse TV at Channel 99. AT&T has already conducted a comprehensive promotional campaign to notify U-verse TV subscribers that PEG content can be found on Channel 99. AT&T also promotes Channel 99 on the U-verse TV "Buzz Channel" (Channel 300) and the Help Channel (Channel 411). It will also be discussed online through the "U-connect" web site (uverse.att.com/uconnect) and the U-talk discussion board (utalk.att.com) and in print through promotional flyers and AT&T U-guide updates. There is also an instructional video available in the "help on demand" section of the Main Menu.
- 28. AT&T's method of carrying PEG has several benefits. First, the new service brings together programming from multiple municipalities within a DMA in one easy to remember channel location (Channel 99). This ensures a consistent, predictable experience across the U-verse TV platform; all U-verse TV customers will know exactly where to go for the available PEG programming in their area.
- 29. Second, PEG programs are available to much larger audiences because distribution is DMA-wide, rather than limited to town borders. In this way, AT&T's network makes PEG programs available to much larger audiences because distribution is not limited to town borders. As a result, U-verse TV subscribers will be able to keep track of events in surrounding communities, where the subscriber may work or attend school, or where family members and friends may live.
- 30. Third, the way in which AT&T provides PEG content on U-verse TV empowers PEG content providers to generate and provide more programming, and do so at a low cost in

comparison to how content is produced and delivered in a traditional cable environment. This is so because, unlike cable, AT&T does not cap the amount of PEG programming a city may provide. Thus, in addition to delivering the PEG programming that is currently provided by the incumbent cable operators in a city, AT&T will deliver additional PEG programming if a city would like to provide more content. For example, if the City of Chicago decided it wanted to provide a stream specifically for its Department of Cultural Affairs, it could do so and the stream would be added to the initial page a U-verse TV subscriber would see for the city's designated PEG programming. The city could repeat this for other unique content within the city (perhaps a stream that covers the street festivals that take place every week during the summer, along with other local content tied to its great neighborhoods).

- 31. Another example that is very common today is that a school district and a city council may share time on an incumbent cable operator's designated PEG channel. That arrangement may work fine, but AT&T's PEG product presents the opportunity for both the school district and the city council to have their own stream and to provide as much programming as they choose. The time and money associated with producing additional content would be entirely up to each entity. A school district, on the one hand, may elect to produce professional grade content. Another school district, on the other hand, may choose to utilize low cost consumer grade digital video cameras and editing equipment. It may allow students and teachers associated with a video production course at the high school to complete the bulk of the production work. But for AT&T's PEG product, neither entity had this choice in the past.
- 32. And because the programming will be digitized and encoded in a manner for use on AT&T's IP network, the school district can choose to host the same content on a server and link to it from its public Internet site so that anyone, anywhere with Internet access can view the

content. In practice, this means that U-verse TV subscribers in that DMA can watch a particular high school graduation on their TV, as well as the grandparents who have retired to Arizona who can watch the graduation on their computer (notably, the U-verse TV subscribers that watch the graduation on Channel 99 will have a dramatically better viewing experience than the grandparents because the PEG content on Channel 99 is displayed at the same resolution as standard definition commercial content on U-verse TV whereas a typical webcast over the public Internet is presented in a much different manner (*see* Mr. de Veciana's declaration at paragraph 23)).

- 33. At bottom, by use of AT&T's IP platform, cities have the opportunity to approach PEG programming in an entirely different and more robust way, and, as a result, there is potential to significantly increase the dissemination of diverse voices on a DMA-wide basis.
- U-verse TV deliver PEG programming differently. In a cable network, PEG is generally provided locally, so that only customers in a particular municipality receive the PEG content originated by that municipality. This reflects the architecture of the cable system and its historical evolution. Cable systems originally were built around community antenna and local "head-end" facilities served only particular communities. Over time, there has been substantial consolidation of cable providers, but the cable architecture retains local "head-ends" and so PEG signals are inserted locally in each municipal area and distributed downstream to subscribers in that community. Using these local physical insertion points, cable operators provide differing PEG content to each municipality. A block of channel numbers is reserved for PEG. These are "re-used" for PEG from one municipality to the next. As a result, residents of Lansing, for example, only receive PEG content for Lansing.

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- over AT&T's historical telephone network, as evolved; the video product is managed by regional VHOs that distribute all content on a DMA-wide basis. When AT&T receives community-specific PEG programming from local governments, or through an interconnection arrangement with an incumbent cable operator, this programming is converted into a digital IP stream, encoded for transport, and then provided, via a two-way transmission, as packetized product to the VHO that serves the same DMA as the source city. The VHO manages all the PEG programming received from local entities within the DMA. The VHO is responsible for further distribution to subscribers within the entire DMA. Because Lansing and Jackson, for example, are both within the same DMA, they are both served from the same VHO. In some areas, such as Los Angeles, Chicago, or San Francisco, many dozens of PEG channels may be available within a DMA.
- 26. It is not feasible for AT&T to deliver PEG via linear channels or use the same PEG channel numbers used by the cable incumbents. There are several important reasons why AT&T does not use linear channels for PEG and cannot use the same PEG channel numbers that are used by the cable incumbents. First, the limited random access memory in our current Set Top Boxes limits the number of distinct linear channels the U-verse Set Top Box can accommodate to [***BEGIN CONFIDENTIAL***] [***END CONFIDENTIAL***] linear channel content sources. In fact, due to current random access

memory limitations, we are already eliminating information we would otherwise like to provide in our U-verse guide's metadata field in order to make space for our last group of linear channel additions. In AT&T's larger DMAs, we already have plans to utilize all available linear channels; Chicago, for example, will pass [***BEGIN CONFIDENTIAL***]

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[***END CONFIDENTIAL***] channels this year. As a result, if AT&T were to dedicate a separate linear channel for every source of PEG programming within a particular DMA, it would require us to not carry other commercial programming at this time. Here are two examples to illustrate this point:

- CONFIDENTIAL***] [***END CONFIDENTIAL***] remaining linear channels are dedicated to meet competition in the video marketplace to add more HD channels as quickly as possible. Because there are 103 cities or towns within AT&T's video franchise footprint in the Los Angeles DMA, and it is safe to assume that the number of separate PEG channels would be even higher, there is not enough additional channel capacity to dedicate a separate linear channel for every source of PEG programming within the DMA and still provide a competitive video service
- 38. Another example is the San Francisco/Oakland/San Jose DMA, where there are 96 individual cities or towns within AT&T's video franchise footprint in that DMA. While some of the smaller towns do not offer PEG programming, other cities provide as many as seven PEG channels (*e.g.*, San Francisco, which offers PEG at cable Channels 26, 27, 29, 75, 76, 77, and 78). If 30 cities within this DMA provided three PEG channels (one public, one educational and one governmental), this alone would consume 90 of AT&T's U-verse TV linear channels in that DMA, thus significantly limiting the other channel offerings that AT&T could provide and reducing AT&T's commercial linear channel capacity to a point where it would not be able to offer a competitive service. Moreover, from a consumer viewing experience perspective, flipping through dozens of linear PEG channels on the Electronic Program Guide would not be desirable.

- 39. AT&T is working with Microsoft to eventually eliminate this Set Top Box random access memory limitation to linear channels. But there are other bottlenecks that I will discuss later that encourage AT&T's engineers to keep linear channel counts down as they can adversely impact the system in many ways.
- 40. Second, because AT&T's U-verse TV service is delivered on a DMA-wide basis, it is not feasible for AT&T to use the same linear channel numbers to identify PEG content as have been used by the cable companies. In a cable network, PEG is generally provided as a signal inserted locally in each municipality at the cable head-end office. Most cable operators set aside channel slots (6 MHz slots of RF) to accommodate PEG. For example, in Lansing, Comcast sets aside Channel 12 City of Lansing; Channel 15 Lansing Community College; Channel 16 Public Access; Channel 18 Michigan State University; Channel 19 Religious Access; Channel 20 Educational Access; and Channel 21 Lansing Public Schools. Those channel numbers can be reused in different communities.
- 41. With the ability to physically insert PEG programming locally, cable operators can provide different content on the same linear channel to different cities within the same DMA. For example, Comcast is able to deliver PEG programming provided by Sausalito, CA (and delivered only to Sausalito residents) at Channels 26, 77, and 78; Comcast also uses Channels 26, 27, 28, and 77 to deliver Oakland's PEG programming only to Oakland residents; and Comcast delivers Palo Alto's PEG programming only to Palo Alto on Channels 26, 27, 28, 29, 75, and 76. By contrast, in AT&T's case, all traffic is delivered from the VHO that serves the entire DMA. Because Sausalito, Oakland, and Palo Alto viewers all reside within the same DMA, they cannot each go to Channel 26 and find PEG programming for only their respective city. AT&T, however, has provided a reasonable solution: it locates all PEG programming at

one easily identifiable channel (Channel 99), with an alphabetical drop down menu listing every other city within the DMA that provides PEG programming.

- 42. AT&T cannot provide local insertion of PEG channels in order to "mirror" the channel placement of incumbent cable systems without a very costly, comprehensive reengineering of its U-verse TV network. The costs and disruption of such a re-engineering would inhibit AT&T's ability to bring this new, powerful, and flexible product to customers and would impact AT&T's ability to price its service competitively. To match PEG channel placement to that of cable incumbents, AT&T would be required to build local "VHOs" in literally hundreds of cities. This would require massive investment in new equipment such as content and application servers, routers, switches, firewall, and security devices, as well as both one-time and recurring investment in new physical facilities and in required power, heating and ventilation, and maintenance. It would not be practical, efficient or cost-effective for AT&T to attempt to construct the equivalent of local VHOs in literally hundreds of cities. While it is hard to put a precise cost figure without knowing the specifics of each city, it is clear that in a large city like Chicago the costs would be in the millions of dollars and could rise as high as ten million dollars. And, once again, from the customer's viewing perspective, this would result in a poorer viewing experience, as there would be less PEG located on separate channels throughout the guide.
- 43. Third, I am aware that it has been suggested that AT&T could create separate channel maps for each municipality and, thus, reuse linear channels by using software to map content based on where each subscriber lives. Because all PEG channels for all communities within a DMA exist simultaneously within the VHO within the DMA, our system would need to geographically segment the DMA along community boundaries and only show the PEG channels assigned to each community and in the appropriate channel slot. Theoretically, this would be

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accomplished by creating a unique channel map for each community. In fact, it would require two channel maps per community because AT&T already uses channel maps to hide adult channels. Therefore, each community would have a unique channel map for all channels as well as one that hides adult channels.

- 44. AT&T's current system supports up to [***BEGIN CONFIDENTIAL***] [***END CONFIDENTIAL***] channel maps. Software updates are planned to increase the number of channel maps available, but the actual number of maps supported will be determined only after thorough future testing of this still unreleased software. It is not feasible today to use channel maps in this manner for DMAs with more than two communities. Thus, this is not a viable solution today. And, once again, from the customer's viewing perspective, this would result in less PEG content located on separate channels throughout the guide.
- 45. It is important to keep in mind that as with any client server system in order to scale an IPTV network to serve a certain number of subscribers, at any given level of system capacity (servers, routers, etc.), there is a relationship between the number of end users (in AT&T's case, Set Top Boxes attached to a VHO server group), the amount of content presented to the end user, and the usability of the platform. Put differently, if there are too many customers or too much content, one runs the risk of overloading network capacity and slowing the service to a crawl. Thus, in order to scale the service to over one million subscribers, AT&T has had to make tradeoffs between end users and channel capacity to ensure service reliability, which contributes to the [***BEGIN CONFIDENTIAL***] [***END

CONFIDENTIAL***] limit and current channel map restrictions. This same issue impacts any client server design – for example a website that does not have sufficient server capacity getting overloaded by simultaneous hits.

- 46. AT&T and Microsoft continue to work very hard not only to push innovation in this space but also to roll the product out to customers, so that as many U-verse TV subscribers as possible can obtain the benefits of this new technology. But this practical point is important to keep in mind as what can happen in a test lab or even in a smaller rollout of IPTV is much different than the challenges AT&T faces bringing U-verse TV to over one million subscribers across its 22-state footprint. There is a very real tradeoff between channel counts and servers AT&T has to purchase, manage, and maintain. Thus, for certain of our server farms, if one increases the channels carried you must increase the number of servers purchased to serve the same number of customers. Again, putting aside the issue of trying to match the incumbent PEG channels numbers, moving PEG content from Channel 99 to numerous liner channels would still cost AT&T millions of dollars in a city like Chicago.
- 47. NTSC. Next, there has been some confusion over U-verse TV and NTSC signals. U-verse TV is an all-digital system. NTSC standards generally refer to analog TV broadcast transmission standards. The National Television System Committee was a group established by the Federal Communications Commission in 1940 to establish a standard protocol for analog television broadcast transmission and reception in the United States. Analog television encodes a television picture and the associated sound information and then transmits it by a broadcast signal that increases and decreases in the same way as the picture being transmitted (i.e., "analogously"), creating fluctuations in color and brightness.
- 48. Although these NTSC analog standards will soon be obsolete with the conversion to digital TV, AT&T's U-verse TV network interfaces with many content providers (both commercial and PEG) who still produce their content according to NTSC standards today. For both commercial content providers and PEG providers, AT&T's U-verse TV system requires the

conversion of that analog signal into a MPEG-4 digital stream of 480 x 480 resolution. We use the exact same resolution for both our commercial and PEG channels. In the case of putting PEG on U-verse TV, IP encoders are capable of receiving, processing, and then transporting a local PEG feed, whether received as an NTSC analog signal or in an accepted digital format. In doing so, AT&T is lawfully converting the signal to a format that is compatible with its IP network; it is not – to be clear – exercising any editorial control over the content of that signal that is ultimately delivered to the U-verse TV subscriber.

- 49. <u>Emergency Alert System.</u> The FCC determined that its EAS rules were applicable to all MVPDs, including telephone operators offering video services, and AT&T complies with all aspects of those rules including delivering the alerts on PEG channels.

 AT&T's EAS solution is designed to ensure that customers receive urgent public safety information as quickly as possible and will deliver National/Presidential alerts and State/Local alerts.
- 50. National/Presidential EAS Alerts. AT&T provides national/Presidential alerts on all content sources, including local broadcast channels, national channels, and other AT&T Uverse TV features such as Video on Demand, Digital Video Recorder (DVR) playback as well as PEG channels. AT&T retransmits alerts provided by local broadcast TV stations (ABC, NBC, CBS, FOX, etc.) and national news channels (Fox News, MSNBC, ABC News Now, CNBC and CNBC-West). AT&T delivers national/Presidential alerts to viewers watching other content sources by "force tuning" them to a pre-selected national channel, such as CNN, or a pre-selected local channel, such as NBC, that will carry the alert.
- 51. <u>State/Local EAS Alerts</u>. AT&T provides state/local EAS alerts, which may include National Weather Service alerts and Amber alerts, to its subscribers in all markets and on

all content sources, including local broadcast channels (see below), national channels and other AT&T U-verse TV features such as Video on Demand, DVR playback, as well as PEG channels. For local broadcast channels, AT&T retransmits alerts provided by those TV stations, e.g. ABC, NBC, CBS, FOX, etc. State/local EAS alerts will be (1) provided via a text scroll along with the EAS alert tone, repeating on regular intervals; (2) delivered only in affected counties through FIPS code targeting; and (3) color coded for easy recognition: warnings in red, watches in yellow.

52. This concludes my declaration.

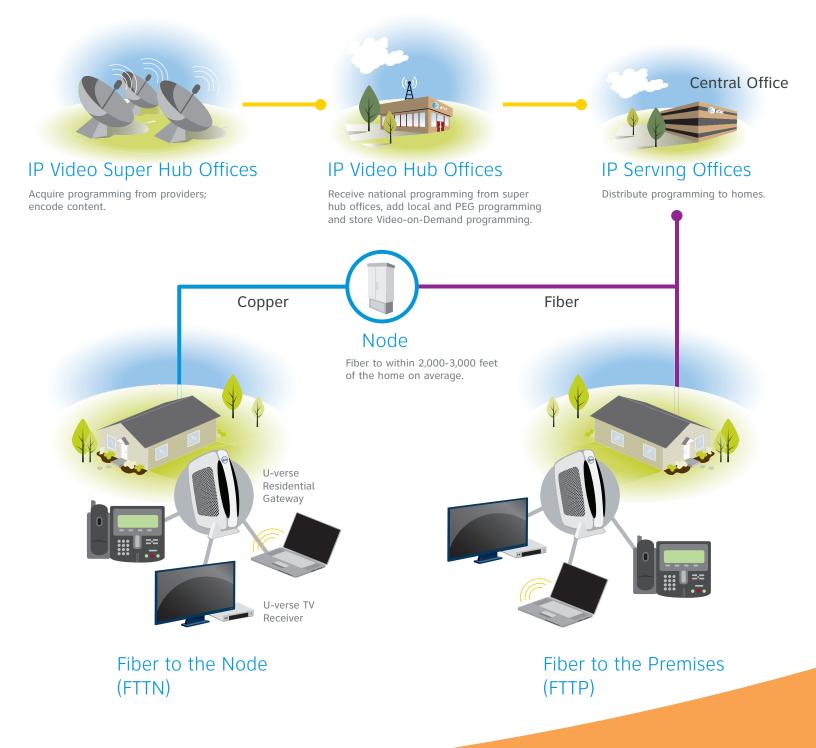
I declare under penalty of perjury that the foregoing is true and correct, and that I executed this verification this 6^{th} day of March 2009 in San Antonio, Texas.

Paul Whitehead

AT&T U-verse[™]

How AT&T U-versesM TV is Delivered

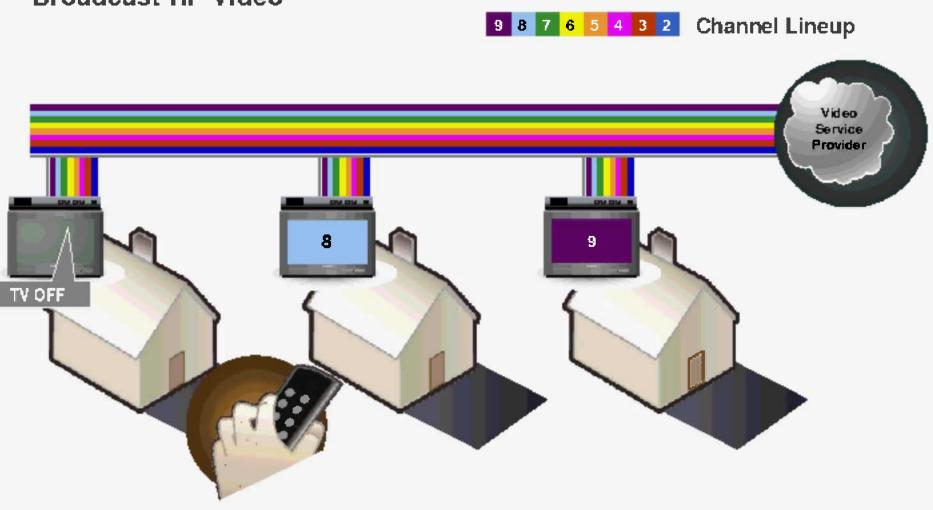
AT&T's Internet Protocol (IP) network and video backbone delivers high-quality video, advanced functionality, and other applications. Video content travels AT&T's managed, two-way IP network and arrives at the customer's home via fiber-to-the-premises or fiber-to-the-node technology.

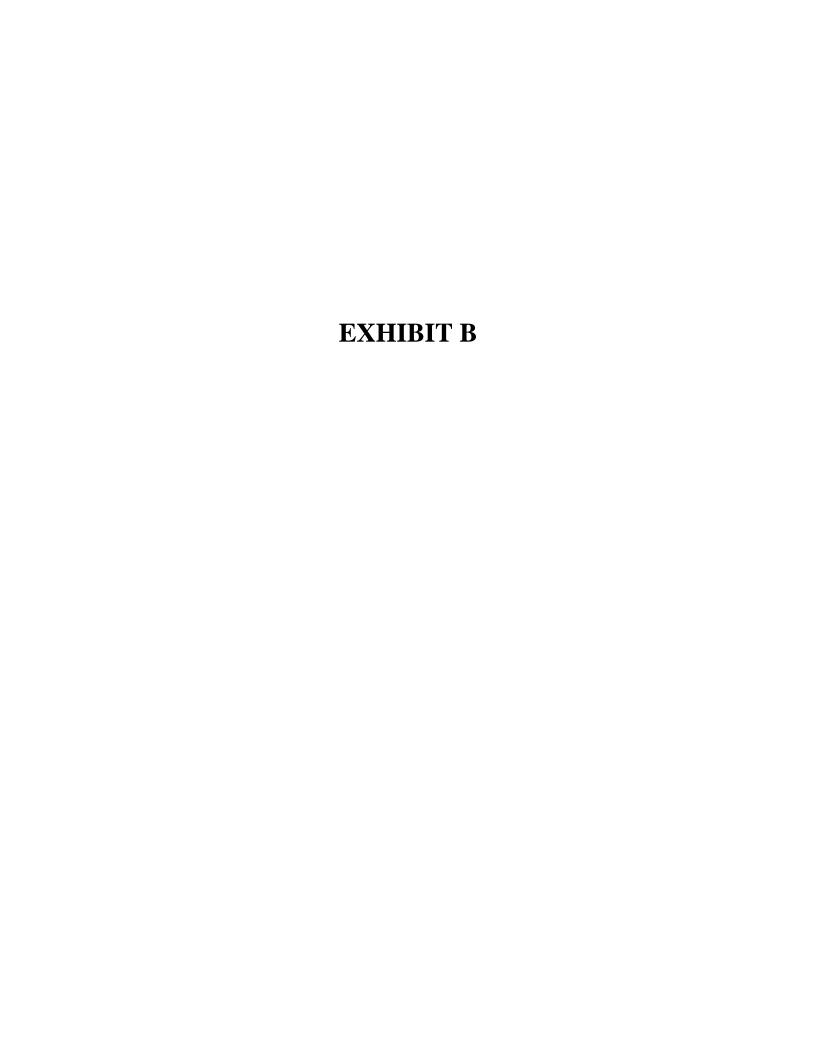




Video Transport

Broadcast RF Video





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

In the Matter of

Petition for Declaratory Ruling of the City of CSR-8127

Lansing, Michigan, on Requirements for a MB Docket No. 09-13 Basic Service Tier and for PEG Channel Capacity Under Sections 543(b)(7), 531 (a),

and the Commission's Ancillary Jurisdiction

Under Title I

In the Matter of

Petition for Declaratory Ruling of Alliance for CSR-8126

Community Media, et al., that AT&T's MB Docket No. 09-13 Method of Delivering Public, Educational, and Government Access Channels Over Its

U-verse System Is Contrary to the Communications Act of 1934, as Amended,

and Applicable Commission Rules

In the Matter of CSR-8128

Petition for Declaratory Ruling Regarding MB Docket No. 09-13 Primary Jurisdiction Referral in City of Dearborn

et al. v. Comcast of Michigan III, Inc. et al.

DECLARATION OF MARY McCARTHY IN SUPPORT OF AT&T'S OPPOSITION TO PETITIONS FOR DECLARATORY RULING

I, MARY McCARTHY, declare as follows:

1. Title and responsibilities. I am employed by AT&T Services, Inc. as Director of Interactive TV. In this position, one of my responsibilities is the development and implementation of applications for the AT&T U-verse TV service. The applications that I am responsible for provide customers with a variety of content, including, public, educational, and governmental ("PEG") programming, specialized or "niche" programming such as that intended to appeal to ethnic communities, Yahoo!-based games, Weather on Demand, Yellowpages.com TV, content and interactive features from providers like Starz, and content from popular events

such as the Film Awards season (Oscars, SAG, independent spirit, etc.), the Olympics, and the Masters Golf Tournament. I have personal knowledge of the matters stated below, except where stated on information and belief, in which case I believe them to be true. I make this declaration in opposition to the petitions for declaratory ruling filed by the City of Lansing and the Alliance for Community Media, et al. ("the Petitioners").

- 2. <u>Project Lightspeed and AT&T U-verse TV</u>. Through the "Lightspeed" initiative, over the past several years AT&T has extended its fiber optic network to terminal points, or "nodes," within neighborhoods, greatly enhancing the available bandwidth of its network.

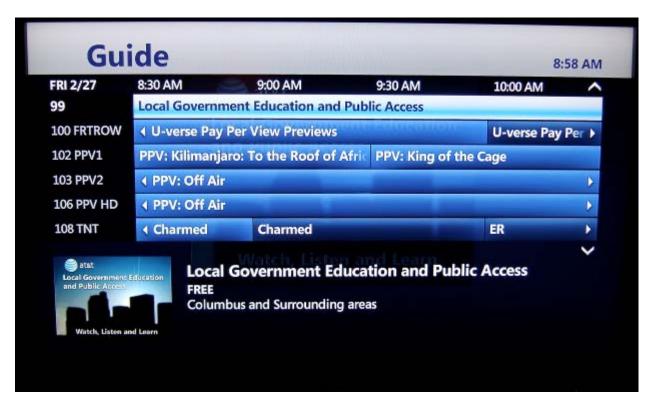
 AT&T is now able to offer its customers a full suite of communications services, including its video service, AT&T U-verse TV. Like many of AT&T's services, U-verse TV employs Internet Protocol ("IP") technology. There are fundamental differences between the IP Television model employed by U-verse TV and traditional cable systems (and Verizon's FiOS television).
- 3. U-verse TV uses an interactive two-way "client-server" model in which the subscriber, through her Set Top Box "client," requests individual content streams and related applications from content "servers" located at regional "video hub offices" ("VHOs") or at an application data center. Only those selected streams are delivered to the subscriber's television. Each VHO serves a number of communities (for example, the VHO serving the Chicago DMA serves 267 local entities); the geographical "footprint" served by each VHO corresponds to the Nielsen Media Research "Designated Market Areas" ("DMAs"). National programming that appears on U-verse TV (e.g., ESPN, CNN, etc.) is inserted at the Super Hub Office, located in Kansas. Other programming is inserted at a VHO. The network architecture AT&T employs for U-verse TV does not employ any local points of content insertion downstream from the VHO.

- 4. By contrast, a cable operator (including Verizon) relies on a one-way system for the bulk of programming it distributes. Using a traditional "broadcast" method, all programming other than video-on-demand content is aggregated at a local or regional "headend" and delivered all the time to the subscriber's cable box. Filters in or attached to the cable box exclude or permit some content, depending on the subscriber's selection. A cable system typically has the capability to add a frequency corresponding to the equivalent of a channel at a point downstream from its headend location; this enables a cable operator to limit content to a particular geographic area. In the case of PEG programming, this allows a cable operator to offer PEG channels only to residents in a particular city.
- 5. PEG programs on U-verse TV. Where a municipality is the source of video, as is the case for most PEG content, AT&T typically receives the PEG feed by interconnection directly at a municipality location or at the headend of the local cable incumbent (where PEG may be aggregated). The PEG feed, often received in an analog National Television System Committee ("NTSC") standard format, is connected to an "encoder" that digitizes, encodes, and compresses the feed and streams it in an IP format to an Internet Mediation Device ("IMD") at the VHO that serves the municipality. The IMD manages multiple incoming streams of IP video coming from sources, such as local governments, outside the AT&T network and directs each stream to the subscriber that selects it.
- 6. Subscribers who select and receive PEG content receive it as a media stream that their television displays using a version of the Windows Media Player application developed by Microsoft. When PEG is selected, a video application and elements of the Windows Media Player are opened at the U-verse TV subscriber's Set Top Box for display of the selected content.

- 7. AT&T also uses the IMD and Windows Media Player approach to provide content other than PEG programming. Currently, "Weather on Demand," which allows U-verse TV customers to view current weather information for any location they may choose, is available via the IMD and Windows Media Player approach in the entire U-verse TV service footprint. The IMD and Windows Media Player approach is well suited to provide local and specialized video content, such as local church services or community college programming not carried on PEG today, and commercial foreign language programming designed to appeal to particular ethnic communities. AT&T is also working with other commercial programmers to deliver more content in this manner. Further, the U-bar, which is an interactive feature subscribers can utilize directly from a hot button on their remote control, will also leverage the Windows Media Player to provide NCAA basketball highlights to U-verse TV subscribers during this year's tournament. Thus, PEG is an example of, but will not be the only, video delivered using the IMD and Windows Media Player approach.
- 8. AT&T's PEG architecture incorporates various linked functions. Individual viewers are connected to a PEG stream in "real time" when they request a PEG program by use of the Set Top Box. The picture is displayed using the video application called from the VHO to the Set Top Box and using the Windows Media Player. To view PEG content, a U-verse TV subscriber selects Channel 99 on the main page of their Electronic Program Guide.



Or the subscriber can go to Channel 99 on the Electronic Program Guide, which is the standard location for access to PEG used everywhere AT&T offers U-verse TV in the United States.



Once the subscriber selects PEG either directly from the Main Menu of the Electronic Program Guide or by scrolling to Channel 99, they will see the following screen:



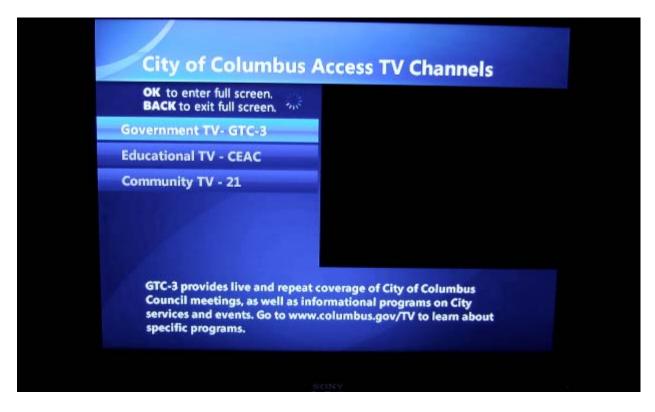
9. Pressing "OK" on the remote launches a browser program on the Set Top Box, which, in turn, points to a sync server where the PEG application resides. The application consists of HyperText Markup Language code and a command to open a window in which Windows Media Player can play the referenced PEG programming. During this process the subscriber will see the following screen for approximately 7 to 9 seconds (the blue cloud pulses letting the viewer know that the process is occurring):



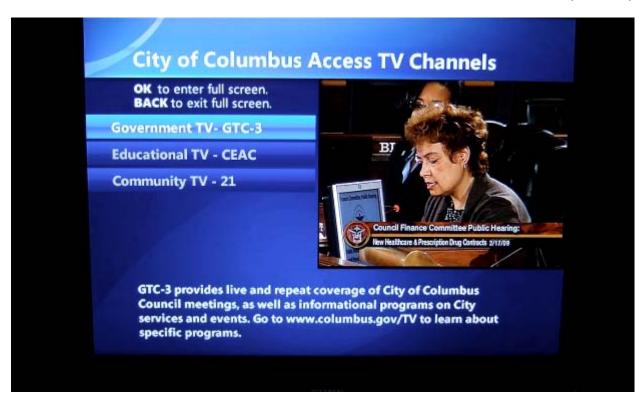
- 10. At this point in the process, customers see an alphabetical listing of all the cities with PEG programming available in their area, *i.e.*, within the DMA served by the VHO, assuming there is more than one city providing PEG to AT&T. After selecting a city from that menu, the subscriber then is able to choose from a list of programs available for that city.
- 11. In the example screen shots here, the City of Columbus, Ohio is the only city in the DMA that has provided PEG programming to AT&T thus far, so the viewer goes directly to the city's page. In Columbus, the majority of the surrounding cities merely rebroadcast Columbus PEG in their city. This may be a result of terms in franchise agreements with incumbent cable operators limiting a city's PEG to shared space on a channel, the costs associated with producing programming to be delivered over a traditional cable system or, perhaps, a city's choice not to produce PEG content. But with U-verse TV, and the flexible

production options Mr. Whitehead discusses in paragraphs 30-33, these cities will be empowered to produce their own PEG streams, if they choose, that can be viewed DMA-wide.

12. When the subscriber selects the particular PEG content for a city, the Set Top Box requests access to the desired video stream, which is identified using an Internet address known as a Uniform Resource Locator. An Internet Group Management Protocol join message is issued for the relevant multicast stream. The requested PEG content then is delivered, in an encoded and compressed digital format, to the Set Top Box. The Windows Media Player decodes and buffers the stream, and the PEG program appears on the subscriber's television. Here is what it looks like while the Windows Media Player is buffering the stream (notice the rotating arrow in the upper right hand corner above the channel listing), which takes approximately 7 seconds:



When the buffering ends, the subscriber sees the following screen:



At this point, the subscriber may elect to view the PEG programming in full screen mode:



- 13. I recommend that you visit the following link to view a video showing the PEG application in action: http://www.attcorpcomm.com/video/U-verse/PEG/revised092208/.
- 14. <u>U-verse TV PEG development</u>. The U-verse TV network reflects Microsoft's recommended system architecture. The design places most of the servers that route content, and the middleware that manages it, at the VHO, SHO, or application data centers. As Mr. Whitehead's declaration details, to provide PEG as linear channels (and to match cable's PEG channel numbers) would require either (1) a fundamentally different, more distributed architecture with channel and content management functions distributed to facilities downstream from the VHOs, where local PEG would be physically inserted, or (2) substantial middleware and software upgrades and a significant increase in server capacity to virtually insert PEG once the technology is available to do so. Either fundamental change in system design would deprive U-verse TV customers of the ability to receive *more* PEG programming at one easy to find location Channel 99. It would, specifically, restrict access to PEG content, as subscribers would be limited to the PEG produced in their municipality and would not have access to PEG from other municipalities within the VHO coverage area.
- 15. Petitioners' PEG-related concerns. I understand that the Petitioners assert several criticisms of the U-verse TV's PEG product, including that the quality of the PEG picture is not similar to that of standard definition commercial channels. I further understand that the Petitioners contend that the functionality of the PEG application is not similar to the U-verse TV linear channels in several respects, including launch time delays, closed captions and secondary audio capability, and DVR capability. In important ways, the Petitioners' factual assertions regarding both quality and functionality are incorrect or misleading. Further, since PEG's debut

on U-verse TV, AT&T has made several enhancements to the PEG application that address the Petitioners' concerns, and other enhancements with respect to this new technology are being deployed, are committed for future deployment, or are in development.

- 16. <u>PEG quality</u>. Several factors influence the quality of PEG programming as it appears on a subscriber's television. The same factors that impact picture quality also impact audio quality, but to a lesser degree. The following are the major factors that impact the picture and audio quality U-verse TV subscribers receive on their television:
- 17. Quality of the feed AT&T receives from the PEG content provider. This is a function of the production equipment used by and the technical expertise of the content provider's staff. It also can be affected by lighting and sound arrangements.
- by an encoder that digitizes and formats the content into a compressed IP stream that is compatible with AT&T's IP network and conforms to bandwidth restrictions that apply. As part of the PEG application design, AT&T tested several encoder models that met its initial specifications regarding the bit rates and resolutions that AT&T knew the PEG architecture could sustain. Then, depending on differing state law requirements, AT&T either provides municipalities with an encoder and the recommended settings for its use, or it provides the municipalities with encoder specifications.
- 19. The encoders can be set to various bandwidth rates for the output digital stream. Generally speaking, more bandwidth means more bits of information are processed, which can produce better quality. Originally, following Microsoft's technical specifications, bandwidth from the encoder was set at 1.0 Mbps. In May 2008, AT&T increased the bit rate for PEG video from 1.0 Mbps to 1.25 Mbps in all markets where PEG is live. The 1.25 Mbps now is the

standard that will be used on all future PEG implementations. This increased bit rate has enabled AT&T to change the PEG video resolution from 320 x 240 to 480 x 480 – the same as the resolution for U-verse TV's standard definition commercial programs. An October 2008 JD Power and Associates Reports consumer survey ranked U-verse TV first among video service providers in customer satisfaction, which included signal reception clarity as a key criterion to measure performance and reliability of a video service.

- 20. <u>Signal transport</u>. From the encoder, AT&T typically runs PEG content to the VHO using premium "T1" circuits. If a municipality or incumbent cable operator provides a sufficient number of aggregated PEG feeds from one location, AT&T may use larger circuits. T1 circuits can transport at a bit rate up to 1.544 Mbps. The T1 circuits thus allow AT&T to transport PEG to the VHO at the new standards of 1.25 Mbps and at a 480 x 480 resolution.
- 21. In jurisdictions where the municipality is responsible for PEG transport, some cities, including cities in Michigan, have elected to use the public Internet to deliver their PEG signal to AT&T. In those instances, AT&T links to an IP address that the municipality assigns to a PEG feed, and AT&T pulls the PEG content "over the top" into the U-verse TV network. This efficient manner of content delivery is made possible because U-verse TV is delivered over AT&T's IP network.
- 22. <u>Set Top Box</u>. AT&T provides the Set Top Boxes to subscribers. These Set Top Boxes are loaded with proprietary software developed for AT&T by Microsoft. This software was developed in coordination with the protocols established for the video application used for PEG. Initially, AT&T encountered problems with the Microsoft software on the Set Top Boxes at bit rates greater than 1 Mbps. The PEG application consumed too much of the Set Top Box's available processing power, and disabled or compromised other applications managed by the Set

Top Box. These issues have been resolved so that the Set Top Boxes now can receive PEG video at the 1.25 Mbps rate.

- 23. PEG functionality toggling and launch time delays. I understand that the Petitioners contend that PEG on U-verse TV does not offer similar functionality as commercial channels in part because one cannot "channel surf," or toggle, between PEG and linear commercial channels, and because it can take between 7 and 20 seconds for the PEG application to launch once Channel 99 is selected. There are differences in channel access time, compared to cable, but AT&T already has taken measures to speed subscriber access to PEG and more actions are in the works.
- 24. First, in 2007, AT&T added a direct link to "Local Public Education and Government" programs on the Main Menu of the Electronic Program Guide; no other programmer on AT&T's U-verse TV system enjoys this type of placement on the Main Menu. Now subscribers do not have to scroll to or manually enter "Channel 99" in order to access PEG; they merely have to select PEG from the Main Menu.
- 25. Second, PEG video is viewed via a version of Windows Media Player that operates within a web browser application. Initially, when then PEG product was first rolled out in December 2006, the browser was not resident on the Set Top Box; instead, when a PEG program was called, the Set Top Box interacted with the client software hosted on a sync server at the VHO in order for the image to be viewable at the client Set Top Box. Microsoft and AT&T worked to improve the efficiency of Set Top Box operations so that browser functions could be resident at the Set Top Box and not require loading from the network. This change greatly reduced launch times and, thus, decreased the time it took to go from a PEG program to other programming. A number of complex, interrelated efforts were required to implement these

changes system-wide and without risk to system stability. As a result of this hard work, a client software release, which included an element called "Mediaroom Browser," was implemented in the last quarter of 2008. The release reduced launch time for video applications by causing a "mini-browser" to reside on the Set Top Box. This eliminated the need to load the browser from the VHO, and it cut load times roughly in half.

- Presentation Framework," that is presently scheduled to be implemented by the end of the third quarter of 2009. This release includes a set of software tools that augment previous versions' capabilities. Mediaroom Presentation Framework adds code to the Set Top Box that will facilitate access to video applications with greatly expedited interaction with the application servers resident in the network. It is expected that these improvements will make PEG accessible even more rapidly; initial testing shows the PEG program launching in approximately two seconds, roughly the same as the time it takes for a subscriber to call up the Electronic Program Guide or Main Menu. Currently, the impending upgrade of the Mediaroom Presentation Framework does not support the auto recall cookie function, which remembers the last city a subscriber selected on the PEG product. We are working with Microsoft to return that feature to the subscribers' PEG viewing experience.
- 27. <u>PEG functionality closed captioning and secondary audio programming</u>. To accommodate hearing-impaired viewers, if a municipality includes captions to its PEG programming, U-verse TV embeds them within the picture, and the captions appear as open captions, meaning that they appear on the screen for all subscribers all the time. AT&T and Microsoft are working to enable software running on the Set Top Boxes to recognize captions

provided in "closed caption" format, thus allowing the viewer to toggle between viewable (open) captions and hidden (closed) captions.

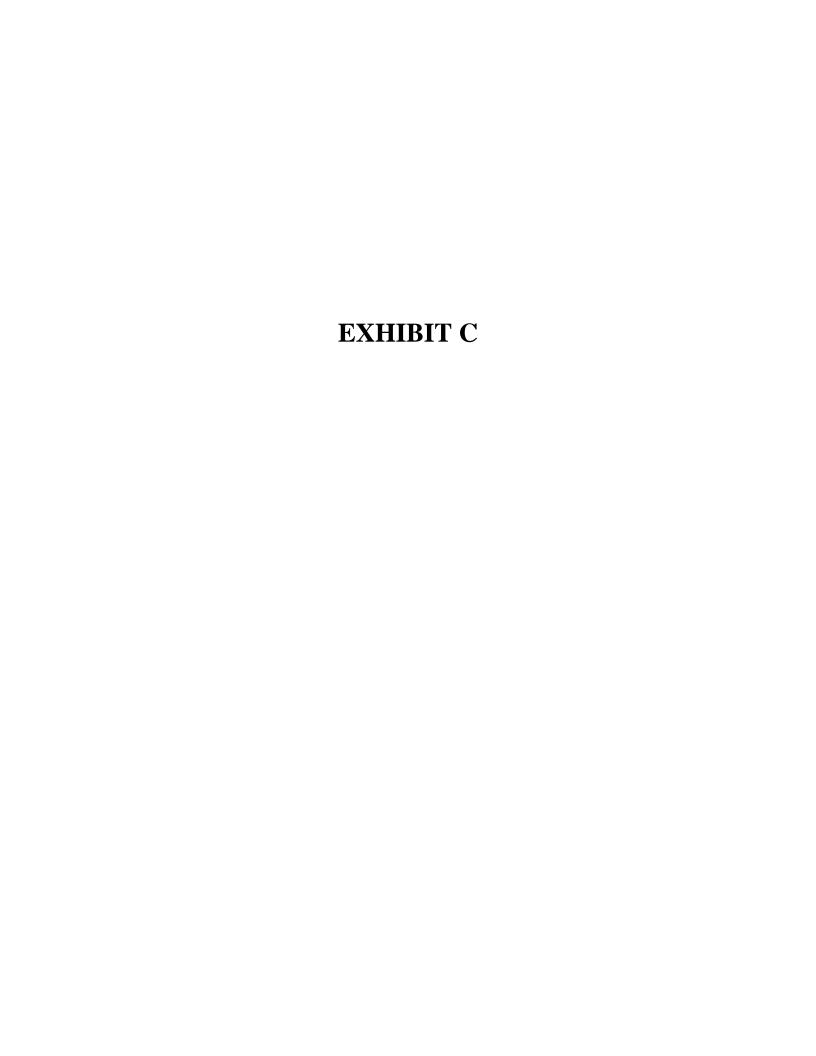
- 28. "Secondary audio programming" ("SAP") refers to foreign language dubbing of video content, *i.e.*, programs recorded in English may include Spanish, Mandarin Chinese, or other secondary audio tracks. AT&T and Microsoft also are working to enable U-verse TV PEG to accommodate secondary audio programming. At present, limitations in the Set Top Box software prevent use of SAP in video applications. AT&T and Microsoft are exploring changes to Set Top Box software that will enable recognition of and toggle between multiple audio streams.
- 29. For both closed captioning and SAP, a new software client release that is being pushed out to subscribers' Set Top Boxes once related updates are completed in the VHOs, will enable these functions for PEG programming. The current plan is to have the functions tested and approved by the end of the second quarter of 2009. Lab and field-testing must be completed before deployment. Actual field deployment could start in some markets before the end of the second quarter of 2009. The dates provided above assume that AT&T encounters no unforeseen problems during the testing.
- 30. <u>PEG functionality DVR capability</u>. AT&T's basic tier of service for U-verse TV does not include the ability to use AT&T's own Digital Video Recorder ("DVR") to record programming. An AT&T DVR is included with other programming packages and can be added to any package that does not include a DVR. As with other programming on AT&T's basic tier of service for U-verse TV, PEG programs cannot be recorded on an AT&T U-verse DVR. A U-verse TV subscriber may use other recording devices, such as a VCR or TiVo device, to record a PEG program. To do this, a subscriber can turn to a particular PEG channel, set a VCR or TiVo

to begin recording, for example, an hour later, and the program will be recorded at the set time so long as the TV remains on and the channel is not changed. AT&T U-verse TV does timeout when there is no subscriber interaction for more than approximately eight hours. AT&T continues to explore additional means to offer time-shifting functionality for PEG and expand viewer access to PEG.

- 31. AT&T U-verse PEG offers significant advantages, principally in the vastly increased choice of PEG programs available to every subscriber within a DMA at one simple location Channel 99. Viewers in one city have, for the first time, the ability to watch PEG programming from a host of other cities. Residents of cities with limited PEG programming can access the diverse offerings previously limited to viewers in other cities. In addition, viewers may have a specific interest in content from other cities perhaps based on their volunteer activities, educational pursuits, cultural interests, or business or personal ties.
 - 32. This concludes my declaration.

I declare under penalty of perjury that the foregoing is true and correct, and that I executed this verification this 9th day of March 2009 in San Antonio, Texas.

Mary McCarthy



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

In the Matter of

Petition for Declaratory Ruling of the City of

Lansing, Michigan, on Requirements for a

Basic Service Tier and for PEG Channel Capacity Under Sections 543(b)(7), 531(a), and the Commission's Ancillary Jurisdiction

Under Title I

In the Matter of

Petition for Declaratory Ruling of Alliance for

Community Media, et al., that AT&T's Method of Delivering Public, Educational,

and Government Access Channels Over Its

U-verse System Is Contrary to the

Communications Act of 1934, as Amended,

and Applicable Commission Rules

In the Matter of CSR-8128

Petition for Declaratory Ruling Regarding Primary Jurisdiction Referral in *City of Dearborn*

et al. v. Comcast of Michigan III, Inc. et al.

MB Docket No. 09-13

CSR-8127

CSR-8126

MB Docket No. 09-13

MB Docket No. 09-13

DECLARATION OF GUSTAVO DE VECIANA IN SUPPORT OF AT&T'S OPPOSITION TO PETITIONS FOR DECLARATORY RULING

- I am a Professor in the Department of Electrical and Computer Engineering at The
 University of Texas at Austin. My office address is Applied Computational and
 Engineering Sciences Building (ACES 3.120), University of Texas, Austin, TX 78712.
- I received my B.S., M.S., and Ph.D. in Electrical Engineering and Computer Sciences from the University of California-Berkeley. My Ph.D. was awarded in June 1993. I have taught in the Department of Electrical and Computer Engineering at the University of Texas at Austin since September 1993. I teach undergraduate and graduate level courses in digital communications, communications networks, information theory, and related

areas. My professional research is focused on the design, analysis, and control of telecommunication networks, including Network Management and Performance, Wireless and Sensor Networks, and Computer Aided Design ("CAD") and Nanotechnology. My educational and professional background and a list of my publications are set out in detail in my curriculum vitae attached as Exhibit A.

- 3. I make this declaration to summarize:
 - a. The basic technological and operational differences between AT&T's Internet
 Protocol ("IP") based video service and the cable services provided by traditional cable
 TV operators; and
 - b. How AT&T uses its IP video technology to deliver PEG programming and commercial programming on its U-verse network.

I. TRADITIONAL CABLE SERVICE VERSUS IP VIDEO SERVICE

4. Traditional cable services operate in the same basic way as do over-the-air broadcast television stations. In both, each television channel is assigned a specific frequency band. For example, each analog TV station is assigned and carried on an exclusive frequency band of width 6 MHz. The cable system and traditional TV stations both broadcast their programming concurrently to all customers in the communities that they serve all the time. This way of partitioning resources across television channels is referred to as frequency division multiplexing, and allows users to effectively "turn a dial" to "tune" their TV/set top box to the frequency band corresponding to the program they wish to view. For present purposes, the only difference between broadcast TV stations and

traditional cable systems is that TV stations broadcast their TV signals through the airwaves, whereas traditional cable services broadcast TV signals over coaxial cables (sometimes fibers) that are connected to the homes of their customers.

5. By contrast, AT&T's IP video service uses the same fundamental technology used to provide Internet access services. Internet service providers use packet switching to establish two-way communication between a customer and one or more Internet servers/web sites. Similarly, AT&T's IP video service uses packet switching to deliver the individualized video programming each customer wants to view. On AT&T's network, video programming shares the same transport resources (including the same fiber, and twisted pair copper wire) that are used for high speed Internet access service, voice over IP telephone service, and potentially an array of other services and applications. These resources can be shared because all these services use IP packets to carry the associated data, and these can in turn be queued and scheduled for transmission across various network resources – this is sometimes referred to as statistical multiplexing. Thus, rather than portioning resources using frequency division multiplexing, the network resources can be dynamically shared on an as needed basis. By contrast with cable systems, AT&T's network delivers the information required to view a particular program only to those customers who have requested to view the particular television program. The delivery of information required to view a program on the AT&T network is realized via a multicasting service (described below).

II. DELIVERY OF PEG AND COMMERCIAL PROGRAMMING ON AT&T'S U-VERSE IP VIDEO SERVICE

6. AT&T uses its IP video technology to deliver both PEG and commercial programming. For both, the information necessary to display the television programming on a specific channel is transported to a customer's set top box via IP packets upon request of the customer. Below I compare the specifics of the video compression, transport facilities, and transport protocols used for PEG and commercial channels on U-verse; however, the principal difference between PEG and commercial programming on U-verse is the manner by which a customer requests the programming. For a commercial channel, a customer indicates he wishes to view a particular television program by selecting it in the electronic program guide. By contrast, for PEG programming, a customer must first open an application (by either choosing Channel 99 on the program guide or selecting the Government Education and Public Access Button on the main menu), which displays the available PEG programming, and from that display can select the program he wishes to view.

A. Video compression: ATT PEG and commercial programming.

7. The goal of video compression is to take the video source, be it analog or digital, and produce a compressed representation - a stream of bits, e.g., 0s and 1s - which has minimal average rate, bits/sec, from which the source content can still be recovered.

Such compression is desirable from the point of view of reducing the resources to store and/or deliver video service.

- 8. There are a wide variety of standards for video compression. The relationship between the amount of information, or raw bit rate in bits/sec, used to represent the video program and the eventual perceptual quality seen by a viewer is a complex one. Indeed the video compression process is typically lossy, which means that some information is discarded, but this is done judiciously to attempt to ensure that viewers would not notice a degradation in quality. For example if one wished to communicate a long sequence of bits, say of 1000 zeros followed by a 1, one could either actually communicate the long sequence, or instead, transmit a substantially shorter message indicating that 1000 zeros should be followed by a 1. In the latter case the message is a very compact description of the original information – so it effectively compresses the original. Either approach conveys the same information to the receiver. Such compression is very desirable as it can substantially reduce the resources required to transport a video program. By analogy, because there are frequencies humans can not hear, one can compress audio signals by discarding information associated with those frequency bands without leading to a perceptual degradation in audio quality.
- 9. For digital video, the raw data (the 0s and 1s) is used to recreate the video program on a display. The resolution of the displayed program is usually measured in terms of the number of pixels, denoted as a horizontal versus vertical matrix. From one video frame to the next, certain pixels will remain the same. So, another example of a technique used for video compression is to only specify the information corresponding to pixels that change from frame to frame. For instance, if the background behind a talk show host stays the same from frame to frame, the information necessary to display that background need only be sent once, or at least infrequently. The multitude of video compression

standards reflect the variety of techniques that can be used to attempt to more or less aggressively compress the information required to reconstruct the video program without compromising quality.

- 10. Because some video compression standards are more efficient than others, the raw bit rate resulting from different compression standards is not necessarily a good metric for measuring video quality. Besides the efficiency of the compression standard, other factors can affect video quality. For instance, it is not unusual in video delivery systems for a compressed video stream to have to be transcoded, i.e., decoded from the standard in which it is received and then re-compressed using a different standard. Since the compression standards are typically lossy, transcoding may lead to changes in the eventual user perceived quality, which are difficult to assess, and may depend on the order in which compression standards are applied during the transcoding process. Further, although the goal of compression standards is to define precisely what operations should be carried out, and how information should be encoded, during video compression, the actual implementation of such standards can vary, giving different results.
- 11. On the AT&T U-verse system, the original PEG programming may be provided in a variety of formats by the municipality or PEG programmer (although typically via an analog signal), but AT&T or the PEG provider (depending on the jurisdiction) encodes the programming using Windows Media 9/ VC-1 Main standard, at a resolution of 480x480. The resulting raw bit rate associated with such a video stream is roughly 1.25 Mbps. In addition, digital data is included to allow reproduction of two standard audio

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Declaration of Professor Gustavo de Veciana

channels, i.e., stereo reproduction. Commercial programming is typically acquired in MPEG 2 format and then must be transcoded into MPEG 4 (H.264) at a resolution of 480x480. The resulting raw bit rate associated with such video streams is variable, with a maximum bit rate of approximately [***BEGIN CONFIDENTIAL***] [***END CONFIDENTIAL***] Mbps. The audio quality depends on the original material, but again typically would be two standard audio channels. Both of these compression standards are more efficient than the older compression standard used by digital cable providers (MPEG 2), which typically requires a raw bit rate of 2.5 to 4 Mbps to deliver a cable television standard definition channel.

12. As noted earlier, due to the subjectivity involved, making a fair comparison of video quality resulting from the compression standards used for PEG and commercial programming is not a simple matter. This would need to further account for a wide variety of factors, including differences in the original video material for PEG and commercial programming, the type of video programming, the fact that the commercial channels are generally subject to transcoding (because the PEG programming is typically received as an analog signal, it does not need to be decoded before it is encoded), the eventual display and user viewing position, and a variety of other factors. Still, although the compression standards are different, the resolution used in both cases is identical and the MPEG 4 and Windows Media 9 standards being used in the AT&T U-verse system are competing standards aiming to deliver standard quality video at a substantially reduced raw bit rate.

B. Transport Facilities and Protocols

- 13. Transport facilities refers to the network of fiber and copper wires that packets traverse to and from the source of video programming and the customer premises.
- 14. AT&T offers municipalities the option of providing its programming to AT&T over the AT&T managed network. If the municipality selects this option, IP packets associated with transporting PEG programming between the municipality and VHO are carried over a variety of possible facilities depending on the municipality, including (i) a T1 Managed Internet Service; (ii) a multilink point to point Managed Internet Service; or (iii) an Optical-Electronic Metropolitan Area Network with Ethernet direct Internet access. Thus the transport facilities from the municipality to the VHO may involve optical fiber and/or copper wire. In either case, mechanisms within the AT&T's network are in place to ensure that the packets exchanged between the VHO and customer's set top box see appropriate quality of service.
- 15. From the VHO to the subscriber, the PEG programming is typically transported via fiber to the node (Ethernet) and twisted copper from the node to the home. Again the network allocates sufficient bandwidth to ensure that customers will eventually receive the data required to reproduce high quality video programming.
- 16. In the case of commercial programming, AT&T receives the programming via fiber or satellite at the super hub office and/or VHO (local signals may be acquired over-the-air).
 Subsequently the same network infrastructure, as used for PEG programming, is used from the VHO to the subscriber.

- 17. In the AT&T U-verse network, a variety of protocols, which are used on the Internet, are used to deliver these packets to the customers, where eventually the video program can be reproduced.
- 18. In the case of PEG programming the Transmission Control Protocol (TCP) is used to transport packets from the municipality to the Video Hub Office (VHO). This is a point-to-point transport protocol, which involves bidirectional transmissions between the end points. This data is then transported from the VHO to the customers' set top boxes via a User Datagram Protocol (UDP) multicast session.
- 19. Multicasting involves a one-to-many transmission of packets on a 'tree' of links and resources from the VHO to the customers wishing to view the particular program. Unlike broadcasting done on cable networks (which involves all programming being sent to all customers), the data associated with a particular program is only sent to customers who select that programming. Such a multicasting based service, differs from one based on unicasting (typically used for transmissions from Internet websites), which involves the host server originating IP packets to each recipient who has requested information from the website.
- 20. Multicasting allows the network to allocate its resources more efficiently, since on any single network link, typically only one copy of each packet associated with a particular PEG station will be seen. Instead of sending multiple streams of IP packets from one source to all customers requesting specific programming (unicast), with multicast, a single copy of each IP packet is sent along each link and is replicated by routers in the network at the point where links on the tree diverge. For example, suppose a customer is

not currently viewing a given station and wishes to receive the programming on that station, his set top box will need to send an upstream packet to join the multicast distribution tree at the appropriate join point (the point closest to the customer in the network where there is a router that can copy the IP packets). Once this has occurred, when downstream packets associated with that multicast session arrive at the join point, a copy is made and transmitted down a tree branch so that customer which has joined the session receives it. When a user decides to view a different program, or turns his TV off, the set top box will send upstream packets indicating this set top box is leaving the multicast session. Subsequently the network would discontinue sending packets associated with the PEG program previously being viewed to that customer. As a result of these mechanisms, the network can be referred to as supporting a switched video service, where information flows are switched on and off, as users (set top boxes) join and leave the multicast session based on the programming they choose to view. Multicast delivers programming to customers without unnecessarily burdening the source of the programming and the customer's set top box, while using a minimum of network bandwidth. This enables AT&T's network to be exceedingly efficient in how its resources are used.

Transport of commercial programming on the AT&T network follows a similar process.

The data associated with the video program arrives from the commercial provider to the VHO over fiber or satellite (or over-the-air for local channels). The transport protocol in this case may depend on the commercial provider. In turn, transport of data packets from the VHO to the customers is mediated via reliable UDP protocol, which again uses the same multicast strategy. Thus, once again, if a customer wishes to view a particular

- commercial program, her set top box must send upstream packets to join the associated multicast session.
- 22. In summary, the transport facilities and protocols used by the AT&T U-verse system used to deliver PEG and commercial programming are substantially the same. In both cases, the same transport facilities are used from the VHO to the customers' premises. Also, in both cases, the customer's set top box must join a UDP multicast session which is associated with each video program. One area where the transport of PEG and commercial programming differ is that in the case of commercial programming, the U-verse system has implemented an additional mechanism enabling customer set top boxes to request unicast retransmission of packets that might have been lost along the multicast distribution tree. However, a key aspect of AT&T's network is that IP packets associated with PEG and commercial video programming are allocated sufficient bandwidth to ensure a high quality video signal. This ensures the network provides the required quality of service so that video programming can be reproduced on a timely basis at the customer premises.
- 23. In the Lansing petition, petitioner claims that AT&T delivers PEG channels as "low quality Internet webcasts available through web pages accessed by means of a series of click through menus." Lansing Pet. at 13. As is clear from the above discussion, this is simply not the case. First, the PEG channels are delivered on the AT&T network, just like the commercial channels, not on Internet web pages. Second, webcasts are unicast to users, whereas PEG channels are multicast just like commercial channels. Third, there is no security or quality of service ("QOS") with webcasts that have to pass through

multiple networks to get to a user. PEG channels, like commercial channels on AT&T's network, are subject to security controls and QOS. Finally, I would note that, although there is a wide variety of services one could call "webcasts" over the public Internet, they are typically encoded at no more than 300Kbps, which is indeed very far from the 1.25Mbps used to deliver PEG on the AT&T system.

C. Summary

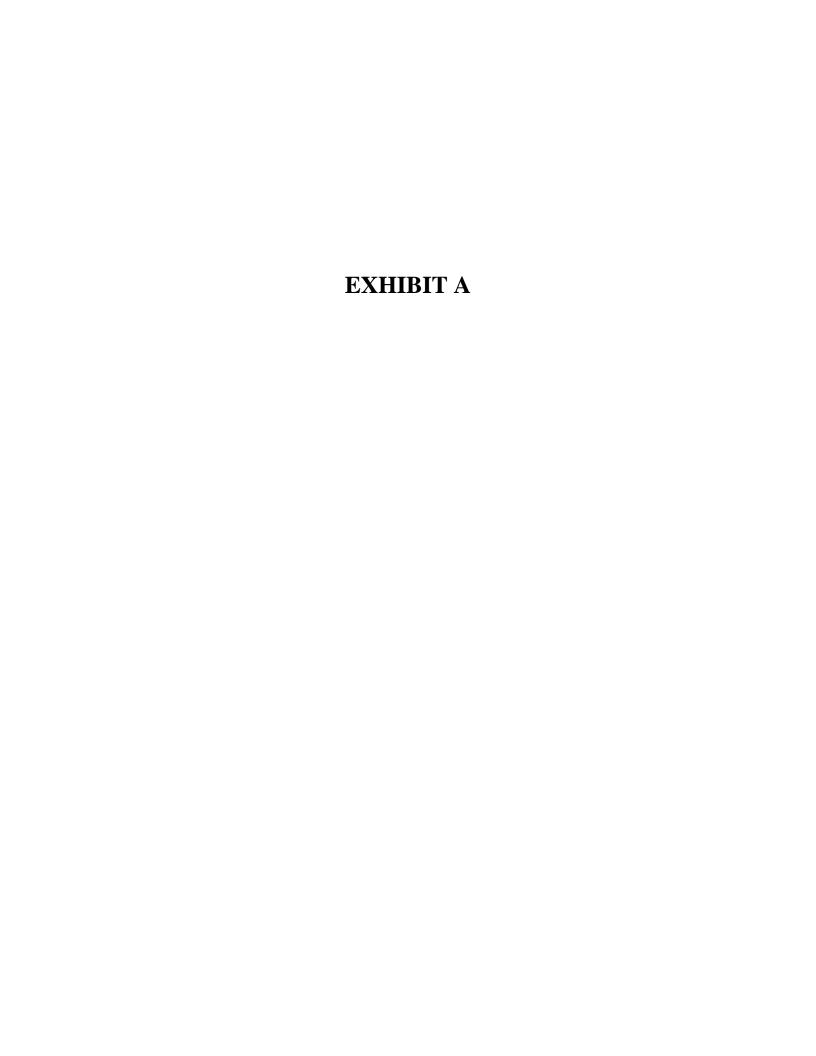
- 24. AT&T's network is based on an IP packet technology, which is very different from cable TV network. Indeed it is not based on broadcasting over a shared medium, nor on partitioning shared resources via frequency division multiplexing, i.e., subdividing the spectrum into 6 MHz bands. For neither commercial nor PEG video programming is there a dedicated allocation of a frequency band on its network resources. Instead AT&T's network is designed to deliver packets associated with video, voice, and data services between VHOs and the customer set top boxes over shared resources using packet switching. AT&T's network can in principle deliver the same, and possibly enhanced, PEG and commercial programming and associated services but not in the manner based on dedicated 6 MHz frequency bands.
- 25. From the perspective of the video compression used in the AT&T U-verse product for PEG and commercial programming, two different, competing standards are being used, but the resolution for each is the same. The transport protocols used to deliver PEG and commercial programming on AT&T's network are the same Internet protocols, including UDP multicasting to the set top box. In the case of commercial programming, AT&T's network also includes a protocol which enables a set top box to request (unicast)

retransmission of packets which may have been lost along the multicast tree. The same access network resources, typically fiber to the node and copper to the home, are used to deliver video service. These are resources that are shared with other traffic, so to achieve quality of service, packets associated with video programming (PEG or commercial) are allocated sufficient bandwidth to ensure a high quality video can be reproduced at the customer premises. Overall, from a transport point of view, PEG and commercial programming are treated very similarly on AT&T's network. Assuming similar original PEG and commercial content, one might expect roughly the same user perceived video quality, but this would perforce be a subjective comparison.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 5, 2009.

Gustavo de Veciana



GUSTAVO DE VECIANA PROFESSOR

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Education

- Ph.D., Electrical Engineering and Computer Sciences, U.C. Berkeley, June 1993.
- M.S., Electrical Engineering and Computer Sciences, U.C. Berkeley, December 1990.
- B.S., Electrical Engineering and Computer Sciences, U.C. Berkeley, December 1987.

Current Academic Position

- Professor, Department of Electrical and Computer Engineering, The University of Texas at Austin, September 2003–Present.
- Center Director, Wireless Networking and Communications Group (WNCG), The University of Texas at Austin, This group includes 14 faculty from various departments, 70 undergraduate and graduate students, and is currently working with 12 companies that are part of an industrial affiliates program. January 2006–2008.
- Associate Professor, Department of Electrical and Computer Engineering, The University of Texas at Austin, September 1998–2003.
- Assistant Professor, Department of Electrical and Computer Engineering, The University of Texas at Austin, September 1993–1998.

Other Professional Experience

- Visiting Professor, IMDEA Networks, Universidad Carlos III, Madrid, June 2008 December 2008.
- DARPA UNMAN/CBMANET projects. Consulting work developing test and evaluation specification for research program addressing reconfiguration/adaptation objectives in mobile ad hoc networking infrastructure. August 2004 December 2007.
- General Bandwidth, Austin Texas. Various consulting services provided concerning resource and traffic management requirements for multi-service gateway. November 2000–January 2002.
- Cabletron-ZeitNet Inc, Short course on "Traffic Management for Broadband Integrated Services Networks," Santa Clara, CA, May 28, 1997.
- Research Assistant, University of California at Berkeley, Project on Advanced Technology for the Highway, August 1992–June 1993.
- Research Assistant, University of California at Berkeley, Electronics Research Laboratory, May–July 1992.
- Graduate Student Instructor, University of California at Berkeley, Department of Electrical and Computer Engineering, August–December 1991.
- Teaching Assistant, University of California at Berkeley, Department of Electrical and Computer Engineering, August–December 1988.
- Associate Engineer, Teknekron Communication Systems, Berkeley, May–July 1987.

Honors & Awards

- IEEE Fellow, for contributions to the analysis and design of communication networks, 2009
- Temple Foundation Faculty Fellowship, 2005-present
- Dean's Research Fellowship, The University of Texas at Austin, Fall 2004.
- Best Paper appearing in ACM Transactions on Design Automation of Electronic Systems, Jan 2002-2004.

- El Paso Corporate Foundation Faculty Achievement Award, 2003. For meritorious achievement in teaching.
- Paper included in "The Best of ICCAD 20 Years of Excellence in Computer Aided Design," edited by A. Kuehlmann, 2003.
- IEEE/CAS William J. McCalla ICCAD Best Paper Award, November 2000.
- Dean's Research Fellowship, The University of Texas at Austin, Spring 2001.
- Graduate Engineering Council, Faculty Service Award, 1999–2000.
- General Motors Foundation Centennial Fellowship in Electrical Engineering, since 1998-2005.
- Editor for IEEE/ACM Transactions on Networking, 1997–2001.
- CAREER Award, National Science Foundation, 1996.
- Joe J. King Professional and Engineering Leadership Awards: Faculty Leadership Award in the Department of Electrical and Computer Engineering, U.T. Austin, 1996.
- Research Initiation Award, National Science Foundation, 1994.
- University Research Institute Award, U.T. Austin, 1994.
- Faculty award from students in appreciation of "Open door policy," U.T. Austin, 1994.
- Graduate Student Fellowship, National Science Foundation, 1988.

Patents & Invention Disclosures

- US #7,266,122 "System and method for allocating bandwidth in a communications environment," R. L. Hogg, G. de Veciana, R.H. Whitcher and A.H. Anconetanii. Filed: November 27, 2002. Issued September 4, 2007. Assignee: GenBand Inc.
- Location Based Cryptography, with Robert Heath and Bill Bard. U.T. Invention Disclosure, currently being filed 2002.

Selected Publications (2000-2008; out of a total of 101 publications)

- 1. J. K. Chen, G. de Veciana, and T. Rappaport. Site specific knowledge and interference measurement for improving frequency allocations in wireless networks. *IEEE Trans. on Vehicular Technology*, pages 1–11, June 2008. Accepted.
- 2. N. Shanbhag, S. Mitra, G. de Veciana, M. Orshansky, R. Marculescu, J. Roychowdhury, D. Jones, and J. Rabaey. The search for alternative computational paradigms. *IEEE Design &Test of Computers: Special Issue on Design in the Late- and Post-Silicon Eras*, 25(4):334–343, July-August 2008.
- 3. S. Patil and G. de Veciana. Feedback and opportunistic scheduling in wireless networks. *IEEE Trans. on Wireless*, 7(1):1–6, January 2008.
- 4. X. Yang and G. de Veciana. Inducing multiscale spatial clustering using multistage MAC contention in spread spectrum ad hoc networks. *IEEE/ACM Trans. on Networking*, 15(6):1387–1400, December 2007.
- 5. S. Weber, J. Andrews, X. Yang, and G. de Veciana. Transmission capacity of wireless ad hoc networks with successive interference cancellation. *IEEE Trans. on Information Theory*, 53(8):2799–2814, August 2007.
- 6. S.-J. Baek and G. de Veciana. Spatial energy balancing through proactive multipath routing in wireless multihop networks. *IEEE/ACM Trans. on Networking*, 15(1):93–104, February 2007.
- 7. D. Arifler, G. de Veciana, and B. L. Evans. Network tomography based on flow level measurements. *IEEE/ACM Trans. on Networking*, 15(1):67-79, February 2007.
- 8. X. Yang and G. de Veciana. Performance of peer-to-peer networks: Service capacity and role of resource sharing policies. *Performance Evaluation, Special Issue on Performance Modeling and Evaluation of Peer-to-Peer Computing Systems*, 63(3):175–194, March 2006.
- 9. S. Weber and G. de Veciana. Rate adaptive multimedia streams: optimization and admission control. *IEEE/ACM Trans. on Networking*, 13:1275–88, December 2005.

- 10. S. Weber, X. Yang, G. de Veciana, and J. Andrews. Transmission capacity of wireless ad hoc networks with outage constraints. *IEEE Transactions on Information Theory*, 51(12):4091–4102, December 2005.
- 11. H. R. Sheikh, A. C. Bovik, and G. de Veciana. An information fidelity criterion for image quality assessment using natural scene statistics. *IEEE Transactions on Image Processing*, 14(12):2117–28, December 2005.
- 12. A. Zemlianov and G. de Veciana. Capacity of ad hoc networks with infrastructure support. *IEEE Journal on Selected Areas in Communications*, 23(3):657–667, March 2005.
- 13. J. Stine and G. de Veciana. A paradigm for quality of service in wireless ad hoc networks using synchronous signaling and node states. *IEEE JSAC, Special Issue on Quality of Service Delivery in Variable Topology Networks* 22(7):1301–1321, September 2004.
- 14. S. J. Baek, G. de Veciana, and X. Su. Minimizing energy consumption in large-scale sensor networks through distributed data compression and hierarchical aggregation. *IEEE JSAC, Special Issue on Sensor Networks*, 22(6):1130–1140, August 2004.
- 15. S.C. Yang and G. de Veciana. Enhancing both network and user performance for networks supporting best effort traffic. *IEEE/ACM Transactions on Networking*, 12(2):349–360, April 2004.
- 16. G. de Veciana, T.-J. Lee, and T. Konstantopoulos. Stability and performance analysis of networks supporting elastic services. *IEEE/ACM Transactions on Networking*, 9(1):2–14, February 2001.
- 17. C.-F. Su and G. de Veciana. Statistical multiplexing and mix-dependent alternate routing in multiservice networks. *IEEE/ACM Transactions on Networking*, 8(1):99–108, February 2000.

Current Grants and Gifts

- Principle Investigator, (Co PI: C. Caramanis) Network architecture and abstractions for environment and traffic aware system level optimization of wireless systems National Science Foundation (CNS-0721532), \$200,000, 09/01/2007–08/31/2009.
- Co-Principle Investigator, (PI: J. Andrews) Network Coding for Mesh and Ad hoc networks CISCO, \$92,000, August 2007.
- Principle Investigator, (PI: G. de Veciana) Distributed embedded memory systems for Pervasive Computing Applications, AFOSR, \$86,399. 05/01/2007–11/30/2007.
- Principle Investigator, Adaptive Traffic-Aware Power Control and Scheduling Techniques for Interference Avoidance in Broadband Wireless Systems, Intel Research Council, \$100,000. 07/01/2006-06/31/2009.
- Principle Investigator, (Co-PI: M. Jacome) Perturbation based computing for the next generation real-time embedded systems, GSRC/MARCO, \$275,000. 08/01/2006–07/31/2009
- Co-Principle Investigator, (PI: M. Jacome; other Co-Pi: D. Chiu), Computational Memory: The Computing Fabric of the Future National Science Foundation, (CPA-0541416) \$200,000, 07/01/05–06/30/09.
- Co-Principle Investigator, (PI: M. Jacome), Novel Mobile and Distributed Embedded Systems for Pervasive Computing Applications CSR-EHS, National Science Foundation (CNS-0509355), \$340,000, 07/01/05-06/31/08.

Teaching and Graduate Student Supervision

- During the last 14 years has taught undergraduate courses in Probability, Statistics, & Random Processes (EE 351K) and Telecommunication Networks (EE 379K) and graduate courses in Probability and Stochastic Processes (EE 381J); Digital Communications (EE 381K); Information Theory (EE 381K); Communication Networks: Analysis & Design (EE 381K); Communication Networks: Technology, Architectures & Protocols (EE 382N); and Advanced Telecommunication Networks (EE 381K).
- Graduate Student Supervision (current/total): Ph.D. (6/15); Masters (0/12). Of the 15 Ph.D. students that have graduated to date, 5 are university professors, 9 have joined industry.

VITA

Gustavo de Veciana (S'88-M'94-SM'01-F'09) received his B.S., M.S, and Ph.D. in electrical engineering from the University of California at Berkeley in 1987, 1990, and 1993 respectively. He is currently a Professor at the Department of Electrical and Computer Engineering and recipient of the Temple Foundation Centennial Fellowship. He served as the Director and Associate Director of the Wireless Networking and Communications Group (WNCG) at the University of Texas at Austin, from 2003-2007. His research focuses on the design, analysis and control of telecommunication networks. Current interests include: measurement, modeling and performance evaluation; wireless and sensor networks; architectures and algorithms to design reliable computing and network systems. Dr. de Veciana has been an editor for the IEEE/ACM Transactions on Networking. He is the recipient of General Motors Foundation Centennial Fellowship in Electrical Engineering and a 1996 National Science Foundation CAREER Award, co-recipient of the IEEE William McCalla Best ICCAD Paper Award for 2000, and co-recipient of the Best Paper in ACM Transactions on Design Automation of Electronic Systems, Jan 2002-2004. In 2009 he was designated IEEE Fellow for his contributions to the analysis and design of communication networks.

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