

**FCC CHAIRMAN JULIUS GENACHOWSKI
REMARKS AS PREPARED FOR DELIVERY
GSMA MOBILE WORLD CONGRESS
BARCELONA
FEBRUARY 27, 2012**

Thank you Tom Phillips for that introduction, and thank you GSMA for welcoming us. I'd like to welcome my colleagues FCC Commissioner Robert McDowell and Ambassador Phil Verveer.

Let me start with a few facts.

In the U.S., mobile ecommerce sales surged to \$6.7 billion in 2011, a 91% increase from 2010. They are projected to hit \$31 billion by 2015, a jump of more than 400%.

During the last week of 2011, more than 500 million apps were downloaded in the U.S., and more than 1 billion apps were downloaded worldwide. In one week.

About 490 million smartphones were sold worldwide in 2011, exceeding the number of PCs sold over the same period.

A new report this month projected that global sales of tablets will surpass PC sales by 2015 in just three years. And experts predict that advances in sensors and machine-to-machine technologies will give us 50 billion connected things by 2020.

I wouldn't say that, when I became Chairman of the FCC in 2009, I saw all of this coming. But, like you, I did think we were in the early innings of changes in mobile that would be powerful and transformative.

I was appointed to this office by President Obama after working more than a decade in the private sector. And in my time as an executive and investor I saw mobile go from a futurist fantasy, to a nice-to-have part of a company's gameplan, to a must-have strategic priority.

Today, every company in America -- entertainment, retail, news, you name it -- knows it needs to have a mobile strategy, and that's becoming true around the world.

The first major initiative I undertook after becoming FCC Chairman was developing a National Broadband Plan. Commentators said our Plan was pioneering, and I'm proud of that. Let me emphasize one way in which that was true. Our Plan was the first broadband plan to treat wireless broadband as extensively as wired broadband.

At the time, many people wondered why we placed so much emphasis on mobile broadband. Nobody's wondering now.

Today, I want to speak about some of the opportunities of this mobile revolution, the tremendous momentum, and offer some thoughts on how to build on that momentum and seize the opportunities.

Momentum: the number of mobile broadband subscribers worldwide is projected to grow from 1.2 billion to 5 billion by 2016.

Think about that: 5 billion by 2016. Four times as many people as today will be able to access the Internet anytime, anywhere, from mobile devices.

The opportunities are amazing.

Let's start with job creation. A new study confirms that wireless innovation and investment has already contributed to the creation of 1.6 million U.S. jobs in just the past few years.

The apps economy barely existed in early 2009. Today it supports nearly 500,000 jobs.

Mobile micro-payments are here and will grow, helping business productivity, and helping people without effective access to banks and credit cards.

4G is here. President Obama has set a goal of deploying 4G services to cover 98% of the U.S. population within 5 years. Six U.S. carriers have begun rolling out 4G, with potentially a 10X improvement over 3G, and Deloitte estimates that investments in 4G mobile broadband networks will add up to \$151 billion in GDP growth over the next four years, creating 770,000 new jobs.

As the Financial Times said yesterday, new 4G devices are "distant cousins from the slabs that once only made calls and are rather designed for use as a mobile computer for internet access on the move."

And so mobile innovation is also helping address some of our most pressing social challenges. Like education, where mobile broadband powers interactive digital textbooks; health care, with remote monitoring and diagnostics; energy, where mobile connectivity enables a smart grid, smart homes, and smart businesses that improve energy efficiency. Public safety is another area of opportunity; our Congress just approved funding to construct a nationwide interoperable mobile broadband public safety network, and we have turned our attention to Next Generation 911 so that people can send texts, photos, and videos from their smartphones to emergency response centers.

Jobs, economic growth, improved education, health care, energy, public safety and more. It's the companies here at GSMA making all of this innovation and opportunity possible.

Mobile carriers providing the services that connect us are deploying new technology advancements like LTE, delivering more data more efficiently with lower latency.

Network equipment manufacturers are building out advanced infrastructure that sustains our mobile networks.

Device makers continue to raise the bar with products that delight and amaze.

Chip manufacturers continue to confirm Moore's law – constantly improving the speed and capacity of the processors that power these devices.

Software developers keep coming up with new apps to entertain and inform us, and to boost productivity, generating growing demand for mobile services and devices.

The ecosystem of companies represented here is innovating in mutually reinforcing ways, a virtuous cycle, creating tremendous value, and inventing the future.

At the FCC, our mission is to unleash the potential of communications technology – including mobile broadband – to benefit our economy and our society. We believe in the power of dynamic free markets to drive these benefits, and that government has an important but limited role to play in enabling innovation and investment in communications technologies and services, promoting competition, and empowering consumers.

We also recognize that this is an incredibly fast-moving space, that no one has a crystal ball to predict the future, and that humility is a value to be honored in policymaking.

So what can government do to help seize the opportunities of mobile, consistent with this philosophy? Here are two categories we've been focused on at the FCC.

The first is strengthening incentives for investment in mobile infrastructure.

Wireless infrastructure doesn't build itself. It requires many billions of dollars in investment – overwhelmingly from private companies.

Government can help spur investment by removing barriers to private sector mobile buildout.

Consider tower and antenna siting. In the U.S., before a wireless company can erect a new cell tower or put an antenna on an existing tower, it needs approval from local authorities, and U.S. companies often had to wait for more than a year to get their applications approved. Last year the FCC adopted rules to establish a 90-day shot clock to speed the local approval process. As smaller cell and micro-siting become more important to address growing demand, what other steps can we take to remove obstacles to smart network buildout? We'd like to take them.

At the FCC we've also adopted rules easing access to utility poles, and – acting on a recommendation of the FCC's National Broadband Plan -- our Congress just passed a law that will make it easier to put wireless antennas on government buildings.

Consider cloud computing. This rapidly growing sector offers attractive investment opportunities. But restrictions on free flows of data could slow the growth of the cloud and deter investment. Governments should reject unnecessary regulations on cloud computing, including rules that limit the physical location of data and code.

Another way government can encourage investment is by ensuring that mobile operators have room for business model experimentation.

The mobile sector is changing at a dizzying rate. Keeping pace with all this technological innovation – and keeping pace with exponentially rising demand -- requires business innovation as well as technological innovation.

At the FCC, we've recognized that for mobile carriers, like other businesses, matching price to cost can yield efficiency and other benefits; we recognize that investment won't occur without revenue and without returns on investment -- and that is why we haven't prohibited usage-based pricing.

We addressed these issues in the context of our Open Internet rulemaking, and we've shown that it is possible to implement an open Internet framework that protects speakers and entrepreneurs, and incentives for investment across the broadband ecosystem.

Our aim with this framework was to incentivize investment throughout the mobile economy, from applications to network infrastructure -- and that's what's happened. Since we adopted our open Internet rules last year, U.S. broadband providers have invested tens of billions of dollars in wired and wireless networks in the first three quarters of 2011, a double-digit increase over the same period in 2010. Internet start-ups, meanwhile, attracted \$7 billion in venture capital in 2011, almost double the 2009 figure, and the most investment since 2001.

In our work, we've recognized that regulatory certainty and predictability promotes investment.

We've also recognized that competition is a core driver of investment and innovation in all parts of the economy, including communications and mobile. Our free-market system is built on some core principles, well described in William Lewis's *The Power of Productivity*, which draws on the McKinsey Global Institute's studies of economies around the world: productivity drives economic growth and job creation; innovation and investment drives productivity; and competition drives innovation and investment.

That's why promoting competition remains at the core of the FCC's work.

Now, even with investment-promoting policies, there will be areas where there is no private sector business case for mobile expansion. That's why, in our overhaul of the FCC's Universal Service Fund last year, we made access to mobile voice and broadband an express universal service goal.

This was the first time the U.S. recognized mobile service as an independent universal service objective, and we created a new Mobility Fund to support 3G and 4G networks in rural areas.

Using a market-based reverse auction, we'll be allocating \$300 million this year for mobile broadband expansion, growing to \$500 million annually in ongoing support in the years ahead. And wireless providers will also be able to compete for additional funding for residential and business broadband.

So far I've talked about ways government can promote investment in mobile's physical infrastructure. Another area where government action can spur mobile innovation and investment is by unleashing spectrum – mobile's invisible infrastructure.

And we need to enter the next era of spectrum policy innovation.

Over the past several decades, two major spectrum policy innovations have led to enormous value creation for economies and societies all over the world. The first is spectrum auctions, and the second is the provision of spectrum for unlicensed use like Wi-Fi.

The simultaneous multiple round spectrum auction was pioneered by the FCC in the 1990s and FCC auctions have raised more than \$50 billion in revenue, and created more than 10 times that much in economic and social benefits for the American people - more than half a trillion of dollars in benefits.

More than 25 years ago, the FCC decided to free up so-called "junk bands" for low-power unlicensed use – a platform for innovation where the results weren't foreseen or foreseeable. The actual result was breakthrough technologies like cordless phones, Bluetooth, and Wi-Fi. The economic benefit created by applications on unlicensed spectrum is estimated at up to \$37 billion a year.

I don't believe that auctions and unlicensed are or can be the last two major spectrum policy innovations, and in the U.S. we are moving forward with what I believe will be two of the next major spectrum policy innovations: incentive auctions, and long-range unlicensed spectrum.

Smartphones and tablets have fundamentally changed the spectrum equation. Spectrum planning over the last decade did not anticipate the sharp and dramatic increase in demand on spectrum we have seen and that we will see.

I began talking about the looming spectrum crunch in 2009 shortly after I became Chairman. And this audience knows better than anyone that if we don't free up more spectrum, we're going to run into a wall that will stifle mobile innovation, hurting consumers and slowing economic growth.

I'm pleased that at the World Radiocommunication Conference in Geneva earlier this month, the international community recognized the importance of more spectrum for mobile broadband and placed this on the agenda for the next WRC conference.

In the U.S., in working on freeing up new spectrum for mobile broadband, we've recognized that a major issue is reallocation of spectrum that is being inefficiently used.

This includes reallocation of spectrum from government uses where spectrum can be used more efficiently by commercial providers. In the U.S., as elsewhere, the traditional timetable for reassigning spectrum from government to commercial use is no longer tenable, and we need to accelerate this reallocation and think creatively about placing incentives on government users to deploy spectrum efficiently. We also need to begin serious testing of sharing government spectrum with commercial users.

On the commercial side, inefficiently used spectrum often isn't the fault of existing licensees but instead traces back to government allocation decisions that predated auctions of spectrum for flexible use.

Some older allocations shield licensees from market forces. Why not use market forces today to reallocate spectrum to its highest and best use? That's the idea behind incentive auctions, which we proposed in our National Broadband Plan.

The idea is that current licensees – like over-the-air broadcasters -- would have the option to contribute some or all of their spectrum for auction in exchange for a portion of the proceeds from the auction.

This solution would bring market forces to bear on spectrum licensees that have been shielded from competitive dynamics for years.

Incentive auctions are no longer just a proposal. Last week, President Obama signed legislation giving the FCC the authority to conduct the world's first incentive auctions. We expect that this new form of spectrum auctions will eventually become a tool used by countries around the world, just like the original spectrum auctions.

The new incentive auction law is concrete recognition by U.S. policymakers of the need to free up more spectrum for mobile broadband, and the need for ongoing innovation in spectrum policy.

That's the good news. But the new law also raises concerns. It contains provisions that could reduce the amount of spectrum we would otherwise recover for mobile broadband and that could limit the potential benefits of incentive auctions to the mobile industry and mobile consumers.

Our job at the FCC is to implement the law, and we'll do so faithfully and expeditiously. Our staff of course has already begun studying the new provisions, and you can expect to see the agency taking concrete steps toward implementation in the near future.

The second major spectrum innovation I mentioned is long-range unlicensed spectrum that is available nationwide and coordinated via databases.

The FCC recently moved to free up the largest chunk of spectrum for unlicensed use since the 1980s – what we call ‘white spaces.’ This unlicensed spectrum holds tremendous promise to become another value-creating breakthrough on the order of magnitude of Wi-Fi. We’re already seeing promising innovation and deployments in this space. The new law puts some constraints on the spectrum we can provide for unlicensed, but if demand for new unlicensed services – from super Wi-Fi to machine-to-machine – threatens to exceed supply, I’m confident that the U.S. government will take the right steps.

Addressing the spectrum crunch and seizing the mobile broadband opportunity will require all stakeholders to work together. And as we work together on ways to address physical and invisible mobile broadband infrastructure, we must also focus on empowering consumers.

It seems likely that as consumer reliance on exciting new mobile devices increase, and as consumer technologies change so rapidly, some consumer issues are inevitable. What’s certain is this: When carriers get ahead of consumer issues, everyone wins.

The U.S. experience with “bill shock” is a good example. Bill shock is the term used in the U.S. to describe the experience of consumers who see an unexpected spike in their mobile bills, often due to unknowingly exceeding data limits or incurring roaming charges. As complaints mounted, U.S. mobile carriers recognized that this was a problem and, working with the FCC, carriers agreed to a common-sense solution – warning alerts to consumers when they are about to incur charges.

Another area of challenge: stolen phones. There has been a sharp increase in the U.S. in thefts of mobile devices, particularly smartphones and tablets, endangering the safety of millions—both physical safety and the safety of the sensitive personal information stored on the device.

I commend the GSMA for establishing a database of phones that have been reported stolen so that those devices can’t be reactivated by someone else. I understand this has helped deter theft in European countries where carriers have signed up.

In the U.S., law enforcement officials are concerned that adequate systems don’t now exist to deter smartphone theft. This is a serious consumer issue, and we are taking it seriously.

The potential of mobile broadband to drive economic growth, job creation, and a better quality of life for people all over the world is enormous. This is why we must work together on smart policies to drive investment and innovation, to address challenges, and to unleash the enormous opportunities of mobile Internet access.

In doing so, we must heed the lessons of what has worked to unleash the opportunities of Internet, and reject proposals that could stifle Internet innovation, including proposals we've seen recently in international discussions regarding Internet governance

Some have proposed creating a new international regulatory body to govern the Internet, replacing the longstanding multi-stakeholder governance model that has enabled the Internet to flourish as an open platform for communication and innovation.

If adopted, these proposals would be devastating to the future of the Internet, including the mobile Internet, and the U.S. government has consistently and strongly opposed such proposals.

As President Obama said last May in his International Strategy for Cyberspace, the decentralized, cooperative, layered architecture of the Internet, "fuels the freedom of innovation that enables economic growth. It fuels the freedom of expression and association that enables social and political growth and the functioning of democratic societies worldwide. The United States stands firm in our conviction that when the international community meets to discuss the range of Internet governance issues, these conversations must take place in a multi-stakeholder manner."

This is why at the OECD, last year, I worked with my colleagues in the U.S. government and in other countries on a broadly supported communiqué that emphasized the need for continued support of the multi-stakeholder model. It also described the significant threat that international regulatory regimes, whether through the UN or some other organization, would stifle the growth of the Internet, which has fostered so much global innovation and economic growth.

Mobile Internet is transforming the way we live, and your companies are leading the way. Working together, we can seize the opportunities of the mobile revolution and build a brighter future for each of our countries and the world.