

**Testimony of Roslyn Layton**  
**for the U.S. Senate Subcommittee on Antitrust, Competition Policy and Consumer Rights**  
**Hearing on An Examination of Competition in the Wireless Market**  
**February 26, 2014**

Chairwoman Klobuchar, Ranking Member Lee, and Members of the Subcommittee, it is an honor for me to present today. Thank you for the opportunity to share my testimony on issues relating to competition in America's wireless market. I appreciate the time you and your staffs take to investigate this topic and to solicit different perspectives.

As an American who works abroad and studies the international mobile market, I hope to provide an international perspective. I am a Ph.D. Fellow in Internet Economics at the Center for Communication, Media and Information Studies at Aalborg University in Copenhagen, Denmark. I am also a Visiting Fellow at the American Enterprise Institute's Center for Communication, Technology, and Internet Policy. I am also a Vice President of Strand Consult, an independent consultancy which over its 18 year history counts 170 mobile providers in 100 countries as clients. This testimony reflects my own views.

I believe we share the same goals. We want all Americans to have the opportunity to enjoy the benefits created by wireless networks, services and applications. And we want America to maintain its preeminence in these areas. I have three points which are informed by experience and learning about the wireless sector both in the US and abroad which bear on these two goals.

1. Competition comes from the level of technology, not the number of competitors;
2. Prices in the mobile market reflect the value of America's state of the art next generation networks. Americans get value for money;
3. America's mobile digital economy is highly dependent on operators' investments in infrastructure and handset subsidies.

So, my first point: **Competition comes from the level of technology, not the number of competitors.**

We can examine competition by looking at technology development in mobile standards, infrastructure facilities, services, handsets, operating systems, and platforms. Mobile operators may use different standards, such as GSM, CDMA or LTE, and they compete on a range of features and benefits such as coverage, utility, and value as delivered by these standards. Americans should be especially proud that 4G/LTE networks are available to 97% of the population. Only 26% of Europeans can say the same. Indeed the rest of the world is trying to catch up to this standard which is widely available in the US.

Not only do we have competition between mobile providers, for many consumers and applications, nomadic Wi-Fi appears to compete to mobile wireless.

Handsets, operating systems and platforms are another area that creates competition in the mobile industry. Mobile providers compete to offer the phones, systems, and platforms that consumers want.

We can also observe competition through the development in mobile services. Though mobile operators provide their customers a package of voice, data and SMS, consumers increasingly use their data subscriptions to access competing communication services such as Skype and Facebook Messenger—also called over the top or OTT services, because they exist on top of the network infrastructure and are not provided by network operators. An example in the news of late is Facebook's acquisition of WhatsApp for \$19 billion, which is by far the most popular of the OTT messaging services, with 450 million users.

Indeed at \$310 billion and \$175 billion, respectively, both Microsoft and Facebook have larger market caps than any mobile provider in America, including AT&T and Verizon. While \$19 billion is a staggering sum, as estimated by Informa and Analysis Mason, four times this amount is lost by the mobile industry worldwide every year as users switch to OTT services. This is a classic example of the innovator's dilemma and demonstrates that the bigger a mobile provider grows, so do the incentives for an upstart innovator to disrupt its revenues. This suggests that the market can better discipline the large players than any regulator.

So technology itself is a form of competition through standards, infrastructure facilities, software, and services. These innovations tend to flourish when market actors follow opportunity, not from government decree.

This brings me to my second point: **Prices in the mobile market reflect the value of America's state of the art next generation networks. Americans get value for money.**

A number of studies demonstrate that the volume of Internet consumption in the US is one of the highest of the world. Americans use 5 times more voice and twice as much data than their European counterparts. Further, Americans tend to have faster connections and more advanced devices.

But a more important issue is that mandated low prices in Europe come at a high long term cost. Europeans are being shortchanged on the future because operators there can't afford to make investments in next generation networks, and furthermore, why should they want to? If you have a managed access regime, any investment you make means you have to share it with your competitors. It's not a system that creates an incentive for competition in infrastructure. So in practice in Europe, you may have one mobile network being shared by 20 or more resellers. This is not the way to go if America wants to lead in the development of next generation mobile networks.

Looking at prices and value over time shows how things consistently improve in America's mobile market. Compared to 30 years ago, the value of mobile experience today with improvement in phones, speeds, data and price has improved by a factor of 6 million. To get the equivalent of the iPhone twenty years ago, would have cost you \$3.5 million. Only ten years ago it took about a week and \$1200 to download the equivalent of a CD of music. Today that service is standard in many mobile subscriptions.

I want to make a special point for the Chairwoman because I know that she cares about mobile services being affordable and available for everyone. In my home state of Florida we have many Minnesotans

who come for the winter, and my own parents who are seniors, sometimes struggle with mobile technology that is evolving faster than they can keep up with it.

The marketplace has a mobile product that suits every budget. But we can do a better job to help seniors adopt mobile technologies. This is something that happens at community centers, libraries, churches, and homes. In the best scenario, grandchildren will teach grandparents about mobile technologies. In fact, some of the people who can benefit most from mobile technologies are seniors, who use phones and tablets to play bridge, share family pictures on Facebook, and check health information. Technology adoption is a social, not an economic, process.

The other thing we can do to improve the availability of mobile is to remove the barriers at the local level for deploying mobile infrastructure. This is a problem in the US and around the world which I have studied in detail. And whether by design or accident, municipalities often hinder the deployment of mobile infrastructure. They may insist on exorbitant rents; they may require unreasonable conditions and fees; they may oppose masts and towers for a variety of reasons. Similarly private property owners who may have land or buildings where mobile infrastructure needs to be deployed, often exploit the process as a way to enrich themselves. I have found in certain markets, that rents paid by mobile providers are often 4 times higher than the market rate. If we want to ensure that all of America's rural areas have sufficient mobile infrastructure, then we need to remove these barriers and standardize the process for rolling out mobile infrastructure. The Federal Communication Commission has launched a process to do this, and my company Strand Consult has participated with its knowledge about this topic.

Realizing the benefits of wireless in our society requires a collective effort. It's not just the responsibility of the carriers. We have to ensure that the conditions are right so that infrastructure is deployed and that everyone has the education they need to take advantage of wireless services. When we take care of these two things, the existing mobile products and services can serve the many needs at fair prices.

Now I come to my final point, **America's mobile economy is highly dependent on operators' investments in infrastructure and handset subsidies.**

While mobile operators and OTT providers compete, they are highly dependent on each other. This is what's called co-opetition, a portmanteau of the words competition and cooperation. As these companies grow, innovate, and serve an increasingly global user base, they need to be increasingly capitalized.

In 2012, according to the Progressive Policy Institute, AT&T and Verizon were the top two U.S. firms in terms of capital investment, investing nearly \$35 billion between them. Along with other fixed and wireless providers, some \$75 billion was invested in the US economy in networks. This is twice the rate per capita as providers invest in Europe. This investment has been ongoing in the US, even though the financial crisis. It not only drives jobs, it fuels the mobile ecosystem with valuable infrastructure and ensures that companies such as Facebook reach their users in every more innovative ways.

But let's be clear. To make investments of this magnitude requires economies of scale. While it's a quaint idea of having dozens of little mobile providers, it's inefficient and it doesn't create scale required to compete in the global economy. It was a European notion, tried and failed, and now even EU leaders themselves have admitted doesn't work. The situation is so bad in Europe that operators now invest outside of Europe; it's the only way they can earn any profits.

American mobile operators also play an important role by subsidizing the cost of popular handsets. In 2007 AT&T and Apple made an exclusive deal to launch the iPhone. As most consumers would not pay \$700 outright for a phone, AT&T subsidized the handset to get consumers to adopt the device. Today it's available across the board. It's hard to overestimate the impact of the iPhone in the imagination of its users and how it has stimulated the development of mobile applications. To the extent that Apple is a rich company today, much of its success can be attributed to a wealth transfer from mobile operators to Apple in the form of device subsidies.

By investing in next generation networks and subsidizing handsets, mobile operators have created the foundation for a larger mobile ecosystem to flourish. Mobile is changing the way we do everything from commerce to transportation to health to education—even government. In fact, it's the OTT providers that benefit even more from the network investments than mobile operators.

As I mentioned in my editorial in *Roll Call* on February 25 the silos defined in America's Communications Act from 1934 no longer reflect reality. We can see with the emergence of over the top technologies, the communications are more diverse, and our legal framework for regulating communications and ensuring consumer protection needs an update.

While the telecom industry is in ruins from its earlier glory in Europe, the Internet industry never got off the ground in the first place. The barriers for the development of the broadband market have also hindered the development of Europe's Internet industry. Of the world's 25 top Internet companies, 15 come from the US, just 1 comes from the EU. This means that Europeans use American-made operating systems, American-made search engines, American-made social networks, and American-made mobile apps such as WhatsApp, now Facebook.

With 28 nations, 17 languages and 11 currencies, the EU may never be able to create the true single market enjoyed by the US today. In fact America's greatest asset as we enter the wireless future is something we must credit our forebears: our large federal country with a common language and currency, and to policy decisions that have ensured that Internet access remains a national market. This feature allows not only mobile providers to get scale, but all the startup mobile applications that piggyback on top of those networks.

As we meet today here in Washington, 70,000 mobile professionals gather in Barcelona for the Mobile World Congress. They want to know how to get the success that America enjoys in mobile today, but they will also talk about the future of the web---which is mobile. The new battleground is next generation mobile for developing countries, and we want to ensure that those countries use our American made mobile products and services. In fact, America's digital goods and service sent abroad, over \$350 billion annually, are our third largest category of exports.

But we can't rest on our laurels. The US may have the lead today, but this can change. Chinese, Korean and Japanese firms want to win these markets. For that reason we need to ensure that our mobile innovations are best. Creating strong, highly capitalized American companies in networks, handsets and applications is good for America and it ensures our global competitiveness.

In summary, America's success and leadership in the wireless sector is dependent on a variety of competing mobile technologies. Americans benefit from this competition through a wide range of mobile services, applications, and devices provided with network subscriptions that offer value for money. Finally the mobile ecosystem is complex and highly dependent on operators' investments in infrastructure and handset subsidies.

Thank you for the opportunity to testify today.