Commissioner Susan P. Kennedy

Address to the
TechNet / AeA / Silicon Valley Manufacturing Group Luncheon

Cisco Systems Campus, San Jose, California
December 3, 2004

Good afternoon. Thank you, Sue, for that kind introduction. I want to thank TechNet, the Silicon Valley Manufacturing Group and AeA for having me here today. It's truly an honor.

I have to admit that one of the most dangerous things I've learned in my two years on the PUC is how easy it is to make waves. All I had to do was say "Think before you regulate" and that was so shocking to people in this strange little world that I've been called a "disciple of Milton Friedman" and "the most anti-consumer regulator in the country" by some of my colleagues.

But my personal favorite happened at a conference in Boston earlier this year. I was on a panel talking about changes in the telecom industry and how, because of Internet telephony, the cost of making a phone call today is virtually zero, which, of course, disrupts our entire intercarrier compensation system. This guy from a rural Midwest carrier who was in the audience – and who didn't realize that my Chief of Staff was sitting in front of him – breathlessly whispered to his colleague, "She is so *scary*."

You know, change *is* scary. And in order to understand what's happening in the IT and telecom industries today – and how groups like TechNet, SVMG and AEA can make a difference the process – you'd better understand that fear.

Internet telephony has set off a wave of abject fear in the regulatory world of telecommunications:

- Regulators fear losing jurisdiction.
- Legislators fear loss of funding for popular programs like Universal Service. They fear rate increases. They fear losing tax dollars.
- Incumbent carriers fear loss of access charges.
- Rural carriers… well, rural carriers fear everything – but they especially fear loss of subsidies.

Everyone is pointing to VoIP as the cause of all these terrible things. Simply put: Internet Telephony scares the bejeebers out of everyone.

Because it *changes everything* we know about telecommunications. There is no more line between telecommunications and information services. There is no more line between local and long distance, between int*er*state and int*ra*state.

These distinctions are how we've organized our world. They are the source of our regulatory authority. And because of VoIP, the only lines that exist today are those that are drawn by and for regulators to facilitate the *status quo*.

When faced with the unknown, a regulator's survival instincts kick into high gear. "*Preserve jurisdiction first, ask questions later*." With legislators, it's "Protect the *status quo*."

The fact that, with the help of many of you in this room, we managed to get most of the Silicon Valley congressional delegation to support exclusive federal jurisdiction over VoIP is no small victory. It's enormously important that Silicon Valley take a leadership role as Congress attempts a rewrite of the '96 Telecom Act – not just to develop a new regulatory structure, but to develop a new way of thinking.

The regulatory treatment of VoIP and IP-enabled services is the line separating the past from the future. It's the line between fear of change and faith in innovation.

You need to understand the source of the fear in order to address it. CPUC staff put together data for legislative hearings that show that the migration to IP-telephony (if left unregulated) will lead to a 40% reduction in funding for universal service programs, including the high-cost, low-income subsidies and deaf and disabled programs, by 2008.

Understand that, from a legislator's perspective, *those are fighting words*.

I tried to convince a legislative committee in Sacramento that the loss in funding for these programs will happen *no matter what* – because those funds are generated from a cost-based system, and IP technology is driving the cost of telephony *down* across the board – but to them I was speaking Greek.

There is only one thing keeping regulators and legislators from saddling IP-telephony with some version of the current regulatory regime. They can't figure out how to get at it without "regulating the Internet" *per se*, which is still enough of a taboo that policymakers are forced to tread lightly.

But that barrier is weakening. Look at the recent debate in Congress over maintaining the ban on Internet taxes and its impact on state and local revenues.

Estimates are that telecommunications companies and their customers pay on average an effective tax rate of about 18 percent, compared with an average sales and use tax rate of about 6 percent on other goods and services. That's a lot of tax revenue.

The Multi-State Tax Commission issued a report last year estimating that if the telecommunications industry migrates its services to the Internet, and the ban on telecom taxes migrates with it, the revenue loss to state and local governments would be $22 billion.

More ominous than that – organizations that advocate for public services like the National Center for Education Statistics are now calculating the impact of tax preemption on IP-telephony in terms of the number of teachers, policemen and firefighters that will be lost.

For every $1 billion in lost tax revenue, they estimate state and local governments will lose 20,000 policemen on the streets, or 20,000 firefighters, 25,000 teachers, 27,000 hospital workers…

Put this combination together. You have:

- Regulators in protection mode;
- Legislators and local officials afraid they'll lose tax funds and have to lay off police and firefighters;
- And labor unions warning of the loss of high-paying jobs to unregulated (read: non-union) Internet companies (based in *New Jersey* no less);

And you have a powerful coalition of forces determined to protect their piece of the status quo in the face of this disruptive new technology called Internet telephony.

VoIP makes it impossible to maintain the *status quo* – and our job has to be to convince policymakers that that is a *good thing* – good for jobs, good for the economy, good for consumers.

Take the "digital divide," for example. Everyone wants to bridge it. Everyone agrees that Internet access is the key that unlocks economic growth, education, access to health care. But we're so busy trying to throw subsidies and government mandates at "the problem," that we can't see that we don't even have a definition of what "the problem" is anymore, or how some of our "solutions" will actually hurt the very people we're trying to help.

The "digital divide" still roughly refers to the technology "haves" vs. the "have-nots." It used to refer to those who had computers and those who did not. Then it became those with access to the Internet and those without. Now we use that term to represent the gap between those with access to broadband and those without.

Let's put this in context. Broadband usage is exploding – 39 million people are using broadband in the US, according to the Nielsen Net Ratings – a 49% year-over-year increase. In California, from 2000 to 2003 broadband usage grew more than 350%. Our per capita penetration rate is 42% higher than the national average. Even in rural areas in California, we've gone from 3% of homes using broadband in 2000 to 19% in 2003.

The adoption rate for the Internet and broadband is faster than any technology we've seen in the last century.

TechNet has certainly played a leadership role in talking about how the *importance* of high-speed Internet access has also grown exponentially.

Between 2000 and 2002, the number of people getting news online grew by 50%. Those seeking health information online grew 59%. Government services online grew 56%. e-commerce, 63%. Online banking, 127%.

The bottom line is that if you don't have high-speed access to the Internet, or your school doesn't have access to high-speed Internet, you are living in a second-class world.

But with PDAs and cell phones becoming Internet capable, most laptops being WiFi enabled and more WiFi hot spots cropping up every day – it's getting hard to define who has access and who doesn't for purposes of figuring out *where* the digital dividing line is.

There is still a digital divide. With technology advances, we see the gap closing on a geographical basis, but becoming more noticeable on the basis of income and education level.

So the policy question of what we can or should do to increase "access" to broadband first depends on how you define the problem.

Rural areas have a broadband penetration rate that is about 10% below urban and suburban areas. We know that there are technological and cost hurdles that are unique to rural areas because of loop length and population density.

What does a company need to bring broadband to a rural community?

1. Customers

2. Capital

3. Permits

Policymakers tend to look at the digital divide, particularly in rural areas, and say "If you build it, they will come." And there are some companies that are investing in infrastructure – digital switches, fiber optics – with exactly that "faith-based" investment strategy (most notably, Verizon).

But policymakers and advocates, even TechNet, tend to focus on the *supply* side of the equation – deployment – when the problem (if there really is one) is on the *demand* side. The fact is that *no* company is going to spend millions of dollars to deploy in an area where there isn't a customer base to recover the capital investment and the chance to make a profit.

In terms of demand for high-speed connections, rural users are no different than their urban and suburban counterparts. About 38% of rural users say they would like to have a high-speed connection, while about 62% say they would not – the same as other communities.

But that's where the similarities end.

The strongest predictors for Internet use are age, income and education.

- Rural areas have a significantly higher senior population, and seniors are the least likely to go online.

- Young adults, ages 18 to 29, are the most likely to go online, yet this is the smallest age group in rural communities.

- College graduates, who are very likely to be Internet users, make up a smaller percentage of the rural population than in urban or suburban areas. About 10% of the rural population holds a four-year degree, compared to 20% for urban areas.

- Finally, and most importantly, 47% – nearly half – of rural households earn under $30,000 a year, which is a significant threshold for Internet use – compared with 29% of suburban and 39% of urban residents. The $30,000 a year mark has proven to be a huge breakpoint in terms of usage rates.

- A GAO study found that 80% of dial-up users in rural areas would not be willing to pay more than $10 extra per month to upgrade to broadband.

Research by the respected Pew Internet and American Life Project found that, by and large, supply *exceeds* demand even in rural areas.

So *access* is not the main problem in the rural areas, *price* is. Based on these facts, I would argue that the lower broadband penetration rate we see today in certain areas, like rural communities, is not the kind of "problem" that can easily be solved with government solutions.

Here's where the technology revolution comes in – and where the development of a new regulatory framework based on market forces is crucial.

Convergence

VoIP and advanced wireless technologies have sparked a torrent of innovation in the last few years, shattering traditional business models based on separate offerings of voice, video and data services over separate networks. Cable companies now offer phone service; Phone companies offer video; Internet providers offer anytime, anywhere calling plans and wireless carriers offer email, Internet access and even video news delivered to consumers on their cell phone.

The traditional models are gone. Technology convergence is the future of the telecommunications industry, and the options and benefits available to consumers are limitless.

The one element these advanced services all have in common is the increasing need for broadband.

We've already established that price (or relative "value") is the key to increased broadband access. Well, *convergence* is the key to lower prices and greater value.

Industry surveys show that at a price point of $30, broadband usage increases significantly. One consumer survey in 2004 showed that at $29.99 per month, 46% of dial-up users would be more likely to upgrade to broadband.[1] That figure may be a little lower if you break out rural areas.

[1] Jupiter Research, "The DSL Market Opportunity," (January 2004).

The typical household in California spends on average $160 per month for all its telecommunications services.[2] It spends $40 per month on wired telephone service, $55 per month on cell phone bills,[3] $10 to $20 per month on dial-up Internet service, and an additional $44 per month on cable or satellite video programming. 55% of households also spend $30 to $50 on high-speed Internet access. And now more than 62% of households buy two or more services from *the same company*, compared with just 42% two years ago.[4]

As technology convergence continues, providers are competing with each other to offer multiple services bundled together as a package. This competition is driving the price of *all services*, including broadband, lower. Virtually every major telecommunications provider today offers a 10% to 30% discount to customers who buy multiple services from their company:

- Verizon's "Freedom" plan currently offers unlimited local and long distance calling with DSL for $89.95 per month, or with DirectTV for $97.95 per month. For packages that include all three (unlimited calling, DSL and DirectTV), customers would pay approximately $127 per month.

- East Coast cable giant Cablevision, in a battle for customers with Verizon, offered a promotion in 2004 called the "Triple Play" that included telephone, high-speed Internet and television services for $29.95 each with a one-year contract.[5]

- Cox Communications in San Diego offers combination packages including standard cable, digital telephone, high-speed Internet and digital cable programming for $99.99 (unlimited local calling) and $124.99 (unlimited nationwide calling).[6]

- Time Warner Cable offers roughly the same package as Cox for $127 per month.

The CEO of SBC Communications, Ed Whitacre, summed up what the future looks like in a recent interview with the *Wall Street Journal.* He expects SBC to become a state-of-the-art communications company that challenges the cable giants head-to-head with a full slate of video services, Internet access, wireless calling and all-distance phone service. And he expects the cost of the combined package (including wireless) to decline to about $100 per month.[7]

This convergence is irreversible, and it's happening *now*. By the end of 2006, more than half of all 110 million households in the U.S. will have the option of getting phone service from their cable company.[8]

And the nation's largest cable providers, including Comcast, Time Warner and Cox Communications, are discussing the formation of a joint venture to add cell phone service to their bundled packages.[9]

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[2] TNS Telecom Report, http://www.TNStelecoms.com, (October 2004).
[3] CTIA Semi-annual Survey, http://www.ctia.org, (November 2004).
[4] TNS Telecoms Research, as quoted in the *Wall Street Journal*, "All in One," (September 13, 2004).
[5] *Wall Street Journal*, "Here Comes Cable…," (September 13, 2004).
[6] http://www.cox.com/sandiego/coxcombo.asp, (December 2004).
[7] *Wall Street Journal,* "Meet the New TV Guy," (November 24, 2004).
[8] *Wall Street Journal*, "Here Comes Cable…," (September 13, 2004).
[9] *Wall Street Journal*, "Cable Titans Discuss Offering Cellular Services," (November 8, 2004).

Which brings us back to the task at hand: Developing a new regulatory framework that promotes technology convergence and gets out of the way of innovation and competition.

All the state and federal statutes were written before technology convergence blurred the lines between services and service providers. In fact, they were written with the exact *opposite* assumption.

The FCC, for example, divides its regulatory responsibilities among bureaus based upon the *platform* over which the service rides. They have the Wireline Bureau, the Wireless Bureau and the Broadcast Bureau (which includes cable). Within two years, you could have three different bureaus regulating different slices of services offered by the same company.

State statutes and regulations are even worse. We apply different regulatory regimes on companies providing the exact same service based on which platform they use. Worse still, we even apply different regulations to companies using the *same* platform depending on whether they're an incumbent carrier, a competitive carrier, a rural carrier, a wireless carrier, non-dominant exchange service, or a cable provider. Totally different rules, even for something as static as an environmental review for digging a fiber trench.

SBC has to come to the PUC 30 days in advance to seek permission to reduce rates or offer a new service. MCI has to send us a letter 5 days in advance. Comcast, Cingular, Vonage, Covad – no such restrictions. If a competitor files a protest to a pricing petition (which they *always* do) then we do hearings, comments, reply comments, maybe order cost studies, more comments and then a vote of the Commission.

Can you even imagine any other business having to wait 18 months to lower prices in response to competition?

There have been three petitions pending before the PUC from the time I was appointed to the Commission. The petitions seek to lower prices by hundreds of millions of dollars. One finally was voted out after a year. The other two are still hung up in the process more than a year later.

Telecom regulations have become so outdated and so convoluted that competitors are using the regulatory process itself as a weapon.

If Verizon wants to lease empty parking lot space to an affiliate – or even a church group – they need permission from the PUC. That can take months, and if it's protested, years.

If Level 3 wants to string fiber on existing utility poles – it has to go through the PUC. Again, it takes months. We had a case on yesterday's Agenda that took more than two years.

The problem is that the telecommunications regulations were not designed for technology convergence and intermodal competition. In fact, they couldn't even contemplate it. When the 1996 Act was written, cell phones still weighed 2 lbs and came in a large carrying case. The first Palm Pilot had not yet been sold. Instant messaging didn't exist.

Congress will be rewriting the 1996 Act starting next year and should begin addressing some of these issues on the federal level.

In California, we have taken the mirror opposite approach. Instead of working to update our regulations and focus our efforts on encouraging investment in 3G networks – *we went in the exact opposite direction*.

In August, the PUC passed an omnibus 250-page "Consumer Bill of Rights" that *expands* many of the existing monopoly regulations to wireless carriers, to VoIP carriers -- and to any company that offers voice services.

250 pages of detailed, prescriptive rules governing *every* interaction between the company and a customer – from the moment customers inquire about their service to what charges can appear on customers' bills after they terminate – right down to how fast a company is required to answer its phones for questions, what kind of staffing it has to have for a toll-free call center (which is mandatory under the rules), what goes on its web site (which is also mandatory), what information has to be given to a customer at the time of sale, what customer bills have to look like, what font size it uses on its receipts, what information must be highlighted in its brochures… the list goes on and on and on.

Oh, and they are required to respond to a question from a potential customer within three business days – in writing, if the customer chooses. And the rules explicitly allow class action lawsuits to enforce the rules in addition to PUC oversight. Finally, the PUC gave itself the authority to determine what deceptive advertising is.

Who in the world is going to offer voice services if doing so triggers compliance with this morass of mandates?

Pretty much every carrier in the state has gone to court to have the rules overturned. We've already had two smaller wireless carriers warn that they will likely pull out of the state because they can't afford to implement the new rules.

If you think the FCC's recent ruling declaring VoIP services to be under federal jurisdiction protects this emerging technology, think again. The FCC's ruling relates to economic regulation. States still have jurisdiction over "terms and conditions" for anything deemed to be a telecommunications service. It's under this provision that the PUC is trying to extend monopoly-style regulations on wireless carriers.

Let me be clear. I believe there is a strong role for states in regulating the telecommunications industry, specifically with regard to consumer protection. Even VoIP carriers are going to be subject to the same critical consumer protection standards, such as e911, anti-fraud provisions, privacy laws, and laws against cramming. But the way the PUC went about this is totally backward, and will drive investment and innovation out of the state – hurting the very consumers it thinks it is protecting.

California regulators have to change their way of thinking about this industry first, and that's where you come in.

In the next 12 months federal and state regulators will be deciding – by our action or our inaction – what the market will look like; which investments are safe or too risky; where critical infrastructure will be built and who will access it.

Our decisions – right at the PUC – will either clear the path for investment and deployment of next generation infrastructure, or condemn entire communities to yesterday's technologies with companies hooked on the *status quo* for survival.

Silicon Valley – and you specifically in this room – have the most important role to play. You have a great deal at stake.

Silicon Valley no longer has the luxury of rolling its eyes at the PUC's actions from the safety of your board rooms. What we do affects you directly. When SBC announces a WiFi roll out, Cisco benefits. When Verizon invests in digital switching, Juniper hires hundreds of people. Billions of dollars in investment decisions that affect your companies are directly impacted by the regulatory environment today.

If you think I'm exaggerating, ask Verizon. The PUC recently stopped Verizon's multi-million dollar investment in next-generation digital switches in California *in its tracks* while the PUC sorts out what rules it wants to apply. *Guess which California tech company makes those switches.*

We need a new way of thinking about telecom regulation in this state. California should be the national leader in broadband and next generation technologies. People shouldn't be looking to Greenhaven, Michigan for state-of-the-art wireless broadband projects – *they should be looking to San Jose or San Francisco*.

I went up to Sacramento a few times to talk to legislators about the changes in this industry and the need for them to support dramatic changes in our regulatory framework. They're interested, they care, but *their eyes glazed over*. I thought I was going to lose one of them in his soup right in mid-sentence.

This is complicated stuff - TechNet and Silicon Valley Manufacturing Group and AeA need to proactively go to Sacramento and Washington and start talking to policymakers about making California a *leader* again.

TechNet needs to explain to legislators what innovation means in terms of jobs for their constituents, economic development for their communities, and helping schools in their districts.

Silicon Valley Manufacturing Group needs to stop focusing almost exclusively on electricity, and start focusing on telecom. Our technology infrastructure today is just as important as our electricity grid was two generations ago. When I learned that SVMG's 2005 workplan barely mentions telecommunications and broadband, I almost fell off my chair.

If *you* don't think telecom reform is urgent – neither will legislators.

At the PUC, we're going to be making some very tough, and very important, decisions in the next 12 months.

We have a proceeding underway to revamp the entire regulatory framework for telecom carriers. I am the Assigned Commissioner on that case, and *I intend to make this a blueprint for our future.*

We also have a broadband proceeding underway, where we'll be proposing a plan to make California the undisputed leader in broadband deployment and access. I don't think California should *ever* settle for 14th in the nation in terms of our broadband policies.

In our broadband plan, we will be proposing aggressive changes to some of the most significant barriers to broadband deployment, including:

- Modernizing the Right of Way process – creating a more standardized approach to permitting, and expediting dispute resolution.

- Streamlining CEQA requirements for things like stringing fiber and installing antennas for WiFi or WiMax, and cellular networks.

- Developing a regulatory framework for broadband over powerlines, so that uncertainty doesn't delay deployment of this new technology.

Finally, we will be proposing that California adopt a statewide broadband deployment plan, so that these changes have the full weight of the Legislature and the Governor behind them.

There is a lot to do this next year. We need your help. Silicon Valley has brought the world a wealth of innovation. We need your help now to bring imagination back to the regulatory process.

I look forward to working with all of you in the coming year.

Thank you.