



## Rural Broadband Success Story

# Plainsnet.net – Hometown Entrepreneurs Find a Wireless Solution to Connect Their Rural Community

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### Introduction

Broadband (or high-speed) Internet access has become a dominant force in today's economy. Companies require broadband access to send and receive large data files, and individuals turn to high-speed access when they want to take online courses, buy and sell items online, or simply entertain themselves. However, rural areas across the nation typically lag behind their urban counterparts when it comes to obtaining the telecommunications infrastructure necessary for this type of access. This is primarily due to the costs of installing this infrastructure – the more densely populated urban areas make attractive targets for private phone and cable companies, who are able to recover their investments relatively quickly in these areas. Ironically, rural areas, which stand to gain the most from the distance-negating nature of the Internet, are often left without any type of broadband access. However, many rural communities across Oklahoma are taking matters into their own hands to obtain this infrastructure. In Holdenville, two frustrated entrepreneurs set up their own wireless network, bypassing the delayed roll-out of broadband by the local cable and phone companies and brought the magic of broadband Internet to several hundred households who previously had no access at all.

### Background Information

Holdenville is a small rural town in southeastern Oklahoma of around 5,500 residents. The dominant industries in the

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county are mining and retail trade, and the median household income is around \$20,000.

Rick and Gary Mask, CEO and CFO of Visual Lease Services, became interested in providing broadband access to their hometown of Holdenville in 2003. Discussions with the local telephone and cable companies indicated that broadband access was not on the immediate horizon for Holdenville. Determined to find another way, they researched several different types of wireless systems. They set up their first wireless tower in 2003, followed by several others in nearby rural communities who requested similar service (including the cities of Calvin and Cromwell, each with a population of around 300). The new company was called "Plainsnet" and accomplished the goal of bringing broadband access to Holdenville. Even after an unforeseen competitor entered the industry, Plainsnet continues to offer wireless broadband service to the residents of Holdenville, Calvin, Cromwell, and Pauls Valley - and has recently recouped its initial investment, turning cash flow positive. They have continually upgraded the equipment that resides on their towers, and pride themselves on providing exceptional customer service to go along with the various tiers of broadband connectivity they offer.



*The following information is taken from an interview with the President of Plainsnet.com (a subsidiary of Visual Lease Services):*

### Tell us a little about how Visual Lease became interested in broadband technology.

We became interested in providing broadband to Holdenville because there were no options to connect! We called the local phone and cable companies and asked when they were planning on making it available, and they indicated that it was going to be a while. They basically said that there were no plans to include our area in the near future, so we started researching different ways that we as entrepreneurs could provide that service to our community. Wireless access was easily our best option,

since we couldn't afford to lay our own cable. Although satellite technology was available through other businesses, we felt it was a little too pricey and not reliable enough. So, we looked into the different wireless systems available and set out to start up our own business.

**What kind of equipment does a household or business using your service need? How much do you charge per month?**

Anyone wanting to connect to our system requires an "access point," which is basically a radio transceiver we set up at your house or business. People can buy this equipment from us for a 1-time cost of \$600, or we can also lease it to them on a monthly basis. We have three tiers of broadband service: \$49 per month for 400 Kilobytes per second (Kbps - download speed), \$79 per month for 800 Kbps, or \$99 per month for 1 Mbps. These prices include the monthly equipment lease – if people choose to purchase the equipment then their monthly price is reduced by \$20.

**How did you determine where you would put your towers? Did you have an idea of how many subscribers you would get from various areas – if so, how?**

We knew where one would go immediately – right here on our office building in Holdenville, so that we could provide service to most of the city. We also placed equipment on a water tower in the town in order to reach some of the more outlying areas. Additionally, some residents of Calvin and Cromwell requested that we set up towers near them so that they could have service. We didn't have a great idea of the number of people that would subscribe from each area, but we thought that we could get at least 200 from Holdenville.

**How many towers do you currently have set up? How many customers?**

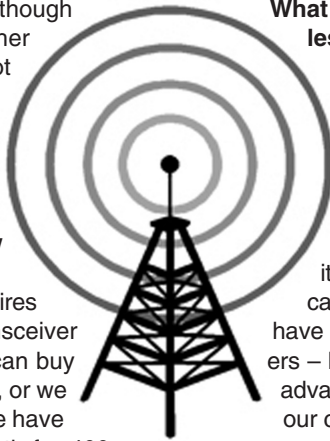
We currently have 5 towers – 2 in Holdenville, and 1 each in Calvin, Cromwell, and Pauls Valley. We have around 380 customers, most of whom are located in the Holdenville area.

**How did you estimate the amount of investment needed, and how did you obtain it?**

We talked to several vendors, and ended up going with Motorola – mostly because of stability issues. We put up around \$250,000 of our own money (via our company, Visual Lease Services) to purchase the initial equipment. We did go out and obtain financing to support our expansion after the initial investment, but that first big chunk of money came from us.

**How far along are you in terms of recouping that investment?**

We just turned cash positive this year, so it took us around 3 years to recoup our initial investment. This is by no means a get-rich-quick scheme – we were more concerned with addressing the needs of the local community. We saw a need for broadband access, and we took the steps to provide the necessary infrastructure for that to occur.



**What are the benefits that you see of having a wireless system? What are the drawbacks?**

The main benefits are in terms of the "last mile" of connectivity – the connection to the actual household or business. All that is required for a wireless broadband connection is that the transceiver is able to receive the signal from our towers. No cables need to be laid, which is pretty important for a lot of rural areas where it's just not economically feasible to lay additional cable. The only drawbacks that I see are that we have constantly upgraded the equipment on our towers – but, we have recently put into place some pretty advanced equipment that will hopefully address all of our customer needs for a while.

**Do most of the areas that you serve currently have DSL or cable Internet available to them? Did you take this into consideration when planning your system?**

Well, after the local phone company (Southwestern Bell) initially indicated that they were not planning on providing DSL access to Holdenville, they rolled it out about 3 months after we set up our first tower. So we had to start competing with them almost immediately. Although we didn't initially plan on a competitor entering the market, we quickly adapted and focused on providing great customer support, because we felt that was where our advantage lies.

**What was the hardest part of bringing the system to completion?**

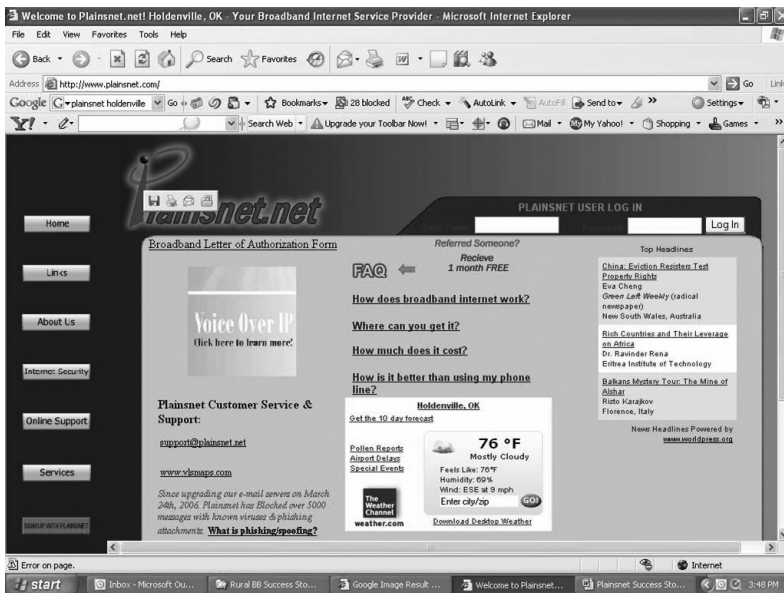
The hardest part is probably in retaining personnel. As I mentioned, we are big believers in customer support, so if that means we have to make multiple house calls each day to make sure the customer has everything set up correctly, that is what we'll do. For some people, this is not the most attractive part of the job, but it is a big part of our business. Additionally, there is not much technical support available to people like us, so we really have to stay on top of the most recent trends and make sure our equipment is up-to-date and is capable of adapting to our future needs.

**How do you market your services?**

We do a pretty good bit of advertising, including ads in the newspaper, flyers on vehicles in parking lots, giving incentives to current customers if they bring a new customer on board, and even door hangings in areas where our signal will reach. Word of mouth is probably our best advertisement, as people are very pleased with both the Internet connection and the level of service they get from us.

**Have you seen any impact from the system in terms of economic development? Are businesses more interested in locating in Holdenville now, or has there been an increase in the number of people moving into town?**

I can't really say that there have been new businesses moving to town, but we do know that some of our clients have developed their own websites, whether for their businesses or for their own personal use. I know we also have several people that are into eBay and have turned their broadband connection



into a way of making money. I don't know that people are now moving into Holdenville just because we have broadband, but on the other hand, no one is staying away because we don't.

Additionally, when we first started out, there were several individuals living in Holdenville who needed to have broadband in order to continue competing in their industry, including a lawyer, accountant, and an attorney. Their only other option would have been to install a T1 line (an individually laid cable capable of providing broadband access), which would have been very costly and perhaps driven them out of Holdenville. So, when we were able to offer broadband at a reasonable rate, it kept at least a few businesses here in town.

*This concludes the interview with Visual Lease Services.*

## Benefits of Broadband Access

Rural households, businesses, and community organizations can all benefit from the productive use of broadband access. Many people take educational classes online, earning diplomas ranging from GED equivalency to graduate degrees, while others use the Internet to create income opportunities. Sites like eBay ([www.eBay.com](http://www.eBay.com)) and Craigslist ([www.craigslist.com](http://www.craigslist.com)) have become common secondary (or even primary) sources of income for a number of Americans – in fact a study by AC Neilsen indicated that over 1.5 million Americans supplement their income each year by selling products over eBay.

Businesses typically use broadband access to transfer data, take advantage of online training courses, and develop a website presence – including selling their products online. Community organizations can also use broadband access. Most communities have their own website, which allows quicker interaction between the governing body and the residents, and also provides a place to tell the rest of the world about their hometown. Further, a recent study from MIT indicates that communities with broadband access experienced more rapid growth in employment and the number of businesses than those areas without access (Lehr, Osorio, Gillet, and Sirbu, 2006). Therefore, there is some evidence to suggest that the presence of broadband access is beneficial to a community.

Of course, there are also many opportunities for social interaction with broadband access, including participation on message boards, weblogs, and professional associations. The demand for broadband is also highly driven by the vast array of entertainment options available online, including entire movies, downloadable songs, and video gaming.

## Assistance Available for Communities Without Broadband

A number of resources are available to assist those rural areas without broadband in bringing some type of access into their community. The USDA rural development telecommunications program offers several grants and loans to communities and private firms interested in constructing broadband infrastructure in rural America. These programs include Community Connect grants, Distance Learning and Telemedicine Grants, Broadband loans, and Rural Utility Service loans. Additionally, Oklahoma State University Cooperative Extension Service has several programs that can benefit rural areas in this regard. Programming information consists of sessions on how to effectively use the Internet (including specific info on eBay and website development) and strategic planning processes that cover various options for obtaining broadband infrastructure. These strategic planning options include interacting with the local cable and phone company providers, forming a public-private partnership for sharing infrastructure costs, and even operating a municipally-owned broadband system. Other organizations, such as the Oklahoma Technology Council (OTC) and the Oklahoma Municipal League (OML), can also provide help to rural areas interested in this topic. Contact your county Extension director, or any of the rural development specialists or other interested parties listed in Table 1, for additional information.

**Table 1. List of Resources.**

Name	Contact	Phone	Website
OSU/OCES	County Extension Directors		
OSU/Rural Development	Brian Whitacre Stan Ralstin Jack Frye	405-744-9825 405-237-7677 580-332-4100	<a href="http://www.rd.okstate.edu">www.rd.okstate.edu</a>
OTC	Jim Mason	405-239-3669	<a href="http://www.oktechcouncil.com">www.oktechcouncil.com</a>
OML	Danny George	405-528-7515	<a href="http://www.oml.org">www.oml.org</a>

## **Additional Reading/Sources**

Fiber To The Home Council. (2006). *U.S. Optical Fiber Communities – 2006 with Customers Served Today via Fiber-to-the-Home*. [www.ftthcouncil.org](http://www.ftthcouncil.org)

Horrigan, J. (2006). *Home Broadband Adoption 2006*. The Pew Internet and American Life Project. <http://www.pewinternet.org>

Lehr, W., C. Osorio, S. Gillet, and M. Sirbu. (2006). *Measuring Broadband's Economic Impact*. Presented at 33<sup>rd</sup> Research Conference on Communication, Information, and Internet Policy.

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