I. INTRODUCTION

Good morning. Thank you so much for having me here today. It is such a pleasure to be on this campus and to see all of these bright faces. I think that Catholic University has such a loyalty here, and an alumni group that is something really special. Treasure your time here because you are really blessed, and to be part of this family and this community is something really terrific. You have a very interesting day with a lot of distinguished speakers, so without further ado, I will get into it.

I was trying to figure out what to speak on today since I actually don’t have to talk about DTV for once! I was working on a topic and just coming back to a law school stirred up old memories and old habits—like procrastination. Our refrigerator is clean and my closet is clean! Really, I have so many things I want to talk to you about that it is hard to choose.

II. BACKGROUND

I had an extraordinary tenure at The National Telecommunications and Information Administration ("NTIA") for five years. I saw incredible technology changes; really a huge transformation of what the industry looks like in this

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information-communications-technology portfolio. I think we always struggle with what term to use. We call it telecommunications, technology and communications. Internationally, they call it the information-communications-technology portfolio.

I joined NTIA when the sector had been hit hard. Actually, I am going to take a step back and go through some of the places where I have been because it tells you where we are and where we might be going. When I went to law school, I carried one of the very first portable brick cellular telephones. My law school was not in a very good location of downtown Houston, so my parents wanted me to be safe, and it was used for emergencies only because it was so expensive. After practicing law for about as many years as it had taken to get my degree, I ran into my old boss from the State Department. Many of the State Department alumni had moved to the Cellular Telecommunications Industry Association ("CTIA"). And so like so many young people, I said, "Gosh, I'll move to Washington for two years." And, of course, like so many other young Washingtonians—or not so young anymore—I'm still here.

We were at CTIA when the industry was really young. We liked to say that we were the poster children of competition. Everyone got along very well, mostly because all of the attention was at the wireline level. We in the wireless level got to work on unified foundational policy. We did things like making 911 a national number—kind of funny that it wasn't at that time, but it wasn't. We passed anti-cell phone cloning legislation. We were worried about brain cancer, so we instituted a study on health effects of cell phones. We were worried about cell phones being banned from cars because of driver distraction. Margaret Tutwiler, who is a public relations genius, came up with a campaign about how wireless means safety and cell phones are important in emergency situations. The Wireless Heroes program was created: people who saved a life using a cell phone. I think they still have that program. But driver distraction is still a problem. Blackberries, but with no phone, appeared. I think I was one of the first in town with one, but we used them like pagers.

Even at this cutting-edge, cell phone industry association, we still used dial-up Internet. I can remember going to seminars like this one where people would talk about broadband, and we would joke around and draw little caricatures of girls playing instruments—you know, "broad band." But, as soon as I got my hands around it, I thought, this is cool; this is really interesting.

So, I quickly left and went to join Covad Communications, one of the first competitive DSL companies. This was actually the real poster child of the Communications Act. I remember speaking with my good friend Jonathan Adelstein, who was up on the Hill at the time, and he said, "Wow, they used to say plastic, and now they say stock options." So that was a pretty exciting time.

We fought the old monopolies, which wanted to thwart competition and pro-
tect their customers, with innovation. We were the darlings of Wall Street and of Capitol Hill. And then like others, we went into bankruptcy. But to be clear, they came out of bankruptcy and are still around. So Jonathan and I would then joke, "Well, they should say plastic again." Which I guess, if you want to talk about it today, you should just say cash.

III. THE NEXT GENERATION

When I joined NTIA five years ago, the question was how are we going to get the next generation of telecommunications facilities built? How could we incentivize companies to build these big pipes that would lead us to the land of plenty and the land of fast broadband?

Well, you know how the UNE-P decision went. Competition for competition's sake was not the kind of competition that we needed. We needed facilities-based competition. First of all, we were a market-based, fiscally conservative administration, so it was clear this government was not going to build these networks. We believed that the best way to get these networks built was not for the government to do so, but rather, to incentivize the companies to do so. Much like the incredible success that we have seen in the wireless industry, the government's role is to set the environment. So, what could we do to incentivize these companies to invest in this infrastructure?

Well, we could "level the playing field," which is probably the most overused term in all of telecommunications advocacy, but in this sense means regulate like services alike despite how they are delivered. We could deregulate, and we did. We cleared out the regulatory underbrush; we got rid of legacy rules on the new networks. And although it is taboo to say now, clearly, the "light regulatory touch" that we followed has worked.

I have given plenty of speeches about the comprehensive economic, regulatory, and technological approach that the Bush Administration had towards broadband. And you can read about it in a little ditty we have called Networked Nation. But I am not here to talk about that. What I do wish is that someone labeled the term broadband policy sooner and that it was given a higher profile. But you find at the White House that there are a lot of competing priorities and not always does yours make it to the top to talk about.

But the policies were there and broadband subscribers grew from less than five million to more than one hundred million. Meanwhile, the price of broadband has been cut in half and speeds have increased ten fold. And fiber—Verizon alone is talking about an $8 billion build in net capital from 2004 to 2010.

One thing that seems not to get recognized enough in our discussions about our broadband market is that we have multiple platforms that are competing.
And this is a real success. At the end of the day, facilities-based competition, if you look around the world, we have more players than anyone else, will bring us more innovation, give us more choices, and hopefully cheaper prices.

I believe that the most important policies and the changes that have taken place are in wireless. Seeding the market with so much new spectrum—licensed and unlicensed—has to be one of the most important accomplishments of the recent years which will continue to foster growth for the future. At NTIA, we conducted and instituted efficiencies that helped to clear 174 MHz of spectrum for new wireless broadband devices. We passed the Commercial Spectrum Enhancement Act and are relocating federal agencies for commercial winners in the AWS auction. This relocation effort has not been easy, but is coming in at, or under, most cost and time estimates. It is an effort that will hopefully be duplicated in the future. Furthermore, we called for a spectrum inventory, and for the first time ever we have a Federal Strategic Spectrum Plan. Hopefully, the FCC will do the same, and we can have a complete National Strategic Plan. We worked with the DOD and NASA to open up 5 GHz for unlicensed use.

One of the things that I learned over and over at NTIA is to lay a firm foundation of scientific evidence. While you all will be paid to advocate and bless us all for the employment, engineers can find technically feasible and mutually agreeable solutions to a lot of the rhetorical advocacy. I look at ultrawideband or broadband over power lines as very good examples of that. NTIA also launched a test bed, which I think is a great way to explore more intensive use of the nation’s airwaves. I suggest that NTIA and the FCC work together on this more in the future.

The initiatives at NTIA have led to an environment that has more efficient, more transparent, and more flexible spectrum use. Spectrum is clearly a key resource, and I encourage the NTIA and their federal partners to keep at it. There has been a lot of progress made, and there has been a lot of groundwork laid, but there is still a lot more to do. I equally encourage the FCC to pursue the same initiatives.

I think that we got a lot of things right, and I encourage the Obama administration to stay on this path. Broadband now holds the promise for our children’s improved education, our next generation of healthcare, smart energy, and true public safety interoperability. Integration of communications technologies will enhance our lives, our economy, and our global competitiveness. Continuing to make sure the rules foster and do not burden this critical infrastructure is imperative.
IV. FUTURE

So that brings me to the future. What are some of the current challenges? Well, a broadband national strategy is one of the most important things on the list. What an exciting task. We now have multiple networks that have been built, and they are competing, but they are not everywhere, and they are not affordable to all.

For the last few years, there has been talk of a plan to get rid of the inaccurate ZIP code-based mapping, to truly map where broadband exists and where it does not exist, and then to fund the unserved areas. That is a prudent way to approach it. I hope that in the rush to get all the stimulus money out the door, we do not lose track of that logic. I will also put a plug in for technology neutrality. Clearly intercarrier compensation and universal service need reform, which is long overdue. As wireline is moving towards wireless, and it is all moving to the Internet, broadband should be and will be part of a reformed USF program. But there must be restraint on the growth of the fund to allow for this inclusion.

Public safety interoperability: NTIA received $1 billion in grants to give out in conjunction with the Digital Television Act. They were supposed to be related to the spectrum that public safety was going to receive from the 700 MHz transition. However, Congress got in a hurry and changed the dates and the law, and we had to get the grants out. They were good grants, but in working with the Department of Homeland Security (“DHS”) on these grants, it gave me insight into how difficult this issue really is. I know it is very frustrating that after 9/11 and Katrina, we still do not have basic interoperability, but you know, policemen really don’t want to talk to firemen, except for in an emergency. DHS will tell you that many of the basics are found in training and exercises. That is were I think our industry can really help. Policemen are not telecommunications experts. I wanted to do a basic IP overlay to ensure that not only we had voice interoperability, but also that we had data. However, we still do not have an inventory of what is out there. So what do you overlay? The D Block clearly holds a very important part of this critical need for first responders. I urge true top-level leadership, working together with all the parties, and the money, to solve this critical issue.

As so much of our communication moves to the Internet, how do we make sure it is open and available? Network neutrality seems to be a term that was won when it was constructed. How can anyone be against that? But what does it really mean? I am for network management, and I believe that there is room for all of them. I think we need to remember that often times, the best solutions are ones that are mutually agreed upon and that standards of conduct don’t always come from government. We have terms, but we cannot really define them very well today, so how are we going to set regulations? This is a place to
tread carefully. I am not saying that blocking access is O.K.—because it is not. But is paying more for preferential treatment so bad? We do not know how this great tool is going to evolve, and we must be careful to ensure that it continues to do so.

Two other things I want to mention are cyber-security and privacy because they are also integral to generate confidence in the use of these amazing new networks. Furthermore, content: While it is terrific that convergence brings this medium to so many devices, we have to make sure we have the tools to protect our children from the harmful influences on them.

One more interesting piece of the puzzle is jurisdiction and how today’s issues are blurring the traditional lines. I am sure you all studied the Comcast case. It is likely that the FTC and maybe not the FCC should have addressed this particular action. I mentioned DHS in the public safety space; and cyber-security—well, it has stakeholders everywhere. The same thing is also playing out in the international arena. You have ICANN, the Internet Corporation for Assigned Names and Numbers, a private-sector led organization for technical coordination with plans to introduce new generic top-level domains. Well, that has policy implications that governments have an interest in. Yet governments can only provide non-binding advice through the Government Advisory Committee.

Then, you have where governments go, the International Telecommunication Union. The ITU is also struggling with what its role is going to be with respect to the Internet. We are seeing jurisdictional issues here nationally, but it is also going on internationally. We need all of the players, private sector, and governments, to work together to make sure that development of the Internet continues to thrive.

Just to round out my thoughts, I think pro-competitive trade policies are critically important. As we look at this time of national hurting first and international hurting second, we need to make sure that we do not forget that this is a global world. We need the rest of the world participating in trade policy to make sure it works.

The good news is that we have a really talented team that is taking over. Interim FCC Chairman Copps has done an incredible job in the time that he has had to instill goodwill, cooperation, and productivity at the FCC. In the Senate, Senator Rockefeller is a truly detailed man who is a take-the-computer-apart-and-explain-it-to-me kind of leader. I think he actually understands the tubes.

Then, there are all of you. There is going to be a lot of work ahead because we know that this great industry will not stop innovating. I encourage you all to participate, and I am pleased to have been here today. Thank you very much.