Spanning the Digital Divide for Rural Counties

Jobs and a level playing field
in this Information Age

A preliminary report on broadband infrastructure
and its impact on economic development for rural counties.

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Executive Summary

One of the priorities of any community is jobs; keeping what we have and making them more viable while encouraging new businesses to form or move into the area. It is apparent that establishing a true broadband infrastructure and making it easily available has enabled communities smaller than ours to attract new businesses and expand the ones they have. Broadband provides better availability of educational and job-training resources with expanded facilities such as teleconferencing and remote education into our rural areas, towns and cities as well as individual farms and rural residences. High-speed access to Internet facilities can enable our existing businesses to compete and stay viable in the near future as well as longer term. The facilities to make this possible in any rural area are affordable with a quick return on investments; most needed resources are already available to handle the "last mile" of installation, including financing.

This paper is just a first step to any feasibility study in order to bring wireless to a rural community. There are many remaining steps before a business plan could be started, such as briefing the community while surveying for subscribers and equity partners, finance initial surveys and as well the final completion and execution of the installation planning.

Introduction

This study was started in order to understand the implications and ramifications of telecommunications impact on a typical rural county in the Midwest, particularly in regard to its economic development.

After due study and research, this paper has been produced to summarize these findings and make needed recommendations of the solutions to the situations we uncovered. In this paper, we will show how this affects us and why it is a concern to all planning of Economic Development for any rural county. This paper covers the economic studies already done by the State of Missouri which shows how Information Technology (IT) jobs and businesses can be brought into the area or created locally. It compares the current economic scene of rural areas to a comparative historical scene where the railroads and interstate highways made or broke existing towns by their presence or absence. Further, the technical reason that this occurs will be shown. Communities who have managed on their own to span this gap and produce IT jobs for themselves will be reviewed. A comparison of the various technologies to bring IT jobs and a higher quality of life to this county will be shown, with the conclusion of which specific technology we should invest in. The specific benefits of this particular technology will be discussed, as well as the basic business planning to carry it off. Finally, our recommendations will be presented for implementation.

The Digital Divide

We are faced both knowingly and unknowingly with a Digital Divide - separator of metropolitan and rural areas in these information-intensive times. Larry Irving, Administrator of the National Telecommunications and Information Administration (NTIA), defined this term:

> *"The "digital divide" - the divide between those with access to new technologies and those without - ... is actually widening over time.*
>
> *"Regardless of income level, Americans living in rural areas are lagging behind in Internet access."* (Irving).

Metropolitan areas have access to high-speed telecommunications, especially Internet access, which gives them a decided advantage over rural areas. Economically, larger cities are able to take advantage of this access to gain economically. While we have a better quality of life and a less costly one, free from the major crimes and other metropolitan ills, one may consider that lack of high-speed information access is just another price to pay for these luxuries of rural living we nearly take for granted.

Mr. Irving did extensive studies of census records to arrive at his conclusions. These studies are available at <http://www.ntia.doc.gov/>

Let's look closer at the example of Missouri.

How the Digital Divide Affects Us

> *"Mark Twain once said that a Mississippi riverboat pilot had to "learn more than any one man ought to be allowed to know" and that he must "learn it all over again in a different way every 24 hours." His words seem appropriate to the Missouri of today, with an economy increasingly driven by new information and the ever more sophisticated technologies that carry it. Missouri may not understand the course of the river that takes us into the future, but it needs to be on the boat."*
>
> David J. Peters
> Missouri Department of Economic Development

Mr. Peters summed up the common denominators to economic development by IT jobs in a series of reports on the impact of IT jobs and technologies; these are available on the State web site, <http://www.ecodev.state.mo.us.>

He pointed out that there were basically three factors common to Information Technology Employment in rural areas:

1) A strong university or government presence,
2) An area of natural beauty or beautiful landscapes,
3) An investment in broadband Internet infrastructure.

(Broadband, for our definitions at this point, is high-speed data communications, approximately ten times faster than a dial-up connection to the Internet from a home computer.)

Mr. Peters pointed out in his reports that IT firms tend to locate to areas with high natural amenities and high quality of life; they are not geographically bound and can locate virtually anywhere. These firms tend to locate where broadband already exists and available so that they can share resources and not require a heavy investment into building infrastructure.

Mr. Peters calculated that 100 IT jobs in Missouri would produce over $5 million in wages, with an average wage of over $50,000. As well another 190 ancillary jobs would be required, with another $4.8 million in wages produced (Peters).

It can be seen that any county with a community college, has two of the three factors. Our remaining missing factor is the establishment of broadband Internet Infrastructure.

Broadband as a Railroad

> *"We are seeing a comparable rural demand today for access to the broadband digital networks of the 21st Century for the very same reason. Rural communities not connected to our emerging broadband network will suffer the same economic fate as many communities that were bypassed by the telephone network, the railroad or the Interstate highway system. The railroads and Interstates couldn't be everywhere and so rural winners and losers were created."*
>
> Edwin B. Parker, Parker Communications

This is an apt comparison. Let's look at the scene in the 1800's, where this Midwest of ours was being settled:

- Cities had advanced technologies
- Cities lacked raw resources of the rural areas.
- Resources could not be shared easily.
- Communication was poor.
- Transport of goods and services was slow.

As the railroads brought more settlers out they produced changes in the rural areas:

- They brought effective and economical transportation.
- Goods and services were able to be exchanged cheaply.
- America could communicate effectively over longer distances.
- These enabled a higher quality of life for rural areas.

Later, the interstate highway system continued in this line, adding to the changes started by the railways. Commerce started flowing up and down the Interstates as primary routes to cheaply transport and exchange commodities.

But does this statement of "winners and losers were created" hold water for the typical county? Let's look at Audrain County in Missouri. The following towns and cities were present on a map in 1908; you can see the results of the railroad and interstate highway system since then:

- Mexico is a large town, it has two railways through it and also an interstate, I-54.
- Vandalia, somewhat smaller, has both a railway and this interstate.
- Benton City, much smaller, has only one railway through it.
- Skinner was served by neither rail nor interstate; while present on a map in 1908, it exists today only as a single sign by a back road.

This is all well and good, but how does this relate to Information Technology jobs? Can't we just continue to compete with our local industries and through shipping our raw materials to the metro areas with the railroads and interstates we already have?

The situation is this: we live in a global economy, which is increasingly information intensive. If we do not achieve high speed information flow to our businesses locally, we will be left behind very shortly, in the similar manner as those small towns who weren't even whistle-stops. Let's look at a present-day example of two companies who did and didn't take advantage of modern-day technologies.

Modern-day example of Economic Expansion

Wal-Mart in 2002 achieved the position of the having the largest sales internationally, according to Fortune magazine (Murphy). They have a sophisticated broadband and computer network to track sales and distribution. They started computerizing in 1966.

K-Mart, founded decades earlier, declared bankruptcy early in 2002 and has lost over $750 million since. They started computerizing their systems only a few years ago (1982) (Ortega, 284).

This certainly isn't attributable completely to simply having computers and satellites. There is also a driven managerial intent to use this technology to increase efficiency. Federal Reserve Chairman Alan Greenspan recently commented about this factor that Wal-Mart utilized, which K-Mart didn't:

> "*Today, businesses have large quantities of data available virtually in real time. As a consequence, they address and resolve economic imbalances more rapidly than in the past*" (Dickerson).

As any business or corporation invests in information technology and gets it effectively utilized, this increase of knowledge can reduce indecision and enable focus on new forms of profitable activity. Mr. Greenspan continued in this light:

> "*Information technologies, by improving our real-time understanding of production processes and of the vagaries of consumer demand, are reducing the degree of uncertainty and, hence, risk*" (Ibid.).

Any rural county can take control of its own economic future by bringing a "Broadband Railway" to town, which will enable utilization of real-time information, possibly even achieving independence of national and international trends. Any business who is utilizing e-commerce or has a website is actually engaging in international commerce and marketing, since its web site can be accessed by any executive or individual anywhere with a web browser.

Broadband-enabled Communities

Many communities smaller than us have successfully implemented a Broadband Railway to get high-speed information access for its citizens. Here are some examples:

Linton N.D., population 1,410. A travel agency decided to move most of its data base operation to this town from a big city. Reason? Linden had an up-to-date telecommunications infrastructure. The move worked so well that the Linden office now employs more than 200 people. (Patrico)

Aurora, Neb., population 3,800. A pet food manufacturer expanded its labor force from 20 to 125 because of the high-capacity telephones service offered by locally owned phone company. (Ibid.)

Maryville, ND, population - less than 2000. A web services firm started by two local professors and a student in 1995 now employs over 19 and has a ½ million dollar annual payroll, utilizing local students as interns and hiring many after they graduate. Students are highly technically trained at the local university and this is considered a resource. Last report has a defense contractor wanting to locate part of his business there, an increase of 70 jobs. This due to the community getting IT training going at the university as well as for the residents and installing a broadband base to back it up (NTIA).

The North Dakota extension service is able to use the video conferencing abilities of broadband to enable its agents to share knowledge and to more efficiently service their farmers. A microscopic slide of a disease-ridden canola leaf can be sent to a central university hundreds of miles away, enabling a diagnosis that can get immediate response. The farmer can then get the necessary advice in minutes instead of days and implement the solution without having to wait for samples to travel those hundred miles and the solution called back. The broadband video network enables use of the four Ph.D. level specialists in the state to share their time more effectively and consult on a broader scale than driving all over the state to affected farms. This same broadband network is used to hold seminars where farmers are trained in the latest marketing theory and practices so that they can compete and diversify, as well as enter into value-added aspects. This broadband network was partially financed by a grant from US Dept. of Commerce, Technology Opportunities Program (TOP). (Ibid.)

Sidney, Illinois, population 1,062. A farmer was fed up with the inability to get access to most of the benefits of the Internet while he paid by the minute for slow access over phone lines. Contacting two other men who had built towers, they invested $5 million and expect a positive cash flow within two years of starting. Because of the proven business model, they attracted equity investments totaling $50 million and plans to hire 90 more employees to cope with the expansion. They use wireless technology, mounted on grain elevators and building towers when they need to. Demonstrations of these technologies to students use a wireless laptop that contacts an Internet radio station (Crowfoot).

Morrisberg, ONT, Canada, population 2,538: A local business man tired of the expense and inefficiency of having to run his 5 businesses separately due to the 100 miles of area he covered. He joined them into one with a wireless network mounted on local water towers. As a result of his success, two local cities have asked him to help them expand their systems and so attract IT jobs from nearby Ottawa (Careless).

18 rural reservations near San Diego: Due to the success of broadband in one small area, the tribal council decided to invest in broadband. It cost them in the $10,000 range as a fixed, one time cost. Expanding the system was cheap, costing as low as $100 each for the

receivers, giving the connectivity of a T-1 line. Because of the success of this broadband network in one area, the community received a three-year, $5 million dollar grant to expand its educational capabilities and also expand the network to the service the rest of the 18 reservations. Trying to install normal cable runs over this broad terrain would have cost millions (Twist).

Agricultural application: Shawn Woolen of Wilcox, Nebraska has upgraded to wireless and gets near instantaneous Internet connections. He's been able to cut out the expense of a second phone line and ISP and has been able to cut long distance charges since he makes many calls via the Internet. He can check weather, markets, analysis and ag news from his tractor. He also makes phone calls via his portable laptop from there. The capability of this system is such that it supports live video feeds for security, checking calving or remote teleconferencing, potentially saving hours of lost time in travel (Toner).

Building a Broadband Railroad

To improve a rural county infrastructure, we have to look at what types of broadband exist and determine the most cost-effective version.

There are majorly three types of available broadband access:

1. *DSL* - good for 37000 feet (about 2 ½ miles) from the main office. You can do this with repeaters, but they must again be installed within 2 ½ miles of each other and the main office. These can apparently run over normal phone lines. The monthly cost is around $50 with a start up equipment cost of $100. This will give you varying speeds, starting out at about 256K speed for residential and small businesses.

2. *Satellite.* This is pretty practical for private use, although it does have some installation costs and latency in operation. Prices have come down a bit with competition; they have become more efficient. These have a monthly fee of about $70 per month and as well equipment costs of $500. This gives about 400K in data speed.

3. *Wireless broadband.* Simple to install as it requires no trenching or cable runs; rates can be as low as a regular ISP at about $40 per mo. As well, this entitles other wireless networks to operate, such a laptops and PDA's, which enable additional services to run from rural areas. The other two above can only connect direct to a PC and you would have to install a local wireless antenna to make a wireless local area network operate. The provider provides the equipment at his cost. Speed can be upgraded, but the base residential user starts at 128K.

These compare to average dial-up, which costs about $20 per month and gets about 20K of speed in our rural areas, due to the quality of the phone lines.

One drawback to expanding the DSL lines is that trenching in new lines costs between $10,000 and $15,000 per mile to upgrade (National Governor's Association). With customers literally miles apart, it would take years to pay off this investment. It is this simple reason alone that indicates how rural areas are poorly served by high-speed data lines.

Wireless, on the other hand, can service an average area of about seven miles from an antenna tower, for an initial cost of about $10,000. This one antenna can service up to about 200 customers. These antennas can also be installed on existing landmarks, such as water towers and grain elevators. Above, you can see many successful examples of how this has already been accomplished in smaller towns and counties than ours.

Our conclusion is that, where available, DSL would be best to use. But for outlying rural areas, wireless installations would enable more access for less cost. Additionally, there are benefits to wireless that may include its use in addition to the availability of DSL.

Effectiveness and Benefits of a Broadband Railway

There are many benefits of getting such a "Broadband Railway".

- More IT businesses can locate here for the better quality of life; they need no metro location.
- Existing businesses can expand due to the greater efficiency afforded from IT investment.
- Wages can average higher with better return from locally IT-trained staff who are more efficient.
- Unemployed can re-train simply to be more utilizable in IT-related work.

As well, existing businesses can become more efficient:

- Ag businesses and farmers can achieve better, faster communication
- Existing businesses can transfer files, look up information and conduct meetings online.
- Smaller businesses can compete effectively against larger multinational corporations — making a level playing field.

Building a Wireless Broadband Railway brings with it other benefits which are peculiar to wireless networking:

- Roaming connection so anyone can get on anywhere: farm, town, city.
- Remote security by installing cameras that can send data via antenna.
- Video conferencing for education or business for any subscribers.
- Virtual Private Networks for businesses, which keeps security in.
- Telecommuting to save commuting costs and expense.

An additional benefit is something called "Hot Spots", where a visiting executive can take his laptop with a wireless antenna to the lobby of his hotel and connect to his company server to download data, answer his email, work on a copy of his presentation, or change his itinerary and flight reservations — all without having to dial up to a long distance provider and pay exorbitant fees for the long download times. Our rural motels and even bed-and-breakfasts could have the latest technology and marketing values that only larger metropolitan areas currently can afford.

Local agriculture would benefit by the improved efficiency of access to broadband. Today's farms and agri-business face global competition, but as well are able to market and sell globally with effective Internet access and utilization. Diversified crops, access to new markets and value-added products are the tip of the iceberg when you connect e-commerce with agriculture. The state of Tennessee has found that e-commerce has grown so much the legislature is working out how to recover as much as $400 million in lost taxes from this area (McLarty).

Simple, Effective Business Model

A wireless system can be set up for as little as $10,000. It will support up to 120 subscribers. With 50 subscribers, it is profitable. At 75, there can be complete return of investment (ROI) in one year. At 1,000 subscribers is about $600,000 in income annually. This requires about a $25,000 investment. Approximately 60 - 75 percent of the income is utilized

in overhead, leaving 25 - 40 percent profit for reinvesting, paying dividends or lowering costs to subscribers once the initial establishment is paid off.

Small wireless systems have been found to outlast larger, venture capital funded ventures, as they start by procuring subscribers as opposed to building out a large infrastructure and then finding customers to pay for it (Charmy).

A proposed manner of expansion is combining two successful forms of organization, the Co-op and the corporation.

A Co-op is formed of interested equity partners, who each are interested in starting up something in their area and are willing to invest in this to do so. For the day-to-day operation, a corporation is formed for that local area to take care of sales, delivery and service. Forming a separate corporation protects the Co-op from any service problems or business errors.

As each community comes on line, they are enabled with their own local corporation. So monies stay local.

Any isolated farmer or rural resident might become an equity partner of the co-op in order to get service while his area builds up with additional subscribers.

This is based on the example of a successful Wireless Internet Service Provider, Axtelltech (http://www.axtelltech.com), which has been in the wireless industry for several years and currently serves over 160 communities in 6 states. It was started as an LLC by two farmers and an experienced ISP manager in order to solve the problem of expensive and slow local Internet access. (There are many more small wireless providers in Missouri. One list of these can be found at Appendix A.)

We have then a proven business plan and a working example.

The first service that would be established is simple Internet access, which would pay for the establishment of the wireless network. There are many additional services that can be layered in on top of such a wireless network once it is established. These would each generate their own additional income. Some of these services are outlined above; others such as wireless telephony, teleconferencing, even entertainment services such as video rentals are beyond the scope of this simple study.

Governmental financing has been there for some time, particularly since we qualify as a rural area. Most recently, in 2001, Public Bill 107-76 was signed into law by the President, setting aside $80 million in guaranteed loans for rural telecommunications development. The Rural Utilities Service reaffirmed this in the 2002 budget. The 2001 Farm Bill had $100,000 proposed for expanding rural telecommunications. The National Telecommunications and Information Administration is a source for grants, as is the National Science Foundation. Private grants are available, such as the Hewlett-Packard Foundation.

The examples above also showed how even private funding was returned quickly off broadband investment efforts, particularly in wireless broadband installations.

Barriers to Implementation

A primary barrier to the expansion of Internet broadband is that people don’t know what they don’t know. People who have had the advantage of working with broadband Internet access, such as taking classes at any local college, know what is available and what can be done

with these tools. People who have slow Internet access hardly use it and don't recognize its full value. A study in Iowa pointed this out (Geisker, Bultena, Korsching). While people surveyed felt themselves somewhat informed about the Internet, they felt that telecommunications was an asset, but chiefly thought of the telephone company as chiefly delivering voice transmissions. As far as economic development, they placed it near last in importance. This would have to be a point of any proposed solution: education and familiarization of the users with the benefits. As well, the education would need be continuing function, since not only has the technology been changing and people will require updating their knowledge and skills, but more people will find that they have heard about these technologies and find discover them now necessary in their lives, so they will come for training.

Summary

If an area doesn't get broadband easily available, they face being left behind economically. With broadband, they can take control over our own economic scene.

Wireless is the cheapest and simplest broadband to implement and is readily expandable. It is built on a successful business model.

Any rural area with its natural beauty and a university presence at the local community college are draws to these businesses. All that is lacking is the broadband infrastructure.

The vital need for this has been determined, along with the relatively low expense of implementing it and resultant quick ROI.

In financing, the relative low cost of bringing wireless to remote areas of the county makes a sound business model for getting loans to expand existing systems. Low costs government loans are available, as well, grants are also possible for this expansion.

As the world moves into the Information Age and its efficiencies, each rural county has to ask itself whether it wants to get help build a broadband railway into its area or watch it roll away. One will carry that county into new efficiencies, with a larger base and better quality of life for its inhabitants. Letting it go will simply mean continuing to struggle with an outmoded agricultural and industrial model, losing jobs and population to metro areas or other counties that have made the shift.

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Additional Resources

Broadband Properites Magazine. <http://privatebroadband.com/currentmagazine.html>. A publication for broadband Internet service providers and real estate owners. Free subscription.

Broadband Week Magazine. <http://www.broadbandweek.com/wireless.htm>. Free subscription to published magazine as well as a directory of broadband websites and other resources.

Broadband Wireless Exhange Magazine. <http://www.bbwexchange.com/>. Its purpose is to "provide a complete online repository of information for people who are interested in learning more about the Broadband Wireless industry."

Broadband Wireless Internet Forum. <http://www.bwif.org/>. Facilitates cost-effective, broadband wireless access solutions.

Brroadband Wireless Magazine <http://www.shorecliffcommunications.com/magazine/index.asp>. This is an online version of a free magazine for the Wireless Broadband Industry. They have links to upcoming conventions.

ISP Planet <http://www.isp-planet.com/index.html>. Online central location for articles, papers, et al. "The Intelligence Center for the ISP Community."

Network Computing. <http://www.networkcomputing.com/netdesign/bb1.html>. An online Network Design Manual for wireless networks.

Appendix A

Missouri Wireless Internet Service Providers

from Broadband Wireless Exchange Magazine
<http://www.bbwexchange.com/wisps/missouri-wisps.htm>.

City/County	Company	Sales Phone #	Sales Email Address	Downstream	Upstream	Price
Albany	AlbanyMO.net	660-726-3935	wireless@albanymo.net	1.5 Mbps	1.5 Mbps	$39
Branson	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$70
Carrollton	Carrollton Internet Service	660-542-3002	david@carolnet.com	512 Kbps	512 Kbps	$69
Center	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650
Chesterfield	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Columbia	US Internet & Wireless	573-874-3609	admin@usiw.net	1.5 Mbps	1.5 Mbps	$100
Dardenne	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Dexter	JABR Comm	866-624-8654	don@cjkinc.net	1.5 Mbps	1.5 Mbps	$69
Hannibal	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650
Hollister	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$70
Independence	CTC Companies	816-461-4466	larry@homeisp.com	1.5 Mbps	1.5 Mbps	$750
Kansas City	WorldCom Broadband	866-926-6327	broadband@wcom.com	1 Mbps	512 Kbps	$599
Kimberling	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$70
Lake St. Louis	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Lamar	Tiadon Systems	417-682-5085	askus@tiadon.net	1.5 Mbps	1.5 Mbps	$400
Malden	Southeast Missouri Online	877-686-9114	broadband@semo.net	512 Kbps	512 Kbps	$149
Marshall	CDS inet LLC	660-886-4045	jkiser@cdsinet.net	128 Kbps	128 Kbps	$49
Maryville	ASDE Computer Services	660-582-2703	asde@asde.net	1.5 Mbps	1.5 Mbps	$100
Moberly	Mississippi Valley Comm.	660-263-6300	libby@missvalley.com	768 Kbps	768 Kbps	$100
Monroe City	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650
New London	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650
Nixa	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$70
OFallon	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Ozark	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$70
Palmyra	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650
Perry	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650
Poplar Bluff	Southeast Missouri Online	877-686-9114	broadband@semo.net	512 Kbps	512 Kbps	$149
Prarie	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Reeds Spring	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$70
Salisbury	Mississippi Valley Comm.	660-263-6300	libby@missvalley.com	768 Kbps	768 Kbps	$100
Sedalia	Central Communications	660-826-6747	rdeford@centralcomm.net	1.5 Mbps	1.5 Mbps	$595
Springfield	Tablerock.net	877-334-0494	shane@tablerock.net	1.5 Mbps	1.5 Mbps	$7
St. Charles	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
St. Louis	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
St. Louis	US Wireless Online	404-815-8110	david@uswo.net	1.5 Mbps	1.5 Mbps	$469
St. Paul	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
St. Peters	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Warrenton	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Weldon Spring	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
Wentzville	Infiniplex	636-561-0680	myoung@infiniplex.com	768 Kbps	768 Kbps	$399
West Quincy	Caldwell Wireless Internet	573-221-5321	brian@packetx.net	1.5 Mbps	1.5 Mbps	$650

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