Minnesota State Senator Matt Schmit

Broadband key to rural economic development and regional competitiveness

A Civic Caucus Focus on Competitiveness Interview

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Present

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Summary

Minnesota State Senator Matt Schmit believes broadband connectivity can promote economic development in rural Minnesota. Today, 500,000 Minnesotans, across 20 to 25 percent of the state, don't have access to state Internet speed goals, which are 10 Megabytes-per-second (Mbps) for downloads and five Mbps for uploads. This lack of high-speed access led Schmit to author the 2014 Border-to-Border Broadband Law, which creates a competitive matching grant program to expand broadband connectivity in rural Minnesota. The Legislature appropriated $20 million for the program, which will give priority to the hardest-to-reach areas.

Schmit says the state funds are intended to leverage an infusion of capital from the private sector. The state matching grant program, he says, begins to address the problem of lack of capital and could convince private or cooperative providers that some formerly questionable broadband projects are now feasible.

Connect Minnesota is collecting data to track levels of connectivity over time, which Schmit feels is important for accountability. He calls high-speed broadband Internet access "the rural electrification project of the 21 st century" and says the state must commit to expanding that access.

Biography

Minnesota Senator Matt Schmit, (DFL-Red Wing) represents Senate District 21, which includes portions of Dodge, Goodhue, Wabasha and Winona Counties.He was first elected in 2012 and serves on the following Senate committees: Jobs, Agriculture and Rural Development (vice-chair); Capital

Investment; Environment and Energy; and the Environment, Economic Development and Agriculture Division of the Finance Committee.

Schmit worked for the Minnesota Senate Education Finance Committee right out of college. He runs his own consulting firm, P3 Strategies (Public-Private Partnerships), and works in the areas of economic development, technology development and workforce needs.

He received his B.A. degree from St. John's University and his Master's in Public Policy (M.P.P.) from the University of Minnesota's Humphrey School of Public Affairs.

Discussion

Background Note: Following Minnesota Senator Matt Schmit's discussion with the Civic Caucus, the 2014 Legislature passed the Minnesota broadband initiative at the end of the session as part of the Senate's supplemental budget bill. The provision includes the establishment of a border-to-border broadband fund and the appropriation of $20 million for the fund. The money will be distributed as matching grants to local communities, businesses and organizations who are unserved or underserved by high-speed Internet connections and who wish to improve broadband infrastructure in their area. The fund will be administered by the Office of Broadband Development in the Department of Employment and Economic Development (DEED). More information about the fund's distribution and the grant application process will be available later this summer.

Broadband connectivity can promote economic development. Schmit said one of his campaign points when he ran for office in 2012 was the need for investment in 21st century infrastructure. He noted that the 2013 Legislature created the Office of Broadband Development in the Department of Employment and Economic Development (DEED), because there are pockets around the state where people are struggling to get connected to the Internet. He said the Legislature wants to use broadband as a means for economic development. He is the Senate author of the 2014 Border-to-Border Broadband Law, which creates a competitive grant program through the office to expand broadband connectivity in rural Minnesota.

The Legislature has set Internet speed goals for the state. Schmitnoted that in the last 10 years, there have been two governor's task forces on broadband in Minnesota. The task force created by Gov. Tim Pawlenty identified speed goals for the state: by 2015, every household in the state would have access to 10 megabytes-per-second (Mbps) download speed and five Mbps upload speed. Those goals were put into state law in 2009. Gov. Mark Dayton also appointed a broadband task force.

Schmit said Minnesota's goal is to be in the top five states in broadband deployment. Now Minnesota is in the middle of the pack, ranking 23rd in average broadband speed. He said the state will have trouble meeting the 10 Mbps download/five Mbps upload speeds by 2015 for about 25 percent of the population.

The federal definition of minimum broadband service is four Mbps download and one Mbps upload. Those speed goals are insufficient, Schmit said, for teleworking, student access to lectures and video streaming. And as the applications for broadband change, we'll need even greater bandwidth, he said.

An interviewer asked what difference it makes for the state to set goals, since private industry is going to be doing the job of expanding connectivity. "What gets measured gets done," Schmit replied. "Unless you set goals and measure them, you're not shooting for something. We wouldn't be where we are now without the great work of the private sector providers and the cooperatives in Minnesota."

People want action on better Internet access. Schmit said last fall and winter, he attended meetings around the state on broadband access with economic development officials, health care leaders and citizens. He said the following themes emerged:

1. It comes down to economics. There are parts of the state where there isn't the population density or the market to drive private-sector investment. Even though that service is coming, it's not coming fast enough to get us what Greater Minnesota needs.

2. Because of the changes in markets of providers from one area to the next and because of the individual needs of different communities, we can't have a one-size-fits-all approach to the problem. If the state's going to be involved at all, it has to be a facilitator, not putting forth one policy that would apply equally to every part of the state.

3. People are tired of talking about it; they want action. There have been lots of local conversations and many people have been talking about broadband for a long time. They want to do something about it.

The state is trying to leverage an infusion of capital from the private sector. "Maybe we'll invite new providers in, if there's not a provider that wants to expand that network," he said. "We want to give communities more say in their technology futures." Real estate agents have said people moving to a community still ask about the education system, but now, they ask just as often about Internet connectivity. The agents say that communities are competing over Internet access and it's essential to their competitiveness.

"Right now, communities don't have enough say in their technology futures," Schmit said. "We need more constructive dialog between individual communities, their hospitals and their schools and the Internet providers." One solution, he said, is the border-to-border broadband program the Legislature passed in the 2014 session.

It could cost anywhere from $900 million to $3 billion to meet the state speed goals by 2015. Those figures come from Gov. Mark Dayton's task force on broadband access. In January, the group said the state needs a $100-million fund to spur on new investments in broadband infrastructure.

"There's no way the state can do this itself," Schmit said. "The most we can do is have a state incentive program to spur on conversations at the local and regional level, to tap local and federal resources and to get private providers to realize that if they put more money into certain markets, the state can help them extend their return on investment (ROI) over a longer period of time. So, maybe instead of looking at a three-to-five-year ROI, they could be looking at seven to 10 years, which could make a project feasible."

The internet access system should be technology-neutral and should focus on the applications to be used and the end-user experience. "The last thing we want to do is invest any

public money in a system that will become obsolete," Schmit said. He called fiber "future-proof" and said some areas have had fiber in the ground for decades. "Once you have that fiber, you can change the electronic components to increase the bandwidth," he said. "If you put fiber-optic in, you can keep it there for decades. This is a long-term investment and fiber is not going to become obsolete."

A solid wireless connection could be an intermediate solution. Schmit said a wireless solution would cost less than a fiber-to-the-home solution. "We can't let the perfect become the enemy here," he said. "While many communities would like to have fiber to the home, a solid wireless connection may be an intermediate solution. Towers would be connected by fiber and people would get access wirelessly."

He said the problem with wireless is that the spectrum is limited as bandwidth goes up and the system gets more users. You hit a point of diminishing returns. You can put more towers out there, but every tower must be connected by fiber. Whether you use wireless or not, he said, you have to make the investments in fiber. "We're saying we want any investment we make to be scalable to 100 Mbps upload and download speed," he said. "We want a significant investment in fiber."

Fiber connectivity can provide phone, video content and data services. An interviewer asked how the discussion of broadband is different from that about cable TV 25 years ago. "We've seen a migration towards fiber," Schmit said. "It's a confluence where you can have phone service and access to television content over the Internet." He said a poll of industry would show that they're making investments in fiber to deliver a variety of services: phone, video content and data. "We're focusing our efforts and investments in that one area," he said. "I don't see any competing technology coming that's going to take us away from that."

Cooperatives are a big part of the solution. In response to a question, Schmit said there are a lot of cooperatives in rural Minnesota offering vital services, such as electricity. "One hundred years ago, we said we had to get electricity out to every house," he said. "People in rural Minnesota say Internet access is just as important."

He said the cooperative model can work well in installing fiber-optic cable. He noted that Paul Bunyan Communication is doing great work in northwestern Minnesota. "I think our cooperatives are a big part of the solution," he said. Just like the private providers, though, they need access to additional capital to improve their return on investment.

Broadband would provide benefits to public safety. An interviewer commented that the benefits of broadband to public safety are immense and are a good reason for the state to be involved. Schmit responded that the state invested a lot in 800- MHz radio in the past, which is providing great return on investment. But broadband would provide advantages, such as e-arraignments, rather than transporting prisoners long distances, and faster dispatch connections.

There are strong agricultural implications of broadband connectivity. Schmit noted that farm implements are expensive and high tech and can apply nutrients, water and chemicals to the nearest centimeter. High-speed Internet can help farmers to be more efficient and use less fertilizer. But, he said, that only works if farmers can collect data on the field and then access it back when they're out in the field. "You need to have connectivity for precision agriculture to work," he said. "Farmers are promoting this." Farmers can also use the Internet to buy or sell their commodities.

Existing Internet providers don't want state money to prop up competitors. An interviewer asked why certain Internet providers in rural areas are opposed to the state's investment in broadband access. Schmit replied that their biggest concern is competition. "Providers put a lot of investment in and don't want state money to prop up a competitor, whether public or private," he said. "My priority is not focused on competition. It's to get vital, high-speed access. It's expanding high-speed access and working with existing providers and co-ops."

Currently, 20 to 25 percent of the state, or 500,000 people, don't have access to state Internet speed goals, which are 10 Mbps for downloads and five Mbps for uploads. Schmit called those goals "rather meager." He referred to maps and charts of broadband access prepared by the Greater Minnesota Partnership , which show that most counties in the state have fewer than 50 percent of households connected at 25 Mbps download/six Mbps upload speeds.

"If we're going to reach our economic potential, we must be able to tap into the entrepreneurial spirit of all Minnesotans, not just those located in regional centers or in the metropolitan area," he said. All people throughout the state must have access to high-speed Internet that will allow them to use today's and tomorrow's applications, he argued.

The broadband matching program will give priority to the hardest-to-reach areas. An interviewer asked if we look ahead five years, will the initial funds will have gone to the most underserved areas first. The broadband provision that passed in 2014puts $20 million in a border-to-border broadband matching grant program. For every dollar the state puts into a project through a grant, there must be a public or private local match of at least a dollar. "My sense is the local match is going to be more like 10-to-one," he said. "I think we're going to have a lot of local investment based on a small state match. It's clear we're going to give particular priority to the hardest-to-reach areas, those that fall short of the FCC definition of broadband: four Mbps download and one Mbps upload."

He added that all state money would have to be utilized for connections that would be scalable to 100 Mbps. "This is built for the long haul," he said.

There is a great opportunity for "synergy" between investment in cell phone technology and broadband access. In some places, Schmit noted, both are vying for space on towers. He said these investments can overlap. If the state broadband fund results in investments in infrastructure that result in more fiber in the ground connecting end users and more fiber connecting towers for wireless access, that creates more opportunity for cellular providers to put their technology and their dishes up on the new towers, as well.

"We need more fiber in the ground and more fiber connecting towers," he said. "Cell phones provide a great opportunity to get to the Internet, but you need other kinds of connectivity to run a business or for students to watch the next day's lecture."

The most active co-ops are providing broadband access with fiber in northwestern Minnesota, in parts of southern Minnesota and along the North and South Dakota borders. In some counties, federal funds have funded broadband connectivity. "That layer of technology is so important," Schmit said. "It plays off our strength in human capital."

Connect Minnesota is collecting data to track levels of connectivity over time. An interviewer asked how in five years the state would be able to tell whether it has succeeded or failed in expanding broadband connectivity. Schmit said there is a federally funded mapping project going on right now called Connect Minnesota. Every year, the project is collecting proprietary data from private providers to show where connectivity is moving. "We'll be able to track where we are today, where we were three years ago and where we'll be three to five years down the road," he said.

N **o one is opposing the grant program, but there's some ongoing discussion over which communities would be eligible.** Some people want to focus on those areas defined as "unserved," i. e., those that fall short of the FCC minimum speeds. He said he's advocating that any area in Greater Minnesota that falls short of the *state* speed goals be eligible for funding. "I want to give communities and providers a way to invest in technology that makes economic sense," he said. He wants to give DEED the ability to fund good applications for funding. He said people are rallying around the $20-million funding for the program.

An interviewer asked why the amount of funding dropped down from $100 million. "It's competing interests," Schmit said. "It's a down payment. If we can demonstrate a lot of interest in this program, maybe we can ask for a full $100 million next year."

At least 12 states have matching broadband programs and other states are looking at establishing them. An interviewer asked if there is a state that's been adept at broadening their coverage. Schmit replied that California has two infrastructure funds in place and New York already has devoted $68 million to its fund. New York's program has brought broadband access to 153,000 individuals, 8,000 businesses and 400 anchor institutions, such as hospitals or schools. The state is moving up in the top 10 in average connection speed. "It's having a real impact on the state," he said. "So, other states are doing this. We would not be reinventing the wheel here."

Long-term prospects for federal funding are dim. An interviewer asked about the role of FCC funding. Schmit said the money is collected on people's phone bills and, in the past, was targeted to phone service. Now it can be used for Internet connectivity. The problem, he said, is that there's no guarantee these funds will be sufficient into the future. "You're seeing less and less of a commitment from the federal government to infuse new dollars into markets," he said. "It's not happening fast enough and the long-term prospects for getting more funding are very dim. We can't rely on the federal government to bail us out."

Recently, Schmit said, the FCC put out an inquiry to see how many rural communities across the country would be interested in creating broadband demonstration projects. At least 50 communities in Minnesota responded. "Communities are thinking about this," he said. 'They want to leverage new capital. They'll be just as interested in a state program. Communities are chomping at the bit for this sort of opportunity."

Regulation of Internet providers varies widely. An interviewer asked how the fee structure would be established for Minnesota and who would regulate it. Schmit responded that people can get Internet access from their phone company, their cable company or from new Internet service providers (ISPs). "Depending upon your provider, it's regulated in wildly different ways," he said. Phone companies are highly regulated, cable companies less so and ISP providers not at all. The

FCC needs to take that issue on seriously, he said. The state's Public Utility Commission wants to get into the issue, as well. He said Internet access should be treated more and more like a utility. It shouldn't necessarily be regulated in the same way, but there should be consumer safeguards, so people are getting what they pay for.

Connections for anchor institutions, like schools, libraries and health care have gotten much better, but are still not sufficient. An interviewer asked whether all schools in the state have fiber connectivity. Schmit replied that there are some funds in place for technology. "We have not had a comprehensive approach in Minnesota that has passed the Legislature," he said. "The connections for our anchor institutions, i.e., schools, libraries, health care, have gotten much better than our end-user connections. That's not to say they're sufficient."

Schmit said anchor institutions are very important and should have access above our state speed goals, preferably 25 Mbps to 100 Mbps. For end users, he said, access at home is so important to entrepreneurs, who might start or run their businesses from home. In education, students can take iPads home from school and listen to the lecture the night before. The next day, the teacher can see who understands the material and who needs help. He noted that only works if everybody can have Internet access off the school grounds.

Conclusion

"We're getting the state involved in a very important conversation that much of Minnesota has been having for a decade," Schmit concluded. "In the Legislature, we've had some great proposals in the past, but we haven't taken the necessary steps to do something: to promote partnerships, to meet meaningful speed goals and to become a leader in broadband infrastructure deployment and utilization. There's the access and there's what you do with it. Both of those discussions need to be promoted at the state level. There is no one-size-fits-all solution."

He said the state must recognize the great need in much of rural Minnesota. Broadband access has a fundamental connection to competitiveness. "This hits at the brain-drain issue, at rural economic competitiveness, at attracting young families to rural Minnesota, at the future of our state as a whole," Schmit said. "The Office of Broadband Development will do great work in giving communities more options. We're getting the state involved in the fundamental economic problem of lack of capital. This is the rural electrification of the 21st century. We have to make that commitment."