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AT&T, INC.

HEARING: "THE EVOLUTION OF WIRED COMMUNICATIONS NETWORKS"

UNITED STATES HOUSE OF REPRESENTATIVES

**ENERGY AND COMMERCE COMMITTEE
SUBCOMMITTEE ON COMMUNICATIONS AND TECHNOLOGY**

OCTOBER 23, 2013

Chairman Walden, Ranking Member Eshoo, other distinguished Members of the Subcommittee, thank you for the opportunity to testify today.

Internet Protocol (IP) is the common language almost all forms of technology can understand that enables seamless communication of voice, data and Internet applications among various devices (TVs, phones, laptops, tablets, etc.). Modern IP networks are fundamentally different from, and more dynamic and cost-efficient than, last century's TDM-based voice telephone networks. They offer consumers and communities a world of boundless opportunity, by spurring technological innovation, job creation and economic growth through major capital investment. These smart networks are vital to our nation's economic development and will serve as a cornerstone for us to maintain our global competitiveness. But, with the explosion of IP innovation, today's communication landscape resembles nothing that has ever existed before. To make that last point clear, one need just focus on some recent statistics. Skype just celebrated its 10th birthday by announcing that it had reached a record 70 million people simultaneously using Skype online to communicate. That's out of a total of 500 million registered users. To put those numbers in perspective, in our 2nd Quarter SEC filings, AT&T stated that we had 13.9 million

POTS access lines, and Verizon said it had about 7.2 million POTS access lines in service. In other words, Skype had 3 times as many users simultaneously using its service last month as we and Verizon had total POTS access lines in service. 500 million registered users versus 21 million. In October 2012, Apple's CEO Tim Cook announced that Apple's iMessage platform had been used to deliver 300 billion text messages with an average rate of 28,000 per second. Last June, What'sApp, a very popular over-the-top text messaging application, sent or received 27 billion texts in one single day.

With regard to IP, when consumers speak clearly about what they want, we have to listen. And they're speaking now—loudly and daily. They want wireless, and they want IP. We're listening – over the past five years (2008-2012), AT&T invested nearly \$98B into its wireless and wireline networks; investing more capital into the U.S. economy than any other public company. The investment in our wireless and wireline networks in 2013 is expected to be in the range of \$21B, with increased spending in wireless. In a September 2013 report, the Progressive Policy Institute (PPI) again ranked AT&T No.1 on its list of U.S. “Investment Heroes.”¹ In addition, through its Project Velocity IP (Project VIP), AT&T plans to invest billions of dollars over the next three years (2013-2015) to significantly expand and enhance our wireless and wireline IP broadband networks. Project VIP is a major commitment to invest in the 21st Century communications infrastructure for the United States and bring high-speed IP broadband – wireless and wireline – to millions more Americans. Through this investment we plan to: expand our 4G LTE network

¹ *U.S. Investment Heroes of 2013: The Companies Betting on America's Future*, September 2013, http://www.progressivepolicy.org/wp-content/uploads/2013/09/2013.09-Carew-Mandel_US-Investment-Heroes-of-2013.pdf. AT&T ranked No. 1 in the PPI list issued in July 2012. *Investment Heroes: Who's Betting on America's Future?*, July 2012, http://progressivepolicy.org/wp-content/uploads/2012/07/07.2012-Mandel_Carew_Investment-Heroes_Whos-Betting-on-Americas-Future.pdf.

to cover 300 million people by year-end 2014, more than 9 out of 10 Americans; expand our wired IP broadband network to approximately 75% of customer locations in our 22-state wireline service area by year-end 2015; deploy fiber to 1 million additional business customer locations in AT&T's wireline service area by year-end 2015; bring high-speed IP Internet access via IP wireline broadband and/or 4G LTE to 99% of all customer locations within our 22-state wireline service area by year-end 2015; and increase the density of our wireless network through the deployment of small cell technology (40,000+), macro cells (10,000+) and additional distributed antenna systems (1000+). This densification will further improve network quality and increase spectrum efficiency.

And while AT&T's planned investment is significant, it goes without saying that AT&T is no longer a monopoly telephone service provider. We provide broadband and communications services in a robustly competitive marketplace where consumers have many choices among various providers of networks, services and devices. Consumers and businesses have abandoned and will continue to abandon the POTS network in droves for broadband and mobile services offered by those alternative providers. In Florida and Michigan – two states in our wireline footprint – only about 15% of homes are still connected to the POTS network. This disappearing customer base means, not only that companies, like AT&T, which are no longer monopoly telephone service providers must be permitted – indeed encouraged – to retire their antiquated telephone networks and replace them with next-generation high-speed Internet networks. Indeed, public policy must create the right incentives to spur expanded investment, by *all* providers, in next-generation high-speed Internet networks. To be clear, the economics of maintaining the POTS network while simultaneously deploying broadband everywhere in those states just won't work. There simply aren't enough investment dollars to do both, even for a

company as large as ours. And, if our experience participating in the USF reform proceedings has taught us anything, it is that there are not enough dollars in universal service support to pay the cost of bringing broadband everywhere in this country where it's not present today. If we are going to get broadband everywhere in this country, we have to recognize that it makes no sense to mandate investment in antiquated architecture instead of modern architecture. Indeed, every dollar spent maintaining and supporting POTS and TDM service is an investment dollar that is almost immediately stranded.² And, more importantly, it represents a dollar not being spent on broadband— as the FCC's own National Broadband Plan points out.³ Consequently, the mission of the FCC should be to do everything it can to maximize the amount of private investment in broadband infrastructure so it can minimize reliance on USF subsidies and target those subsidies to where they are most needed.

Last November, AT&T filed a petition with the FCC proposing a path forward to upgrade the nation's communications infrastructure and transition to an all IP network by 2020.⁴ First and foremost, AT&T's petition encourages the Commission to evaluate issues related to the IP transition in a single, unified proceeding to determine what, if any, regulation may be appropriate in the emerging all-IP ecosystem, in which multiple service providers offer competing IP-based services over a variety of wireline and wireless broadband platforms. This IP transition, or

² Regulations that “require certain carriers to maintain POTS – a requirement that is not sustainable – [would] lead to investments in assets that could be stranded.” FCC, *Connecting America: The National Broadband Plan*, at 59 (2010) (“*National Broadband Plan*”), <http://www.broadband.gov/>.

³ “[R]equiring an incumbent to maintain two networks . . . reduces the incentive for incumbents to deploy” next-generation facilities and “siphon[s] investments away from new networks and services.” *National Broadband Plan* at 49, 59.

⁴ *Petition to Launch a Proceeding Concerning the TDM-To-IP Transition*, In The Matter of AT&T Petition to Launch a Proceeding Concerning the TDM-To-IP Transition, GN Docket No. 12-353, November 7, 2012, http://www.att.com/Common/about_us/files/pdf/fcc_filing.pdf.

“Internet transformation,” would effectively speed the development and deployment of high-speed, next-generation IP broadband networks to more American consumers, and, by doing so, provide important consumer benefits (including new choices, better products, services, devices and greater functionality) and help achieve national priorities in areas such as education, healthcare, energy and environmental sustainability.

The Internet transformation is about improving and expanding access to the latest networks and technological innovation, creating untold numbers of new jobs, fostering powerful economic growth, and spurring immense capital investment so that the United States can continue to lead the world. While IP broadband networks and information technology have already driven almost unimaginable economic growth, fully transitioning to all-IP networks will take the promise of this technology to the next level. These next-generation networks support everything from real-time videoconferencing, secure transfers of electronic medical records, e-learning, entertainment, online banking, e-commerce, citizen participation in government and virtually any other Internet application that our best minds can conceive. The innovation enabled by all-IP broadband networks will facilitate distance learning on Indian reservations and small Mississippi farms; it will extend a city doctor’s reach to the most remote areas of Maine and Alaska; and it will give American entrepreneurs access to a worldwide market, whether they live in the Louisiana bayou or in the mountains of Montana:

- **Benefits to Consumers** - Consumers continue to demand more services and internet applications at faster speeds and greater service quality. Transitioning to high-speed IP-based networks will open new opportunities for consumers by expanding access to and use of telemedicine, mHealth patient monitoring devices, digital textbooks and online

distance learning tools, remote smart-grid technologies and capabilities to control energy usage in the home and much more.

- **Healthcare Benefits** - Healthcare is an area ripe for greater efficiency and improved outcomes. High-speed broadband can be the much-needed catalyst for change. For example, high speed broadband on IP-based networks can help improve rural health care. Today, fifty million Americans live in rural areas, where there are higher levels of certain chronic diseases but less than half the number of primary care physicians than those living in urban areas. IP-based networks can play a key role in remedying this problem by enabling access to telemedicine applications and devices that can revolutionize the provision of healthcare, increasing access to physicians and treatment centers, providing new tools to diagnose and monitor patients remotely, and improving data transmission for analysis by medical personnel. These benefits, of course, will be available to all Americans, wherever IP networks are deployed, but they are especially important to rural communities, where the healthcare infrastructure may be less developed.
- **Education Benefits** - IP also can transform education. “Blended learning” is education delivered through a combination of online resources and classroom teaching. Instead of traditional textbooks, students will use digital content delivered through broadband-connected devices. Online learning programs benefit students at every level from elementary school to university and adult education. They level the playing field in education and offer access to new educational opportunities to anyone with a broadband connection, no matter where they live. And online learning platforms can be modified to

reach students with a variety of different needs. Currently, more than 70 percent of school districts in the United States offer online courses and 30 states permit virtual charter schools, which enroll over 250,000 students. Many universities, including MIT, Stanford, and Northwestern, offer K-12 distance learning programs, which together enrolled over 2.5 million children in 2010-2011. In the workplace, 30 percent of employers already use e-learning for training.

- **Economic Benefits** - Building and expanding the IP infrastructure will generate hundreds of thousands of jobs at every stage of the process, from the physical installation of new network infrastructure, to network management, to the thousands of new businesses and jobs that will result from the burgeoning high-speed IP broadband economy. Access to IP-enabled networks also will assist those looking for employment by making it quicker to apply for work online at home or through job kiosks using broadband.

- **Infrastructure Benefits** - Improving and expanding broadband infrastructure also will bring many benefits to other aspects of the nation's physical infrastructure. For instance, IP-based networks and services will improve the ability of consumers to control their energy usage remotely and monitor their home's security. In transportation, everything from smart grid technologies to apps showing traffic congestion will be enabled to ensure a smoother, more energy efficient transportation system.

- **Citizen Benefits** - As more and more government services become available online, IP-based broadband will make citizens' interactions with government easier – everything

from renewing a driver's license to paying taxes. This will be particularly important for those living in rural areas and others who may find it difficult to go in person to a government office.

How can policymakers provide additional regulatory and business certainty to help speed the investment necessary to meet rising consumer demand for 21st Century broadband services?

The FCC can take the first step, and act quickly on AT&T's request to begin the collaborative process with industry, public interest groups, and consumers to implement trials in a few local markets to create a "real-world" test of the transition away from the antiquated legacy telephone network and towards the deployment of networks capable of offering voice, video and high-speed internet services. AT&T has asked the FCC to allow geographically limited areas in which telephone companies and the agency would initiate beta-tests as the first step toward the FCC's goal of a nationwide transition to IP technology. The beta trials will help the FCC better understand the technological and policy dimensions of the IP transition, and in the process, identify regulatory reforms needed to promote consumer interests and preserve private incentives to upgrade America's broadband infrastructure for the 21st century. Companies that participate in these beta tests would: (i) identify the network modifications necessary to deploy IP technologies as quickly and completely as possible while transitioning away from the legacy TDM network; and (ii) develop a plan for the transition, including outlining the steps they will take to notify all customers (including both retail and wholesale customers) of these changes and all aspects of the transition including how they would migrate all customers to replacement services.

The trials would offer clear benefits with no costs. Many consumers have already made the transition from traditional telephone voice service, currently subject to legacy monopoly style regulation, to Voice over Internet Protocol (VoIP) service offered on the IP broadband networks of competitive providers. The trials will provide an opportunity for all stakeholders (including consumers, industry and policy makers) to identify and engage in an informed debate about any gaps in technology, services or policy, and to develop solutions that address parties' concerns. In some cases, the solution may entail changes to proposed replacement services to ensure that they will support essential features and functions following the transition. In others, stakeholders may conclude that particular features and functions no longer are necessary or make sense in an all-IP world, or that entities that historically relied on TDM technology and services will have to adapt their own products and services to be compatible with next generation wireless and IP-based services. The important thing is to commence those trials now so that we, as a nation, can begin to identify and resolve the issues (both known and unknown) that will arise as we complete the transition to next generation wireless and IP-based services while a TDM safety net is still in place so that an orderly transition can occur, along with the proper planning to make that happen.

This does not mean that a move to an all-IP world means moving into a regulation-free zone.

We understand that there will be a set of core consumer protections that exist. While I might disagree with the FCC on particular matters, I would concede readily the FCC can play a strong role in protecting consumers, and it has demonstrated that in recent years. Public safety should fall within the FCC's consumer protection mandate as well. People must be able to reach help in emergencies. No one can disagree with that. But here is another area where the transition to IP can transform that mandate. If robust 911 service is a public policy imperative (and I think it is), then public policy should treat it as such, regardless of the underlying technology used to provide

the service. The obligations should be provided uniformly, both as a matter of competitive fairness and simplicity for consumers.

But while there clearly will continue to be a role for regulations in protecting consumers, it would be illogical and counterproductive to take regulations designed for a monopoly Bell System and try to apply them to modern, competitive Internet communications. To do so would discourage the very investment we need to move the country forward. This means we must discard the old-think philosophy, which relied upon distinctions based on technology or legacy status under the Communications Act. And in cases where the FCC's jurisdiction does not extend to all providers in a relevant market, we should not try to regulate only a subset of that market based on obsolete distinctions. Today, wireline communications are uniquely saddled with restrictions on innovation and the ability to upgrade or replace old technology with new technology. This has to change. While the transition to IP is inevitable, the right rules must be in place – and in some cases no rules at all – in order for the investment and innovation to continue.

In this regard, I have to compliment Harold Feld of Public Knowledge for identifying the key consumer protections needed for a successful IP transition.⁵ We may end up differing on details, but their framework is sound. Clearly the fundamental principles of universal connectivity, interconnection, consumer protection, reliability and public safety are hallmarks of our Nation's commitment to communications and cannot be lost in this process. Yet it can't just be Public Knowledge embracing this challenge. The FCC also needs to embrace the challenge and lead the country through this in an orderly way. In my opinion, the FCC has no more important mission

⁵ “*Five Fundamentals for the Phone Network Transformation*,” PKThinks, July 25, 2013, <http://publicknowledge.org/five-fundamentals-phone-network-transition>.

in the coming years and must start working with the industry to ensure an orderly transition of technologies. These changes are already underway. Consumers are driving them with the choices they make every day. The pace is accelerating. A failure by the FCC to plan risks confusion, disruptions, a squandering of resources, and even a new sort of digital divide. This is an area where we need the FCC to act like the expert agency it is supposed to be. And it's an opportunity for incoming Chairman Wheeler to really distinguish himself and his agency by articulating a vision for a 21st Century FCC and a truly modernized approach to regulation.

I would be remiss if I did not mention one related and equally important issue: our support for FCC reform. Many Members of this Subcommittee, on both sides of the aisle, have expressed concerns that, in the modern broadband Internet era, the FCC still operates under a statute designed for the communications services and markets of the last century. This problem obviously impacts our discussion today, but it also impacts urgent issues like spectrum exhaust and universal service. We look forward to working with the Subcommittee to meaningfully review and reform the way the FCC analyzes markets, determines whether rules are necessary and appropriate, evaluates license transfers, and seeks public input before taking actions.

To conclude, I would like to thank the Subcommittee for allowing me to be here today and for your tireless efforts to promote innovation, job-creation and investment through pro-growth communications policies for the 21st Century. America's communications future is rooted in our ability to invest and innovate, to achieve the networks that go faster, reach further, and bring us closer to the future – a future that will generate economic growth, create jobs, and open new doors of opportunity for every American. Supported by a policy framework designed for an all IP-world, it's time to move forward faster so that America will grow and lead in the 21st Century.