

Crossing the Digital Divide (v46)

“If Only...”

By Joseph Feigon for the Observer

I've learned a bit about country living since my initial move to this community almost ten years ago. Simple lessons, really: buying the right size tool for the job, refilling propane tanks before it gets cold, and wrapping water pipes so they won't freeze when it gets below freezing.

I've also learned, despite huge sums of money set aside to enable “rural” communications, we are considered “third world” by most telecommunications carriers, and suffer from the lack of options one might expect where there's more than one option in a community. AT&T is based in Texas, and it common knowledge they have no motivation to support our aging analog copper infrastructure, also known as “the last mile”.

I've often expressed the obvious: “if there's a power pole feeding a parcel or group of homes, why not hang a wireless node and extend voice and data services?” AT&T has a few smart people on staff, the following article was written by Melissa Repko of the Dallas Morning News: <http://www.dallasnews.com/business/technology/2017/01/05/back-future-att-preparing-pilot-new-technology-uses-power-lines-high-speed-internet>

AT&T will soon test a new way to deliver high-speed internet that blends together new and old technology.

The Dallas-based telecom company will start field trials for an approach that could bring internet to anyone on the electric grid by using power lines. The technology uses low-cost plastic antennas and devices placed on power lines so that the existing infrastructure is a guide for broadband signals. The power lines don't carry the signal, and no electrical connection is needed.

The company has dubbed the effort Project AirGig.

By mid-2017, AT&T hopes to have the service running in a few test cities. It has not announced the locations, though company officials say they have heard from many cities that want to be a part of a trial.

The innovation could eliminate some of the challenges and costs of expanding high-speed internet access, said Roger Entner, a telecom analyst at Recon Analytics. AT&T would not have to dig trenches for fiber or seek permission to use a right of way, he said.

He called the approach a “fast and cheap and efficient way to get to customers.”

"Wherever there are power cables, this is a really competitive solution," he said.

AT&T is the second largest wireless carrier in the country with about 133 million wireless customers. Its fastest internet service, AT&T Fiber, is available in 46 metro areas, including Dallas-Fort Worth. AT&T plans to reach at least 67 metros with the service.

The technology used with Project AirGig could boost high-speed internet access in rural areas or low-income neighborhoods. And it could boost cities' broadband capacity as video streaming, virtual reality and self-driving cars increase demand.

"What's a gamechanger is everywhere there's power, I can now give really advanced wireless service," said John Donovan, AT&T's chief strategy officer and group president of technology and operations. "What used to be uneconomical is now economical."

Donovan said it could cut AT&T's setup costs by 30 to 70 percent, depending on deals with utility companies. He said it could also decrease its use of competing carriers' infrastructure for backhaul -- one piece of connectivity -- in certain states.

Donovan said ProjectAirGig could also have an upside for utility companies. It could alert them to potential problems, such as maintenance issues and tree branches on the lines. AT&T could also add new "smart" capabilities, such as new meters that monitor electricity use.

He described the project as the latest milestone in the company's long history of innovation. AT&T has more than 200 patents or patent applications related to the project, including plastic antennas and devices that are placed along the power line to pick up signals.

AT&T has already tested the Project AirGig technology, but the field trials will help the company figure out things that are difficult to simulate, such as how the technology works when it rains or snows and how long it takes to restore service when a driver hits a utility pole, Donovan said. It's also a way to estimate the cost of deployment and the right price for customers.

"You can do it [the testing] in a lab, and you can even do it outside at a lab, but the customers are the ones who are going to tell you whether it's fast enough and if it's the right price," he said.

Donovan said he can't predict when customers may see Project AirGig in their backyards, "but the minute it goes in the field, we are going to be watching it and planning deployment."