**Kansas Statewide Broadband Expansion Planning Task Force**
**January 11, 2019**
**Room 112-N, Statehouse**

Mr. Chairman, members of the task force,

Thank you for the opportunity to speak before you today regarding broadband access, utilization and economic growth in Kansas.

As this body is fully aware, advanced broadband networks intersect with nearly every aspect of American life. Once a novel academic platform, that turned into widespread email use and an interesting research tool, the world wide web now represents critical infrastructure we all rely upon to enable the most basic of commerce.

Just as it was in decades of old with telephone lines, electric lines and even our Interstate highway system, now it is so with the information superhighway that our state's economic success equally depends.

It is very encouraging to see that the Kansas legislature has been actively engaged to help develop lasting solutions to a range of issues related to advanced broadband network deployments, digital accessibility and utilization among our state. The rapid transition to a digital economy has led to an accelerated need to better define 'rules of the road' and clearer focus on how our state competes in what is now often referred to the 'Gig economy'.

In fact, it's instructive to recognize the forward-thinking nature of the legislature on this subject as illustrated in existing telecommunications policy I came across:

> **66-2001. Telecommunications**
> **Declaration of public policy. It is hereby declared to be the public policy of the state to:**
>
> A. Ensure that every Kansan will have access to a first-class telecommunications infrastructure that provides excellent services at an affordable price;
> B. Ensure that consumers throughout the state realize the benefits of competition through increased services and improved telecommunications facilities and infrastructure at reduced rates;
> C. Promote consumer access to a full range of telecommunications services, including advanced telecommunications services that are comparable in urban and rural areas throughout the state;
> D. Advance the development of a statewide telecommunications infrastructure that is capable of supporting applications, such as public safety, telemedicine, services for persons with special needs, distance learning, public library services, access to internet providers and others; and
> E. Protect consumers of telecommunications services from fraudulent business practices and practices that are inconsistent with the public interest, convenience and necessity.
> *History: L. 1996, ch. 268, § 1; July 1.*

Setting policy for any kind of technology can be a big challenge given its inherent rapid pace of change. But, just looking at the first point – *A…Ensure that every Kansan will have access to a first-class telecommunications infrastructure that provides excellent services at an affordable price*…that statement alone really says a lot about what we are trying to solve here...
Making sure all Kansans…
- urban, suburban or rural;
- big business, small business or at-home business;

…all of our communities must be able to harness the potential economic growth and quality of life made possible through first-class telecommunications infrastructure.

In many respects, Kansas is not particularly different than most other states when it comes to broadband infrastructure and economic development. We have metropolitan (high-density) population centers and we have some very rural (low-density) population – not centers, really, and we have everything in between.

We also have a wide range Internet Service Providers operating in our state. Some are household names across the country (AT&T, Cox, and our own Kansas-based Sprint to name a few). Some are household names across maybe only a few of our 105 counties (Pioneer and Eagle Communications, KRITC and SITA members, to name a few more).

And like most other states, we have a wide range of technology platforms – some state-of-the-art and some, not so much. Perhaps the biggest fundamental challenge we have is figuring out a way to augment the business case for rural advanced network deployments in a way that ensures services become, or remain, on par with what is commonplace in most of Johnson county or Wichita, for example. Like most other states, we even have challenges defining *where* the gaps are – Sedgewick and Shawnee county are excellent examples where, at first blush, they appear to be well-served communities. But in reality, as soon as you look only slightly beyond the immediate metro areas of Wichita and Topeka, access to quality broadband services can become as challenging as that anywhere in the many practically all-rural counties such as Meade county, where I recently visited.

Or maybe our biggest challenge is better put another way. Do we all still agree "*that every Kansan will have access to a first-class telecommunications infrastructure that provides excellent services at an affordable price*"?

I know that we do, we must. And I know that if I invested in and operated a network today delivering two-way 1,000Mbps to residences for $70/mo. for example, I'd argue that's what first-class telecommunications looks like.

But if I invested in and operated a network that delivered say, significantly lower capabilities for the same $70, well, I might not say it's state-of-art, but I would be tempted to make an argument that at least in some way it is first-class infrastructure --- actually, I would make the case that it's not necessarily first-class infrastructure, and then I would clearly articulate why the business case and existing funding (private and/or public sourced) are insufficient to accomplish the stated goal.

The point is not to cause anyone heartburn as to who has 'first-class' or not, no, the point is to recognize the challenges are real, especially in our rural communities, and give great appreciation that we have an impressive roster of service providers all across Kansas who are ready and willing to engage with the state to figure out a path forward. And it's why I am so encouraged to see our service provider community well represented on this task force.

The point is also to highlight the need for a sense of urgency. It's almost akin to an odorless gas that, if you don't have a detector, you don't realize the looming danger, economic danger. Robust critical infrastructure is what makes Kansas able to compete – locally, nationally and yes, **globally**. When it comes to our rural communities, in many respects, advance broadband networks represent what I call the great equalizer.

Economic growth and prosperity is hardly limited to Silicon Valley – nor should it be. So, while the latest top-of-mind advancements are impressive – let's call them gigabit fiber services and 5G wireless services to keep it simple for a moment. I'm mindful that within only the next 10-15 years, industry analyst expect ISP's will be delivering **50Gbps two-way** capabilities at the *household* level. I'm confident Kansas will benefit by these and other technology innovations and to the greatest extent possible we need ensure a process is in place to include those rural areas with the greatest challenges for economic growth.

So, from an economic development standpoint, we must continue to foster accelerated deployments of advanced networks – not so much because we need it today, but because we know that our state's future growth depends on statewide critical infrastructure capable of meeting the needs of our schools, hospitals and businesses. And don't forget public safety. FirstNet is a pretty good example of how industry and government are successfully partnering to ensure our first responders are prepared for future needs.

That's a bit of the high-level challenge that we face. I'd also like to take a few minutes to provide some perspective as to activities we have undertaken previously and those underway in a few other states now – as context for consideration in identifying some potential best practices.

First some background. As you may be aware, for five years, ending in 2015, each state worked to produce broadband availability maps based on actual service provider data sources. The maps were updated semi-annually, and we worked closely with our state GIS team and individual ISP's. It was a huge, first-of-its kind task which culminated in a comprehensive national broadband map.

The national and state maps gave significant insight and awareness of just how much of the country lacked constructive access to broadband services. And, despite all its merits, the map did have a few flaws, too. The most pervasive challenge was that under the methodology employed and agreed upon by all of the larger ISP's at the time, in some cases if so much as a single address had service available, the map showed a fairly large surrounding area as being fully served.

Interestingly, this map was actually an improvement over the FCC's maps which were based on what is fondly known as Form 477 data. Today's FCC Form 477 data was subsequently improved, but still, all the bugs have not been ironed out. Also, of note, despite those flaws at the time, over 95% of Kansas ISP's (large and small) participated in our data collection and mapping efforts.

While there were no updates to the Kansas broadband maps after our activities concluded when federal funding sources terminated in 2015, you will shortly here from Connected Nation, who Governor Colyer engaged to create a one-time refresh with the hope that it will provide this task force with additional insights as you deliberate and carry out your mission. Also of note, the Kansas Farm Bureau took a leadership role by challenging the FCC criteria for mobile infrastructure funding support that put rural areas at severe disadvantage. The Farm Bureau and Connected Nation both carried out detail wireless testing in some rural areas of our state to document the availability realities, and hopefully result in the FCC making changes that will help expand broadband services in our state.

Overall, the mapping activities conducted by each state under the federally funded program, in many cases led to some states maintaining and/or building up their broadband development offices. In other cases, as it was here in Kansas, some states lacked the resources to sustain the effort.

However, in the past year or so, as you are aware, there has been significant positive movement in Kansas and many of the other states that had slowed or eliminated a focused effort on broadband development. Here is a partial summary of state efforts and developments related to broadband infrastructure over the past year and a half:

- **Minnesota** $20 million
  - Maintained and expanded development office
  - Border-to-Border program to ensure rural communities fully covered
  - By 2022, all Minnesota businesses and homes have access to minimum of **25/3mbps**
  - By 2026, all Minnesota businesses and homes have access to at least one provider of broadband with **100/20mbps**
- **Tennessee** $45 million
  - Funded over 3 years, grants: $30 million, tax credits: $15 million
  - Less than **10/1Mbps** considered unserved
  - Reestablished and expanded broadband development office
- **Indiana** $100 million
  - Reestablished broadband development office
  - Next Level Connections program funds $100 million to bring affordable high-speed fiber optic broadband access to unserved and underserved areas

- ▪ ISP's eligible to apply, requires min. infrastructure capability of **100/10mbps**
  - o IDOT Broadband Corridors
    - ▪ Removes barriers preventing broadband ISP's from accessing right-of-way along interstates/limited access highways
  - o Broadband Readiness Pilot Planning Grants
    - ▪ Helps communities gain understanding of current broadband conditions/needs, create long-term vision of broadband in their community, and identify options for achieving it
    - ▪ Communities must meet all the normal CDBG program criteria, grant minimums of $50,000 available
- **Missouri** (amount pending upcoming legislative session
  - o Reestablished broadband development office
- **Alabama** $20 million
  - o Reestablished and expanded development office
- **Colorado** $100 million
  - o Reestablished and expanded development office
  - o Funded over 5 years
- **Wisconsin** $15 million
- **Maine** $11.8 million
  - o Maintained and expanded development office
  - o Infrastructure grants eligible for any area that receives no broadband service or service less than **25/3Mbps**
  - o Grant funded projects approved only for deployments capable of at least **10/10Mbps**
- **Washington** $25 million
- **Maryland** $100 million
- **Georgia** $100 million
- **Oregon** (amount pending upcoming legislative session)
  - o Reestablished broadband development office
- **Nebraska**
  - o Established Task Force in anticipation of reestablishing broadband development office
  - o Report to legislature Nov 2019

In most of the above cases, there are grants and grant/loan combinations which require some degree of matching by applicant. In a couple of cases, tax incentives are also part of the package.

Hopefully, the perspectives I've shared helps stimulate meaningful support as you kick off this important and challenging work. I look forward to continued collaboration with each of you as we work to benefit all Kansans along the information superhighway.

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