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CITY BROADBAND PLANS:
ONE VISION, FOUR MARKETS, FOUR ISSUES

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It is a pleasure to be back with you.

My message today is simple: *every city needs its own broadband plan*.

When we did the national broadband plan we were about the 20th country to write one. Now, nearly 150 countries have.

A plan has become table stakes for countries wanting to participate of the 21st Century Information Economy.

With cities, we're where we were with countries in 2010. Several dozen have done them. They've been productive for those pioneers.

But now, such a plan is becoming table stakes for any city that want its residents to be part of the 21st Century Information Economy.

Today I will address three questions:

1. Why do cities need a broadband plan?;
2. Given today's market, how should different cities approach their planning effort?; and
3. What issues should such a plan address?

First, why do cities need a broadband plan?

The are three irrefutable truths that lead one to the inescapable conclusion.

First, the core mission of cities is to create and maintain the commons; something, generally a facility, shared by all, supported by all, that serves the common good.

In the first cities, nine millennium past, the commons was primarily a market and a wall. Later the commons included transportation facilities, amenities such as parks, and services, such as police to create the common good of public safety.

The requirements evolve. A century ago, cities started to see airports as an essential facility. More recently some cities have seen convention centers and sports facilities as essential parts of the commons.

The nature of the commons changes but the common thread is cities exist to create and maintain the commons.

Second, market forces alone never create and maintain the commons.

Yes, private capital and management has played a role in many of these developments. But these are always community-led projects.

Indeed, cities have many different views on the optimal mix of private and public capital necessary to deliver modern services of electricity, water and sewer, and communications and entertainment, but all agree that market forces alone will not create those needed public goods.

While some see our communications system as representing a triumph of free market forces, the telco, cable and wireless networks all required government actions to make the economics viable; access to rights of ways and poles, access to the programming created by others, construction permitting, access to spectrum, and many others.

Third, the most important new commons to develop in our era is the broadband ecosystem of networks, devices, applications and people who know how to use them.

Since the industrial revolution, the fundamental task of the economy has been the manipulation and distribution of physical material.

Now, increasingly, value creation is driven by knowledge exchange.

As the New York Times reported, "The story is the same in one field after another, in science, politics, crime prevention, public health, sports and industries as varied as energy and advertising. All are being transformed by data-driven discovery and decision-making."

That discovery and decision-making takes many different forms, but shares a common platform: that broadband ecosystem.

Broadband has become the commons of collaboration. It is the platform on which economic growth and social progress depend.

These three truths lead to an inescapable conclusion.

Plan beats no plan.

Second, given today's market, how should different cities approach their planning effort?

A country cannot pull one country's plan off the shelf, do an auto replace of one country's name with its own, and have a plan. Different countries start from different positions.

So it is with cities.

Planning should start from an analysis of where market forces themselves are heading.

In the United States over the last year, there have been dramatic developments.

Several years ago, the Wall Street Journal ran a story highlighting how some communities were running ahead of incumbent ISPs with plans for deploying gigabit networks.

The incumbents had two responses; first, no one wants a gig and second, it was so expensive to build, they would never do so.

In the last year, every major incumbent has announced plans to deliver a mass-market gigabit. The largest ISP, Comcast, has announced a plan to upgrade 100% of their footprint to be gig capable by 2018.

So are we done? Should we declare victory?

No.

Announcements are not deployments. If Google Fiber were to announce tomorrow it was ending new deployments, we would see a significant slow down in the actual gigabit deployments.

But the announcements suggest there are now four kinds of communities. Each has to address the challenge of assuring their communities have the bandwidth they need in a different manner.

The first set of communities is those that either have or are likely to see Google Fiber enter. For these, the starting strategy is pretty simple. Accelerate to the extent possible, Google's entry. Start by reviewing Joanne Hovis'/CTC's book "Gigabit Communities" and just do everything in it.

I can't guarantee Google will come. I can guarantee that doing those things will increase the odds of Google, or some other new competitor like Ting or C-Spire, will offer to deploy a next generation network.

I can also guarantee that if Google does come, the incumbent Telco and cable provider will do what they have done in 100% of such communities: accelerate their own gigabit efforts. Within a short time you will have three, offerings of affordable, abundant bandwidth. You will not be done, but you have set the stage for leading in the broadband-based economy.

The second set of communities are those that don't fit the Google algorithm but are large, dense communities. These would include New York, Chicago, Boston, Baltimore, San Francisco and Los Angeles. These communities may not be able to attract Google and the competitive responses that always follow. But they have the scale, the staff and the demographics to create an attractive next generation investment case.

New York, for example, has a creative plan to repurpose its pay phone network for gigabit hotspots. Los Angeles has a RFP pending that is attracting a large number of respondents. Boston has a Wi-Fi plan and is working on a fiber initiative.

Each initiative reflects using existing assets to improve the investment case for next generation facilities.

The third set of communities are those smaller communities that may not attract a Google or have the scale to attract what L.A. has done, they still can attract private capital to accelerate next generation deployments.

While half dozen Gig.u communities were able to attract Google Fiber—just yesterday Louisville, a Gig.U founding city, got tapped--another 20 were able to generate new deployments without Google.

I should note that when we started Gig.U, a leading Wall St. analyst said we were doomed to fail because "the math didn't work."

He was right. The math didn't work. Past tense. The Gig.U communities and local governments changed the math.

As a result, there are now models ranging from upgrading a small business district to an entire state.

One key lesson we discuss in the Handbook is working with others in your region to create the scale necessary to attract new investments.

Our Gig.U handbook describes those lessons and models that we believe all communities can benefit from understanding. Yesterday you honored Charles Benton. He helped inspire us to write the Handbook and we were honored to co-publish the Handbook with the Benton Foundation and dedicate it to Charles and his enormous legacy in our space.

We stated right at the start of Gig.U that the quintessential American journey, from Columbus to the moon landing, was not to follow a map but to make one. And so we did.

Nearly every community represented in this room can find an analogous community to a Gig.U community that succeeded in accelerating a next generation deployment.

Finally, there is a fourth set of communities that are largely rural. They will not have any gigabit network unless the government funds it.

Over the last decade and moving forward, our country has spent tens of billions of federal dollars on those locations. It is a complicated topic but one where I want to express my admiration to Chairman Wheeler and a great FCC staff, including Carol Mattey and Jonathan Chambers, for grappling with a difficult problem.

Third, what issues should a plan address?

But while each community has to start from an assessment of where they fit in the current market, it turns out, that each will then have to grapple with the same issues.

I have, for various reasons, looked at dozens of National Broadband Plans.

They are different as the counties are different but the vision is the same: ubiquitous, affordable, abundant bandwidth, with everyone on and using the platform to improve public services.

Achieving that vision boils involves four strategies:

1. Drive fiber deeper;
2. Use spectrum more efficiently;
3. Get everyone on; and
4. Create applications and re-imagine government processes to use the platform to improve the delivery of public goods and services.

That same vision and those four strategies apply to cities, but the tactics for achieving that vision are very different, both from the tactics countries use and between cities.

As to fiber, we have already talked about it.

Let me add two additional comments.

First, there are lots of trade-offs. As our Gig.U handbook discusses, communities have to understand the trade-offs between, for example risk v. control, scale v. quick decision making, ROI for private capital v. universal coverage, among others.

Each community should understand and make the trade-offs that best serve their residents.

Second, such efforts always bring talk of a digital divide.

Broadband adoption is a problem all cities share, but those pursuing gigabit upgrades have had added pressure to address it. A 2014 Wall Street Journal article surveyed how gigabit efforts cause some to complain about a new digital divide. These arguments are both factually and logically flawed, as can be seen in a report by Kansas City community leader Aaron Deacon, detailing how Google Fiber has narrowed the digital divide in Kansas City, or a piece I wrote in Wired. Still, any prospective gigabit city should seek to understand the nature of the local digital divide and create tailored, targeted solutions to roll out *alongside* the gigabit upgrade.

But on this subject, let me note a digital divide that no one has noticed.

Not a single article.

Yet, in Trumpian terms, it is a huge, enormous, tremendous digital divide.

It is the digital divide between Starkville, Mississippi and such cities as New York, Boston, Chicago, Washington DC and well-off suburbs, like Beverly Hills, Scarsdale and Bethesda, Maryland.

Starkville residents have not one but two options to purchase an affordable gigabit.

Think about it.

That is not one but two more options than all the residents of all those large cities and wealthy suburbs I mentioned.

Should this digital divide trouble us?

Other than my personal lack of a gig offeing, I find it amusing. And useful. Because it allows me to ask you each the following question, a variation of a question I have asked in countless communities around the country: how is that Starkville, Mississippi has two gigabit providers and you have none?

I am not saying that getting a gigabit provider is easy. But I am pretty sure that if Starkville, which is a lovely town, can figure out how to get two, so can you.

As to spectrum, that is largely a federal issue. But one thing many forget is fiber is spectrum policy. That is, the more fiber there is, the more robust the Wi-Fi, and the more cellular providers can off-load, improving the performance of all mobile services.

Further, many cities are now realizing that there certain places, like convention areas, parks, business areas, transportation hubs and others where cities seek for residents and visitors to gather and stay, that now require free Wi-Fi.

One of the most important issues on the horizon is the battle between Wi-Fi and a protocol being developed by cellular providers called LTE-U. In short, the cellular providers want to utilized the bands that are set aside for unlicensed uses—bands now dominated by Wi-Fi use—in ways that they believe will improve their cellular service. Heavy users of Wi-Fi, including Google and the Cable industry have expressed fears that LTE-U will degrade the performance of Wi-Fi.

There are many legal and engineering issues in this debate beyond the scope of this speech.

But every city that has done a plan has come to the reasonable conclusion that some free public Wi-Fi in some critical public areas is important for the city to thrive.

It is inevitable that every city will do so.

In that light, you have to be involved in this debate.

It is way too important to be a battle only between private interests over how unlicensed bands should be regulated.

Those bands have been, and must continue to be, a place where both private and public entities can experiment and offer different kinds of services.

For the policy result to reflect your needs, you need to play in that debate.

Chairman Wheeler said some smart things about this issue the other day at CTIA but it is far from over. In terms of issues right before the FCC at this moment, it may have the most direct impact on your city's ability to deliver the broadband commons you will need.

Third, we need everyone on.

Many cities recognize this; indeed the most effective groups doing broadband adoption work have always been locally based.

Your focus should be on empowering local efforts but I should also note the Lifeline proceeding currently pending at the FCC. Lifeline, a program that dates to the Reagan Administration, subsidizes low-income persons obtain baseline communications services.

The FCC is currently running a process asking how to update that program for the broadband era. Commissioner Clyburn in particular, has been providing great intellectual leadership for that effort.

It is critical the FCC upgrade the program to work in harmony with, and empower, local adoption efforts. But the FCC cannot do that unless you help them understand how to proceed.

The program is controversial, particularly with conservatives who raise questions about waste, fraud and abuse. These are not unimportant questions and the FCC is on track to address them.

But some questions strike me as the equivalent to discussing saving pennies when we should be discussing making dollars.

Consider that every private enterprise, from Wal-Mart to small Mom and Pop operations, is moving its operations from the analog, paper world to the digital, IP, data-driven world.

There are lots of up front costs but the reason for doing so is data-driven enterprises deliver better services and do so more inexpensively over time.

Government has to serve everyone so it will be the last enterprise forced to operate on both the analog and digital platform. That makes governments less effective than they could be and less efficient to the tune of hundreds of billions.

What if government could assume that everyone was on-line and that therefore all its services could have an online component and it could shut down the analog platform?

This brings us to the fourth strategy: creating applications and reimagining government processes to use the platform to improve the delivery of public goods and services.

Half the National Broadband Plan was devoted to broadband platform could improve education, health care, public safety, job training and other public goods. Many of these initiatives are locally based, though all have federal elements.

Let me give you an example: 911.

The current system is still mostly stuck in the in the 1950's, in a world of wire line phones in which information exchange is between two voices.

Why can't text, photos, videos and other helpful information be transmitted?

Further, as Chairman Wheeler correctly noted in comparing the current 911 system to Uber, ""If we can have an app that gets a car service to the right door, we certainly should be able to get 911 to the right door consistently and reliably."

I should disclose that while my Gig.U activities were pro bono, I have a financial interest in a start-up, RapidSoS— that answers the Chairman's call for more accurate location determination and enables all forms of data to be immediately transported.

My point in mentioning this is not to sell you on that service, as much as to note the problem is not technological. It is organizing governments to transition from structures that developed decades ago to one that takes advantage of new technologies.

This is not small problem. But moving to new technological platforms is one of the most important jobs of city officials in the next decade.

Which brings us back full circle to why every city needs a broadband plan.

Everything a city does ten years from now will be affected by the kind of networks and applications it has and utilizes.

And many things the city does today affect what it will have ten years from now.

So now is the time to plan.

Let me close with this. As a country, we don't think about the commons the way we used to. In the modern political environment, it sounds like something government does and we don't trust government to do anything well.

But if there is any audience that should understand the importance of the creation of the commons and how to do it, it should be you.

After all, every city is in the real estate business where the mantra is what sells is "location, location, location." That is, what sells is not just granite in a kitchen or marble in an entry. What makes one location superior to another is not an individual building, but the commons that all in that location share. You and your colleagues spend every day working with a broad spectrum of public and private interests creating a 21st Century commons.

The deepest roots of the United States lie with the Puritans, a group who saw themselves as undertaking an "errand into the wilderness" to build that "shining city on the hill." Later, others, like Lewis and Clark, would map that wilderness, enabling others to develop it.

In terms of the mission of world-leading broadband, the wilderness and mapping phases are now done. Unlike several years ago, where speaking of the need for world-leading broadband would have seemed like an errand in the wilderness, you now have many potential allies and a map for how to proceed.

The big opportunity for everyone in this room is to get your city to plan on how it will create the 21st Century commons, by assuring that everyone has access to that faster, better, cheaper bandwidth that will be the table stakes for where people want to live and work in the Gigabit era.