

A Broadband Vision for Minnesota Session II: Bringing our vision to life

First Question: What is your reaction to the draft Vision Statement?

All Minnesotans will conveniently and affordably use world-class broadband networks that enable us to survive and thrive in our homes and communities and to collaborate across the globe.

All Minnesotans will conveniently and affordably use world-class broadband networks that enable us to survive and thrive in our homes and communities.

All Minnesotans will use world class universal broadband networks that enable us to thrive in our communities and across the globe now and into the future.

- Still too long; less wordy than original
- to “survive and thrive” - to relay that it is critical, it is a utility, it is more than just economic development.
- it’s covering everything - all Minnesotans, will use, world class = the best (fiber). universal = ubiquitous. thrive covers a huge umbrella. i’m seeing that one sentence vision statement is on. i think it’s perfect.
- I appreciate the All Minnesota comment and the length of the statement
- “Use” implies may not be home/business/convenient access
- short and to the point
- Thrive means they are using it successfully--good statement
- “will use” is perhaps too active...will all Minnesotans actually use it?
- sounds a bit hokey...phrases don’t work together grammatically. All Minnesotans can access world class...? emphasize availability rather than use. “all Minnesotans have access to affordable world class broadband networks that enable them to thrive” incorporate affordability.
- Too broad. Sounds “pushy”. Like the old one better. “Will have access to” rather than “will use”. World class sounds unattainable. thrive needs to connote health, social,, economic...quality of life...

- much better
- Shorter but still too long. Bland and redundant with “world class universal.” The idea of “will use” implies everyone “will have” broadband connectivity. “Into the future” isn’t needed. Who owns this vision statement? Add that “all Minnesotans have affordable and equal access to the global network.”
- nebulous, specify fiber, remove word community, like across the globe and into future, thrive in our community and across the globe.
- change world class to robust, universal is a vague term
- Like the shorter version
- Miss “quality of life”
- Anything that helps bring partners together will be good
- Nice that it is shorter. Still a little confusing-maybe a little too general?
- What exactly is the vision? Is it assuming the network is already built and we are focusing on *use* now? Or is the focus on building the infrastructure?
- The word “use” takes it to the next level of what needs to be talked about next.
- doesn’t include action steps
- take out universal
- take out “that enable” and replace with enabling?
- take out “now and into the future”
- Better than first
- Need more aggressiveness; don’t wait for the funding
- Liked quality of life statement; make sure that equity is part of quality of life
- Like that it’s shorter
- “will use” is a funny statement. Wordsmith to make that more aggressive. Access still is a better phrase than “will use”

1. What do we need for networks?

- Fiber... plus wireless
 - Both kinds of networks: Human and Technical
 - Speed/bandwidth
 - Funding sources
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- Cooperation between all stakeholders
 - Fiber rings for reliability
 - Fiber #1 !!!; Bridging options may be needed in the interim

- Pure fiber backbones. Fiber backbone built as a public utility and open to any and all providers large and small.
- Fiber backbone in every community, but still need wireless
- open fiber in the ground. need to share what is already there
- Excellent wireless services - WiFi And cellular
- Gig capable
- be able to tie all networks together. we all have to be able to work together.
- redundancy
- Open, non-proprietary networks. Open to all providers and systems that will “talk” to each other.
- education and understanding of what the network can do for you
- social network and support from the network---sharing information
- public private networks, combine fiber, wireless, other technology, multiple solutions in city and rural areas, expandable to accommodate future technology use and availability,
- providers, more people involved from the community, we have enough networks but they need to work together. Huge \$ going to large providers need accountability to make sure underserved areas are served, not overbuild area with service.
- People – businesses, residents, legislators – everyone has to buy in.
- Especially the providers!
- People Networks- Community orgs., Govt., Businesses/Chambers, funders and conveners, opinion leaders, providers, educators - all levels, health care providers
- Educate public/officials about ROI with fiber - long term viability.
- Dark fiber where needed
- People need to have the devices or hardware to use the networks/routers
- Funding sources
- Larger capacity of WiFi?
- Unified idea of what exactly is needed
- Accurate information
- network meaning social and technology
- using cooperatives in their broadest sense not just ag, not just electric - think about areas of alignment to help move initiatives forward
- creating demand / create pressure for demand
- Disparities - need active participation/representation from people of varying of cultures and abilities
- Robust and diverse Advocacy networks to direct policy
- Strong financial networks

- Provider Delivery networks
- strong private / public networks
- supportive wireless and fiber providers of each other
- Speed/bandwidth
- Need competition
- To be able to reach everyone; we understand that areas have competition. Need to focus on less dense areas.
- Coops are a natural solution. (have a built-in regulatory structure.)
- Need those feasibility surveys to know where we need the work.
- Regulatory structure is very uneven. Telecom vs. cable vs

2. What tools do we need? (ex: state funding, legislative actions, policies, forums to promote/facilitate collaboration)

- High level adoption strategies that drive innovation
- Marketing broadband as a necessity not a luxury. Corporate Future Vision of connected society shared with policy makers. Local business impact of broadband.
- State financing programs made predictable and adequate. Guarantee loan programs. Supporting both public and private sector investment.
- Funding of programs that use innovative government, health or education tech-based innovation
- Setting reasonable pricing and approval process for rail line crossing
- to the list of examples: “YES”
- help “our generation” want to have it.
- does everyone understand what broadband is? if they did, would there be more awareness of the need.
- convince the people that there is a need for it.

All of the above. Regulation is a necessary evil. Local dark fiber networks built and provided as public utility infrastructure. Stronger lobbying effort to counter the large private service providers. Make fiber connection part of the state building code requirements.

- Big business buy in
- sustainability
- regulations need to be revised to promote sharing of the fibers
- National look at all of the entities to determine incentives and legislation that will streamline and

- Campaign finance laws so that the providers can't spend their money to buy congressmen and can reinvest in the system
- Laws that when roads are built or bridges they won't get state/fed funding unless they do that
- matching funds may be incentive
- net neutrality--grass roots campaigns for better legislation
- cash, fiber, towers, partnerships, feasibility studies, all entities contributing, competition, stories that small communities, townships can understand.
- investment in fiber that can be shared. shared maps. good state maps showing gaps, needs.... giving local boards authority and capability to make decisions.
- share fiber, too much dark fiber, make regulations similar too wheelage reg's with phone companies. state funding, fed funding focused on underserved. more fiber available for fixed wireless networks
- Money!
 - Perhaps revolving loans at 0% interest, versus grants - so that the money comes back and can be reused again
 - Easier permitting process
- Partnerships can be in a variety of ways
- There is value in convening and getting together - especially to start with a larger gathering to try and get all stakeholders in the room
- Prevailing wage laws are a big problem!!!! They are a huge detriment to making projects feasible.
 - And there is no prevailing wage for a person whose job is to lay cable - the comparables used are not appropriate
- All the above listed tools.
- Local coalitions being built - to build community will leading to political will.
- Need to create a unified goal - across govt. sectors/branches
- More state funding!
- Political Will
- Awareness low because the specifics of the technology are limited
- Business case & Quality of Life Case
- Tools: Yes all of the above, need more state resources including loans and grants
- Easing permitting, removing permitting fees
- Less restrictive policies regarding permits: the broadband should get you to the top of the list or an exemption from fees
- Open the USF in Minnesota added on to the Federal; CAF II will increase access but it won't necessarily be fiber.

- Need to continue to educate on the community level; some communities have it others do not: People need to know what kind of service is needed for the future and what it can do and what technologies can do what
- Community conversations to understand implications of not having fiber connections: education/higher ed, telemedicine.
- Money!
- Labor availability
- Product availability
- Environmental Studies
- All of the above.
- Learning curve for businesses/people- Training
- Funding for community organization and training
- Grants & Financing with Loans/Guarantees
- Partnerships
- Advising and Education
- Technical College Level add a “COMMUNITY DEVELOPER” program to add people to the pipeline that can fill workforce issues to help with comprehensive planning that includes the fiber.
- Working with communities to educate them, efficiently
- Have a central source of information people can refer to, to learn and educate themselves
- Have some models that people can actually see and refer to
- continuing to keep having stakeholder meetings like this conference
- need more success stories
- financing tools
- clearer sound bites - universal messaging
- people need to know and make connections office of broadband (in person, over the phone) - the office of broadband a one stop shop
- need more counties in our broadband networks
- making sure broadband is a priority for everyone/every county
- Backhoe, auger, etc.
- A good team to educate our elected officials on what broadband is; and that wifi doesn't necessarily solve the problem. (A vision for who?)
- Broadband is cheaper than water or a roadway, but why are we having trouble articulating that to officials (and the public) to support it?
- Strong support for all of the technical information (i.e. make sure that the Mn Broadband Office has the support to do all of the background work.)
- Planning vehicles. How do we create the plans to get out there.
- A good vision of what the future looks like.

- More funding for middle mile bandwidth.
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3. What do we need to do to incent the investment we need?

Bill:

- Better information from communities to providers about market
- Loan guarantee
- Google checklist
- Make county a clearly legislated power
- Make contributions from counties and other local units easier for fiber builds.
- there is a mind set in this state that people just dont want to work together on this topic for some reason. it's our business: stay out. we'll get to you when we get to you. they will come to the community meetings and make nice sounds but not actually collaborate
- its public infrastructure and it is going to take state and federal dollars.
- Incentive dependent on the entity you're looking to incent.
- We still need to educate businesses so they understand why they need it because they would be good allies in this effort
- dig once incentives
- share the fiber you have
- comparisons of success stories of specific businesses so they could see what they are missing
- Grants are always nice :)
- option - guarantee a sustainable return or break even. consider population trends.
- concern that revolving loans won't work..
- need statistics and generate feedback.
- community outreach and continued involvement to sell the network and keep it viable.
- communities need to engage in getting the take rate.
- start with wireless then expand to cable, utilize co-ops, non-profits.
- providers need ROI, they don't extend service because they don't want to, it because the ROI isn't there.
- involve kids
- Matching grants
- Please see answers to #2 above!
- Incentivize private funders by giving matching grants/loan guarantees

- One time state funding to show progress
- Ease permitting/regulations where it makes sense
- Look at long term needs - for upgrades/renovating networks
- More than investment - Investments...knowledge investment, adoption, etc.
- Investment
- More options; right now we have the grant program
- Loan program to be an incentive. Good pay back with low interest and with few strings attached
- Less restrictions on the grants that are awarded (existing grant program)
- Guaranteed loans with Govt. willing to stand behind it. on a state level
- Tax Credit for providers to push new fiber out. Give up some revenue to ensure the investment. Dollar for dollar? write off on taxes?
- Purchase of broadband as a tax credit?
- Governmental Support - loans/ guarantees/tax considerations
- Community outreach to help understand the need for the investment for referendums.
- Tax credits on a federal level
- Accelerated depreciation? Tax rebates?
- Guarantee Govt loans and low interest loans
- Laws changed regarding municipalities in the area of broadband/telephone
- Changes in the laws regarding referendum voting percentages or needs for referendum for the municipals to provide broadband services.
- Information to demonstrate the community return on investment.
- success stories
- aggregating users
- chicken and egg situations - find ways to aggregate demand first that could help move investments - clumps of demand
- BBC communities
- help leaders understand the importance
- planning planning planning - dig once, align with partners, understanding community needs (funding for planning - requirements for incorporation with comprehensive planning/capital improvement planning)
- understanding how telecom investment leverages other infrastructure investment
- infrastructures more connected to one another could spur incentive for investments
- establish some firm costs to work with - large uncertainty about costs
- a realistic understanding of the costs so communities can take appropriate next steps and informs how many partners a community may or may not need

- Helps leaders make sound investments with limited resources and plan for those investments
- reviewing ways that broadband infrastructure is paid for
- extend loan terms from traditional financing institutions
- state bonding as a tool to finance
- make examples of public private partnerships working on broadband (e.g. 6 ways)
- Revolving loan fund tools loan guarantee tools - wide variety of tools.
- leveraging dark fiber for economic development (examples like dakota county)
- lots of policies to finance telephones (big cost differences for different customers) - we haven't modernized the system of subsidies to shift to new technology
- Business cases
- Infrastructure bank
- Punitive things if you don't live up to your promises
- A commitment to support those who aren't able to afford it at market rates
- Broadband assistance like fuel assistance
- Mandates for the big telcoms and cable accounts; and penalties if they don't live up to it.

4. What key questions or principles should decision-makers keep in mind?

Bill:

- If it could be done privately, it would have been done by now.
- Example of electricity, its deployment and the applications that emerged needs to be used as an example.
- Economic development requires broadband.
- Broadband is essential to health, education and business.
- Global competitiveness
- Government involvement to spur competitive broadband services.
- Equal opportunity and equal access to government and educational resources.
- broadband is critical infrastructure - like a utility
- not allowing somebody to put off a broadband investment to protect a current business model - this is a huge problem
- what happened in Monticello is keeping a lot of cities from doing muni
- they need to know that fiber is necessary for wireless (don't want airplanes without airports)
- allowing investment from any party without fear of unfair business practices

- would be nice to see philanthropy actually building infrastructure - not just giving folks computers
- all Minnesotans need access to world class broadband and the skills to use it
- widening digital divide threatens our democracy
- Digital divide - have's have nots
- Worry about more than getting reelected.
- Work across party lines.
- Keep the opportunities front of mind.
- Much can be done via local ordinance.
- Shared network agreements.
- Don't be bought off by "Big providers"
- Think about our children and "everyone"
- Talk to some ten year olds
- Think toward the future. Aim for standards set for 5 years, rather 25-50 years
- accurate maps of gaps
- Are you on an electronic devices\vs
- Please, this can not continue to be a have/have nots issue
- Must be based on the quality of the internet connection not what the vendors say they are providing. They are not telling the truth.
- \$\$B include rural mN
- level the playing field between populous and less dense areas
- this is not a gift but rather an investment...helping the elderly, helping students, telecommuting. building social capital,
- prevailing wage issues....more flexibility needed...various costs of logistics, such as crossing tracks...permits, insurance, etc
- flexibility associated with regulation of cables, fiber, poles, etc
- dig once with bridges, roads, etc at ALL levels, towns, counties, states, city etc.
- BBis more than economic development, seems jobs is the only motivation.
- be inclusive
- education of people on the benefits of BB and the many uses
- not all communities are the same, even counties are different within their borders
- What's best for each county?
- There isn't enough money to do it all, so being fair when funds are awarded.
- What is the best "bang for your buck" for these dollars?
- Continue to focus on unserved areas, versus underserved.
- Continue to push REALISTIC broadband standards.
 - Realistic speed goals for the near-term, while looking at the future
 - But reviewing and adjusting it regularly
- Symmetrical service is important.

- If a project is funded, then fund all the way to the destination
- Who builds the core - gets to be as expensive as the access
- View internet as new “social contract” - essential utility
- Fair treatment across the state, regardless of density/providers etc.
- Question to legislators who say it isn't needed - Are you willing to give up your internet for a year?
- Would you think it wise to help limit traffic congestion thru telework vs. building more traffic lanes?
- Is public transit investments (i.e. light rail) more important than rural broadband investments?
- Everyone needs access
- Everyone Wins--not a zero sum game
- Affordability explicit
- Long term investments can be profitable, but often incumbents work on shorter term profit calculations
- Develop demand--
- Key questions/principles:
 - Is it going to expand fiber? New miles of fiber.....If i am a legislator, i want to know there is new lines out there. Is it fiber to the premise or fiber expansion to the node? Highways and driveways or just highways?
 - need to focus on the underserved; vial internet service in those areas
 - Serving unserved and underserved.
 - Competition that comes into an incumbent's areas; will kick start interest by the incumbent. but difficult for the new provider to decide to try it.
 - Joint Partnerships with the operator's in the industries with their existing resources. This provides much better understanding of what it takes to do the project.
 - Budgets - accurately budget products.
 - Prevailing Wage - affects the project costs
- Understanding of the costs
- Goals such as universal access etc isnt the same objective/goal as the corporate companies objectives.
- Serving unserved and underserved areas.
- Provide the underlying basis and grid of broadband to help grow our communities. We need the infrastructure.
- It is appropriate that government be involved in providing this infrastructure.
- Do development rules or building and development codes be required to have fiber ran as it requires that electricity, sewer etc.
- Universal access--questionable return on investment, especially in remote areas

- CAF II will not necessarily solve all the problems
- Local companies are going to be more interested/invested in solving issues within communities than big companies like Comcast
- Make sure there is expertise available, don't let communities try to do it by themselves
- Education/Work component-connecting the students at home is huge, as well as connecting employees at home
- look at broadband as essential infrastructure (not a luxury)
- we are needing and using more and more bandwidth - lot more data
- virtual reality 360 degree experiences will be the norm
- symmetrical service is key - critical!!!
- governments jobs is to protect competition not competitors
- how do we open up competition
- involvement of government does not need to be at the expense of the competitor or market
- Keeping in mind: why are other countries beating us in the broadband game? what will Minnesota look like in 10 years?
- high price on broadband is like a tax on innovation
- state and federal leaders encourage public private partnerships / cooperation and yet programs and funding requirements do not allow this to happen - partnerships and innovation need flexibility.
- Equity is key
- Know what's helpful and know when to get out of the way
- Data-driven decisions