BROADBAND NECESSITY

Rural Indiana Struggles to Get Connected

invested over \$100 million in those upgrades.

"It had a major effect on what we do. We wouldn't be able to service cities and towns like Jasper. That did open it up to good competitive bidding, which is what the FCC (Federal Communications Commission) has wanted for quite some time," McCarty offers. "It was kind of like a blessing and a curse at the same time."

By Charlee Beason

"No service."

If you live in most parts of Indiana, it's rare to see that message when trying to access the Internet. But for a number of Hoosiers in rural areas, having reliable broadband access is no sure thing.

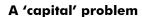
According to a recent report from the Digital Policy Institute (DPI) at Ball State University, over 12% of Hoosiers living in rural areas lack access to broadband. That compares to less than 2% without access in urban and suburban communities.

The *Indiana Rural Broadband Report 2015* highlights the fact that Indiana is considered an "overachiever, due to the presence of pre-existing optical fiber networks," a result of deregulating the telecommunications industry in 2006. Indiana was one of the first states to deregulate, which spurred investment in the state's fiber optic networks.

One author of the report, DPI Director Robert E. Yadon, Ph.D., notes the last estimate he saw for investment in telecommunications infrastructure in Indiana was over \$10 billion since 2006.

"For Indiana, that's wonderful," he states. "We far exceed our surrounding states in terms of fiber in the ground. That's backbone. To affect rural Indiana, somebody has to connect to that backbone. That's really the area that needs to be addressed, public-private partnerships to come together and promote moving that backbone connection closer to the rural communities."

Indiana's largest independent telecommunications firm is Smithville Communications, headquartered in Ellettesville. President and CEO Darby McCarty explains that the deregulation put pressure on companies to upgrade their networks in order to stay relevant. The company has



But if Indiana has such a great fiber optic network infrastructure, why do the rural areas struggle in gaining access?

It comes down to density. And trying to make something economical that is inherently just the opposite.

"In rural areas, you don't have density. That investment is a major challenge. The return on investment is a bigger challenge. There is less investment in rural America," offers Cullen McCarty, executive vice president of Smithville Communications. "We've reached a point where we're looking for new models. If you don't monetize the network, no one will invest. If there's no incentive to continually upgrade networks in rural areas, there's no value for somebody to come in and purchase that network."

Darby McCarty agrees, "There is no good business plan to build out into rural areas. There is a long time before you see a return. ... Since 1934, that's something we've always done: (the home) at the very last mile at the very end of the cable has had voice service. It's not getting any less expensive; that person still wants what the person has closer to the city. That's very understandable."

AT&T Indiana President Bill Soards acknowledges the challenges as well.

"Capital is certainly one issue. Deploying high-speed Internet infrastructure is expensive. It's a capital-intensive industry. AT&T has invested over \$1.75 billion in the last three years. That's in wired and wireless broadband," he states.



"There are a lot of places in Indiana where very robust broadband speeds are available, but not all consumers have seen the benefit or are not understanding the benefits – to their education, their health, economic sustainability – by getting connected to the Internet. That's something we need to continue to work on, to help

educate people to the benefits of broadband."

Bill Soards, AT&T

You can thank technology

New wireless technologies are going to make a big impact, Soards asserts. "I think you're going to see a lot more broadband being offered through other technologies in rural communities, including wireless," he says. "There will be a lot more options in rural Indiana in the coming months with wireless broadband. That's one of the things we're working on right now."

Yadon uses the phrase "technology agnostic" to explain what has to happen in the rural areas.

"If we look at broadband – there are different types. The type provided by the cable company, by the phone company, through wires, or fiber in some cases. There is fixed wireless as well, broadband wireless service that will provide reasonable speeds, but again there is no physical wired connection to the location. It's done over the air,"

ACCESS AVAILABILITY FOR HOOSIERS

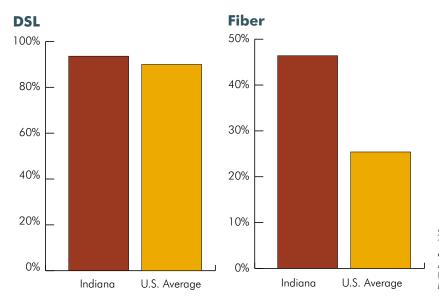
Wireline Broadband

86.8%

DOWNLOAD GREATER THAN 25 MEGABITS PER SECOND

72.0%GREATER THAN 100
MEGABITS PER SECOND

38.4%GIGABITE, ONE BILLION BITS PER SECOND, OR FASTER



Source: National Telecommunications and Information Administration, National Broadband Map, June 30, 2014

he comments. "There are a lot of elements.

"There's no single answer on the form of technology to be deployed."

Impact on economic development

"We are the greatest exporter of talent for other states," Yadon professes. "That's bad investment for us to continue doing that. One way of leveling the playing field is to provide broadband service."

He gives the example of a car dealer in a rural community that, without broadband access, would have to close and move to another town.

"He receives all his communication from the manufacturer via broadband. All those things are now done over the Internet. So, there's probably a lot of businesses like that — that need that communication or can't exist in rural Indiana," Yadon states. "If they can't exist or have to cut back, again, the quality of services (broadband) provides to them makes a difference. They can grow, but maintain the status quo of their location and the service they provide to the residents of their communities."

It's not just existing businesses that need to consider broadband access.

"It is infrastructure, like anything else," Cullen McCarty asserts. "That is important for economic development and any community that is going to advance itself or wants to advance itself. Broadband is a good start, not a panacea, but definitely an important tool to have."

Educating the public

Broadband is not only important for businesses and communities. It can directly impact the lives of Hoosiers as well.

"Access to high-speed Internet is critical

to daily life. I think a few years ago, Internet access was thought of as an amenity. Increasingly, we're learning that high-speed Internet access is critical to daily life. Whether it's access to distance learning for education or for telemedicine, or economic development or basic communications, increasingly our lives are becoming dependent on really fast broadband," Soards offers.

Educating "non-users" about these benefits has to be a part of the state's efforts moving forward.

Lieutenant Governor Sue Ellspermann convened and directed the Indiana Rural Broadband Working Group (RBWG) in 2014 after hearing from residents around the state about the lack of broadband in rural areas. Soards and Darby McCarty were among the participants.

One of the group's recommendations (all of the suggestions were also adopted in the DPI report) is to establish a Rural Broadband Center, which would be a neutral point of information, research and education.

"Communities can have all the desire in the world, but the technical and business acumen and the economic development resources they need a counselor on their side to help them get through this process," Yadon remarks.

"We have to empower these individuals and provide the necessary background education as to why broadband is important."

Soards agrees that broadband literacy is extremely important to the state's future.

"Adoption is a big issue for the state. There are a lot of places in Indiana where very robust broadband speeds are available, but not all consumers have seen the benefit or are not understanding the benefits — to their education, their health, economic sustainability — by

getting connected to the Internet. That's something we need to continue to work on, to help educate people to the benefits of broadband. It's critical," he stresses.

Washington impact

Much of what happens next will center on what's taking place in Washington. The FCC's decision earlier this year to reclassify broadband as a telecommunications service under Title II of the Communications Act (also referred to as net neutrality), and subsequent legal action by Internet service providers has introduced uncertainty, to say the least.

"Here's the downside of that, whether or not somebody likes the idea. This debate in Washington, now that it's gone again to the courts, it will be a three- to five-year state of uncertainty, where things are going to end up. It's going to dampen outside investment," Yadon describes.

Soards and Cullen McCarty also note the doubt is going to slow down progress.

"In terms of net neutrality, companies like AT&T have been supportive of open Internet policies for some time. People should assume they're not going to be redirected to other sites. There's been a large agreement on most aspects of net neutrality for years," Soards expresses. "What has just happened recently, the FCC on a 3-2 vote has decided to regulate the Internet. That's very concerning to providers, entrepreneurs — those of us who innovate on the Internet are fearful of the unintended consequences of beginning to regulate as a utility."

Cullen McCarty adds, "A lot of what happens in Indiana depends on what happens in Washington."

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Next steps

Lt. Gov. Ellspermann has taken up former Gov. Mitch Daniels' mantle on improving rural access, Yadon says. One of the goals in the RBWG's 2014 report was to reduce the underserved areas of Indiana to 50% of what they are now over the next three years, and by 10 years reach the point of all of Indiana having at least 10 megabits per second (Mbps) of broadband service.

"We need to continue the push, and every governor has a different agenda. It started under Mitch Daniels. This was part of his campaign platform. He was very pro-deregulation of the industry and moving technology further into the rural areas. Now, it's the lieutenant governor to have the push," he says.

"The great thing for us is we've set the stage (with the fiber networks) and so it's really up to us to complete the picture and continue the development."

Adds Darby McCarty, "The positive piece is that to my knowledge, none of us will stop putting fiber in the ground. We do realize its value. It's up to us to go to Washington and talk to anybody that will listen and even those that don't. Continually preach to them how valuable it is to have this type of service in rural America and rural Indiana."

Soards' advice is to appreciate and embrace the fact that the digital economy is not going anywhere.

"It behooves our state and our state leaders to embrace this and get in front of it quickly. Software and technology are quickly becoming more than a component of every industry of the state and the faster we embrace that, the better off the state will be in the long haul. I hope we continue to pay more attention to the digital economy," he concludes.

RESOURCES: Cullen and Darby McCarty, Smithville Communications, at www.smithville.com | Bill Soards, AT&T, at indiana.att.com | Robert Yadon, Digital Policy Institute, at www.digitalpolicyinstitute.org