

FCC CHAIRMAN JULIUS GENACHOWSKI
“JOBS AND THE BROADBAND ECONOMY”
LIVINGSOCIAL
WASHINGTON, DC
SEPTEMBER 27, 2011

Thank you, Tim O’Shaughnessy, and congratulations on Living Social’s remarkable success. It’s been barely two years since LivingSocial offered its first deal for a restaurant in DC’s Chinatown. Since then, you’ve expanded to 550 markets and attracted more than 40 million subscribers. You’ve created a product of real value to consumers and to businesses, particularly small businesses, helping them expand their sales, lower their costs and put people to work. And LivingSocial itself has created nearly 2,000 American jobs.

It’s no accident that I’m giving this speech here. For starters, we got an unbelievable deal on the room rental.

The bigger reason I’m here is that LivingSocial’s story is part of a larger story. It’s the same story we just heard from Warren Brown, who’s using LivingSocial and wired and wireless online tools to expand his Cakelove bakery chain from one store to seven, delighting more and more customers and hiring more and more people. It’s the story of Detroit, where energetic entrepreneurs are turning auto parts warehouses into tech centers and business incubators (and the Lions aren’t the only comeback story). It’s the story of Blue Valley Meats, a small business I visited in Diller, Nebraska that’s nearly tripled its workforce thanks to e-commerce.

It’s the story of broadband – high-speed Internet, wired and wireless – and how it’s transforming our economy and the way we live: creating jobs in large numbers, boosting opportunity all over the country, and driving our global competitiveness.

For two years, I’ve been speaking about how broadband is indispensable infrastructure for America in the 21st century. I haven’t been alone on this. Each of my colleagues on the Federal Communications Commission has done the same, and together we have refocused the agency on broadband and accomplished a great deal to help drive our broadband economy.

Today, I’d like to address a few topics: first, why broadband is so vital to our near-term economic recovery and long-term prosperity; second, how positive developments in the broadband economy give us strong reason for optimism about our economic future; and third, what we must do to expand broadband access and adoption, and ensure that America has broadband infrastructure that spurs world-leading innovation, economic growth and job creation.

We are at a pivotal moment in our country’s history.

Our nation faces tremendous economic challenges. Millions of Americans are struggling. More than half of U.S. families include someone who has been unemployed during the downturn. New technologies and a hyper-connected, flat world mean that some categories of 20th century jobs, especially in manufacturing, are unlikely ever to return to previous levels. It’s understandable that many Americans worry that our country’s future won’t be as bright as our past.

But it’s also true that the U.S. broadband economy is strong and growing, opening doors to new opportunity every day.

Innovation in wireless and wired broadband is thriving, and private investment in Internet applications and infrastructure is on the rise. New broadband-enabled industries – bringing with them new jobs – are opening their doors every day and growing, on mobile platforms, as well as in homes and businesses, in schools, and in hospitals.

Broadband is a bright spot in our overall economy and helps light a path to broad economic health and widespread opportunity.

That broadband Internet is transforming our world is something LivingSocial knows well, because you are on the cutting edge.

Facebook. Twitter. iPhones. Tablets. App stores. Android. The Kindle. The cloud.

Just five years ago, these things either didn't exist or we'd never heard of them. Now, it's hard to imagine life without them.

They are fundamentally American innovations, invented here, rolled out here, and being exported from here to the rest of the world. These and many of the world's most exciting new products and services – built on today's high-speed communications infrastructure – bear the stamp “Innovated in the USA.”

And there's far more innovation ahead of us than behind. Moving forward, we won't just be talking into our devices, they'll increasingly be talking to each other. With machine-to-machine technologies, cars, for example, will be equipped with sensors that can automatically take evasive action to avoid accidents. When an accident causes major traffic delays, your alarm clock will be notified to wake you up early so you'll get to work on time. Your dishwasher will run when it's most efficient and least costly. People with chronic disease will have wireless devices that notify doctors about a sudden change in condition.

The changes being ushered in by high-speed Internet are at least as promising as those brought about by electricity. Instead of appliances on the electric grid, it's now applications on the information grid.

Tom Friedman and Michael Mandelbaum recently wrote that we are at “the most profound inflection point for communication, innovation, and commerce since the Gutenberg printing press.”

Our ability to meet this moment and seize the opportunities of this new communications technology is critical to our recovery and our economic future.

One reason I'm confident about our future is that, as Friedman and Mandelbaum say, America has a proven formula for adapting to change and growing our economy. They call this formula the “Five Pillars of American Prosperity”: world-leading education; immigration policies that invite the world's best and brightest; investment in basic scientific research and development; laws that encourage entrepreneurship while safeguarding consumers; and the building and continual modernizing of our infrastructure.

These pillars are interrelated. Improving infrastructure supports education and entrepreneurship, and vice versa.

Infrastructure, innovation and economic success have always been tied together in the United States. Railroads and highways connected people to each other, facilitating commerce, unleashing ingenuity, and fueling economic growth. Telephones did the same. We didn't get where we are by chance. We got here by choice.

In their time, those elements of infrastructure formed the connective tissue of a modernizing economy.

Today it's broadband Internet.

Our broadband infrastructure consists of the fiber, cables, cell towers, and airwaves that enable digital Internet traffic to travel anywhere in the world in a fraction of a second.

\$8 trillion are exchanged over these wired and wireless networks each year. If you shut down the Internet, you'd shut down the economy.

Over the past fifteen years, even taking into account the recent difficult economic times, the Internet has enabled as much economic growth as the Industrial Revolution generated in its first 50 years.

In the U.S., the Internet accounted for 8 percent of America's GDP growth from 1995 to 2009. Since 2004, it's accounted for 15 percent of U.S. GDP growth, so the Internet is only growing in importance.

Since World War II, technological innovation has been responsible for more than half of our economic growth.

In the digital age, broadband is our innovation infrastructure.

Broadband allows innovation to come from anyone, anywhere – from the tinkerer in the garage to the kid in a dorm room.

Broadband empowers individual innovators, and also creates a previously unimaginable ability to engage in collaboration, which, as Steven Johnson has shown, is the way many breakthrough inventions actually come about.

And broadband substantially boosts productivity, a key driver of sustainable economic growth.

Cloud computing is about to take the productivity-enhancing benefits of the broadband Internet to the next level.

I recognize that the positive link between innovation, productivity and job creation can sometimes seem counterintuitive.

The disruptive impact of high-speed Internet is as undeniable as the lost jobs at video stores, newspapers or the yellow pages.

But the key fact is that the Internet is creating more jobs than it's eliminating. McKinsey recently concluded that broadband Internet creates 2.6 new jobs for every one lost. Let me repeat that. The Internet is creating 2.6 jobs for every one lost.

These are real jobs being created right now.

Companies like Amazon, Apple and Google have been adding jobs by the thousands.

Newer businesses like LinkedIn and Twitter are growing jobs at an even faster pace, and at the same time promoting broader job growth by offering services that are helping people and businesses market themselves and connect with others.

A recent study by University of Maryland researchers put some numbers around the job-creation leverage of Internet companies. Facebook employs 2,600 people – a big number standing alone. The researchers concluded that counting the developers building applications for the Facebook platform, Facebook has been responsible for the creation of 182,000 jobs.

Many of these jobs are software and other engineering jobs. And that's great, because we won't succeed in the hyperconnected, hypercompetitive 21st century economy if we're not educating, attracting, and employing world-class engineers.

But as important, many jobs being created by the broadband economy are not engineering jobs, and are not just in Silicon Valley and other tech centers. Broadband is enabling job creation at different skill levels, and all over the country.

LivingSocial is proof of this. Yes, you have great engineers. And in just the last three years LivingSocial, Groupon and others in this space have created over 3,000 street-level sales jobs in the U.S. in more than 200 different local markets, and growing.

And your products are helping bricks-and-mortar businesses grow, including small businesses.

This is another point that's too often overlooked: the way in which broadband Internet is a catalyst for small business opportunity, helping small businesses grow and prosper all over the country.

Consider eBay and Amazon. They employ nearly 50,000 people directly. Again, that's great. And it's a small percentage of the small-business jobs they are facilitating. More than 1 million entrepreneurs and growing – a large percentage of which run small businesses – are selling products on these platforms, generating revenue that helps them hire and pay their employees. And new platforms are developing to help entrepreneurs sell their goods – like Etsy, a platform, in its words, for “very-very small businesses” that's already generating \$400 million in annual sales.

Just last month in Jeffersonville, Indiana, I joined a coalition of companies called Jobs4America to announce the creation of 100,000 new broadband-enabled call center jobs in the U.S. over the next two years, all over the country, many on-shored from overseas.

Many of these at-home jobs create meaningful employment opportunities for people with disabilities, veterans, seniors, and stay-at-home parents. Pioneers like LiveOps have for years had the vision to use broadband to defy old barriers of location and create at-home jobs for people with disabilities and others. Last month, when announcing 1,000 new at-home jobs, Accent Marketing's CEO Tim Searcy said point-blank, “Broadband makes all of this possible.”

It's reassuring to know that the Internet is creating jobs at a faster rate than it is displacing them, but there are no guarantees about where those new jobs will be created in the global economy.

The world is connected. Capital can flow anywhere, and jobs will follow. Let's not kid ourselves. I hear this directly from my counterparts overseas: Our global competitors want to be centers of broadband innovation and job creation.

To make sure that the U.S. is getting a full and growing share of broadband-enabled jobs, we've got to get our broadband infrastructure right. If we don't, we'll still have job losses here, but the new jobs will increasingly be created in other parts of the world.

Broadband infrastructure is essential for the U.S. to remain the world's economic leader. But it's not sufficient. Fiscal and housing challenges must be addressed, for example, and our education system must be improved. But neglecting our broadband infrastructure will guarantee that we lose ground in the 21st century economy. And taking the right steps on broadband can generate real and large job creation and economic growth even as the country tackles other issues.

Fortunately, we are well positioned to lead in the global broadband economy.

The U.S. captures 30 percent of all Internet revenue worldwide and more than 40 percent of net income.

We lead in broadband innovation overall, and we've regained the lead in mobile, a fast-growing and critically important sector.

We have the highest number of 3G subscribers, and thanks to successful FCC auctions and a digital TV transition completed successfully in 2009, we've freed up spectrum for mobile broadband and are ahead of the world in deploying next-generation 4G networks that will offer speeds we're accustomed to on wireline networks.

Our "apps economy" is envy of the world. With U.S. software developers leading the way, there are now more than 500,000 mobile applications available, and apps sales are projected to approach \$38 billion by 2015. It wasn't long ago when the mobile apps economy didn't exist at all. Mobile, local, and real-time are each big trends, creating jobs and opportunity here now and with huge potential for the future.

The U.S. is also the first to free up unlicensed "white spaces" spectrum. The FCC's order last year represented the largest release in twenty-five years of unlicensed spectrum, and the first release of high-powered unlicensed spectrum, a powerful new platform for innovation. Earlier this month, we took another step forward, announcing the testing of the first white spaces database. U.S. companies will have a head start in developing new devices, applications and services for this spectrum – "Super Wi-Fi," machine-to-machine, and more – and we'll be in a position to export to the world and help grow our economy here.

The promise of the broadband economy today is reflected by the private investment it is attracting. Despite the slow economy, private investment is increasing substantially in both broadband infrastructure and in companies at the edge of broadband networks.

Broadband providers invested tens of billions of dollars in wired and wireless networks in the first half of 2011, a double-digit increase from 2010. Capital investment at large tech companies is also robust, in the tens of billions of dollars, and experiencing very healthy increases. Venture capital investment in Internet start-ups has returned to its highest levels since 2001 – attracting more than \$2 billion in the most recent quarter.

A new Deloitte study estimates that investment in 4G mobile broadband networks, which is already underway, will add up to \$151 billion in GDP growth over the next four years, creating 771,000 new jobs.

So add construction jobs to the broadband-powered job-creation I catalogued earlier.

Since I became Chairman, the FCC has taken a number of steps to promote innovation and investment in our broadband economy.

In developing America's first National Broadband Plan, we set out a vision and an ambitious strategic agenda for seizing the opportunities of high-speed Internet and ensuring U.S. leadership in the global broadband economy.

Last year we adopted a strong and balanced framework to preserve Internet freedom and openness. We said these widely supported rules of the road would increase certainty and predictability in the marketplace, unleashing new innovation and investment across the broadband economy. And they have.

We've removed more than fifty unnecessary regulations, and lifted needless restrictions on the use of spectrum. We streamlined the process of attaching broadband wires and wireless equipment to utility poles. We adopted a tower siting shot clock to speed mobile broadband deployment.

We've advanced reforms to connect more schools, libraries, and hospitals to fast, affordable Internet, and to increase the speed to market of health-related communications devices and apps. We've taken steps to empower consumers and promote competition.

We've gotten a lot done. But there is more to do.

In our country we overwhelmingly rely on the private sector to build out our broadband infrastructure, and that's the right course.

Government has a limited but essential role to play to facilitate private investment and innovation, and ensure that infrastructure gaps are addressed. Government must efficiently utilize assets it controls or manages, like spectrum and rights-of-way. It must ensure that the programs it manages are fiscally responsible and meet the challenges of today, not the past. And it should take smart steps to promote broadband adoption and digital literacy, including by empowering consumers and promoting competition.

Consistent with these principles, the FCC is pursuing an ambitious agenda to Mobilize America, Connect America, and Empower America.

We need to close four broadband gaps.

First, we need to close the spectrum gap.

Spectrum is the invisible infrastructure on which mobile communications run. Demand for spectrum is rapidly outstripping supply.

Smartphones are now the majority of phones being purchased, and that percentage is increasing at

a rapid rate. Tablets are taking off.

Compared to the standard phones we upgraded from, the demand smartphones place on spectrum isn't double; it's not triple. It's 24 times more. For tablets, it's 120 times as much.

Failure to free up more spectrum for mobile broadband will stifle mobile innovation and result in growing consumer frustration with congested networks and dropped calls.

The spectrum crunch is the single biggest threat to one of the most promising parts of our economy.

The Deloitte study that predicts the creation of 771,000 new jobs as the result of 4G deployment also warns, "[I]nsufficient spectrum could cause the U.S. to go from leader to laggard in the global competition to claim the benefits of 4G technology." 150 carriers in sixty countries have 4G deployment commitments and if those countries overtake us, Deloitte's projected number of new 4G jobs would be cut in half or worse.

There's much we need to do to free up spectrum for mobile broadband, but the single biggest step is voluntary incentive auctions.

Under this proposal from the National Broadband Plan, spectrum licensees like broadcasters would voluntarily supply spectrum into an auction, in exchange for a share of the proceeds from the auction. It's an incentive-based approach, grounded in strong free-market principles, that would free up large blocks of beachfront spectrum for mobile broadband while preserving a strong and healthy TV business, and generating \$25 billion for taxpayers.

This proposal enjoys broad and bipartisan support. Companies representing a trillion dollars in revenue have supported it, from mobile to tech to consumer electronics. More than 110 of the nation's leading economists have endorsed it, including Nobel Prize winners and former members of both Republican and Democratic administrations. It's even been supported by a number of TV station owners who recognize that these auctions would be a win-win.

It's exactly the kind of step Congress can take to help unleash investment, create jobs, and raise billions of dollars that could go both to deficit reduction and to fund the mobile broadband public safety network recommended by the 9/11 Commission.

Thanks to the commitment of Senators Rockefeller and Hutchison, this legislation was approved by the Senate Commerce Committee on a 21-4 bipartisan vote.

But this bill still hasn't become a law. A spectrum crunch looms, and the costs of delay are significant and grow every day.

The second broadband gap we need to close is the deployment gap.

Right now, about 20 million Americans couldn't get broadband at home if they wanted to. Broadband infrastructure simply isn't available in their communities. We can't afford to have tens of millions of Americans left out of the broadband economy.

That's why we're moving to modernize the Universal Service Fund for broadband.

Last century, our country made a bold commitment to achieve universal access to the predominant communications technology of the time – analog telephone service. But now, subsidizing the past is standing in the way of advancing the future.

Earlier this year, the FCC launched a proceeding to modernize this outdated program from telephone to broadband, transitioning wasteful spending to an efficient Connect America Fund. The reforms we're pursuing would both boost the broadband economy by extending broadband—including mobile broadband—to unserved areas, and meaningfully create jobs.

We're in the homestretch of our process now, with extensive focus and engagement by each of my colleagues on the Commission, and a commitment to get reform done.

We're also committed to taking further steps to accelerate broadband buildout.

Unnecessary regulations at the federal, state, and local levels can increase broadband construction costs by as much as 20 percent and slow down the buildout of these high-speed networks. I encourage Congress and the relevant federal and state transportation agencies to implement the "Dig Once" concept: laying broadband fiber and other infrastructure whenever there is road construction or repair. Congresswoman Eshoo has proposed wise legislation on this.

Another concept that can pay dividends for our economy is the deployment of ultra-high speed networks as centers of information-intensive collaboration and innovation.

That's why our Broadband Plan called for 1 gigabit per second connections to at least one anchor institution in every American community. I was encouraged to see that more than 30 universities around the country recently formed a coalition called Gig.U to accelerate the deployment of these superfast networks to university communities. This can be an important part of our national effort to close the broadband deployment gap.

Third, we need to close the broadband adoption gap.

Nearly 100 million Americans – almost one-third of our population – aren't signed up for broadband at home. That's about a 68 percent adoption rate, which compares to a 90 percent adoption rate in, for example, South Korea or Singapore.

Broadband adoption is increasingly necessary for participation in our economy. Eighty percent of Fortune 500 companies now do all of their job postings online, and require online applications.

Teachers want all of their students to be able to access the Internet for homework or research papers, but over 50 percent of kids in low-income and minority communities don't have broadband at home. A high schooler from Florida wrote to us that she did her homework by parking outside the local library at night and connecting to its Wi-Fi.

We need a better solution for our students, and for all the people who could benefit from the innovation and cost savings on the Internet around health care, energy, and basic public safety.

And we need to close not only the adoption gap, but the related broadband skills gap.

Many tech positions – entry-level and more advanced – are staying open for months on end; even in this down economy, 63 percent of hiring managers say a talent shortage is the primary reason.

Indeed.com is a company that aggregates online data about job listings. According to their data, there are 12 large metropolitan areas in which the ratio of job postings to unemployed people is one to one. That's one job posting for every person looking for a job.

These jobs aren't getting filled because too many job seekers don't have the right skills.

As LinkedIn CEO Jeff Weiner wrote earlier this month, "fixing this imbalance and matching job openings with willing talent will go a long way toward restarting a virtuous cycle: when companies expand, they pay more taxes, consume more services (enabling other companies to expand), and open up opportunities for others to be promoted or hired."

And as Jeff pointed out, while some unfilled jobs require engineering or extensive computer software expertise, many open positions require only basic digital skills – knowing how to use a computer, how to search, how to process a basic Internet transaction. Basic digital literacy.

Other jobs require skills or certifications that can be gotten online in a relatively short time – like training for entry-level positions in the health care industry, or being certified in the use of Microsoft Office.

Last week, with the FCC's engagement and support, two companies announced significant new programs to increase affordable access to broadband in the home and to digital skills training. I've challenged other service providers and companies across the broadband economy to step up and take concrete steps to promote broadband adoption, while also working with us on new approaches to existing programs that can and should be reformed to support broadband access.

We need to tackle all of these challenges with a real sense of urgency, because the costs of delay are significant and growing every day.

If we Mobilize America, Connect America, and Empower America, we will grow our economy and create new jobs, boosting confidence in our ability to compete and thrive in this changing world.

Let me close with this. A powerful indicator of the growing significance of the tech sector to our broader economy came a few weeks ago when Apple surpassed ExxonMobil as the most valuable company in the world.

Of course in the mid-1990s, everyone thought Apple's best days were behind them.

But not Steve Jobs. In an interview back then he said, "The cure is to innovate our way out of our current predicament."

Well that's the right prescription for our country. Now is not the time to think small or look backward. We need to think big and build the future like we've always done.

I've spoken today about the many ways in which that's already happening in the broadband economy – American entrepreneurs and innovators, small and large, inventing, investing, and creating new jobs and opportunity today.

Let's build on these successes, accelerate them, and address the threats that could slow down our great American engine of innovation.

That requires smart policies to extend broadband infrastructure everywhere and to everyone, to seize the opportunities to expand broadband's invisible infrastructure - spectrum, and to empower U.S. entrepreneurs to out-innovate the world.

We can do this. America can do this. Thank you.