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The Case for Municipal Broadband in Florida

Why barriers to entry stifle economic development,
disadvantage school children,
and worsen health care.

Executive Summary

Big Bend Rebar had a problem. They wanted to locate their new manufacturing facility in the city of Quincy's new business park. But Big Bend Rebar relied heavily on broadband communications for finding new business, reviewing proposals and designing and manufacturing metal projects. The local communications company, TDS, was not able to provide the broadband service they needed.

As the company built its factory and warehouse in the summer of 2003, Big Bend Rebar had invested in the software and hardware needed to facilitate the manufacturing of rebar. The company's operation is totally automated and requires the complete integration of machinery with specialized software. Big Bend Rebar had already invested \$1,250,000 in software and machines.

Big Bend Rebar wanted to start their business in September of 2003. Ninety days prior to opening, the company signed service contracts and scheduled software experts from Pennsylvania and Italy for onsite installation and interfacing of the software and machines. Big Bend Rebar required the fastest internet connection possible to aid in this installation as well as for the daily functions of the business. Big Bend Rebar contacted the local telephone provider to see if they could provide the service. TDS, the local private telephone company, was not offering the services Big Bend Rebar needed.

Big Bend Rebar contacted the city of Quincy, who provided technical support to the company during the interfacing and installation of the software and hardware. Today the city is providing the broadband service necessary for Big Bend Rebar to perform operations. The company has brought 10 new jobs to Quincy and has expectations to grow considerably.



From fiber optic communications between medical offices and hospitals in and around Leesburg, to advanced services for schools, students and a business park in Quincy, to a wireless "Downtown Canopy" in Tallahassee, cities and towns throughout the State of Florida are taking charge of their futures by investing in new, exciting and innovative broadband technologies that attract businesses, educate the young, and improve the quality of life. For many communities, the availability and affordability of broadband services is just as important to their future as roads, schools, water systems, airports and convention centers have been in the past. Unfortunately, legislation has been designed to restrict or inhibit the ability of Florida's municipalities to provide these vital public services to their communities which puts millions of Floridians at risk of being left behind in the digital revolution.

Broadband is a transformative technology for businesses and consumers. It offers important development opportunities to our communities – similar in many respects to the railroad in the late 19th Century. Communities that have universal and affordable access to broadband services will see economic growth, new jobs, better schools, improved health care, and a higher standard of living than communities without broadband. Evidence of the positive and widespread economic impact of affordable and modern broadband services is as abundant as it is compelling. Given the potential for communities to be left behind in the digital economy if inadequate broadband infrastructure is in place, there is little surprise that underserved municipalities throughout Florida are investing in these networks of the future. As technology entrepreneur and scholar Charles H. Ferguson recently noted, the cost of local telecommunications services "is now

the largest financial and economic impediment to universal Internet access” but “the rate of progress in local telecommunications is the lowest of any information technology industry.”¹

The Florida Municipal Electric Association (FMEA) strongly believes that it would be a mistake to restrict municipalities from providing broadband services and imprudent to require those communities to “wait-and-see” whether private operators will provide equivalent service. Broadband infrastructure offers tremendous public benefits, and any delay in the deployment of this infrastructure threatens the progress of these communities. If communities are forced to wait for broadband services:

- Important economic development opportunities will pass them by for neighboring states and regions,
- Children will lose educational opportunities, and
- Health care will be more expensive and less accessible.

Any restriction on local government provision of broadband would limit achievement of the national policy of the United States, which as President Bush noted in 2004, is “to make sure broadband technology is available in every corner of America by 2007.”² Municipalities deploying broadband technology play a critical role in meeting this objective, especially in underserved communities, as the President and his Administration have recognized. To meet President Bush’s universal broadband goal, deployment by any entity willing to invest in broadband should be encouraged, not limited.

Barring an entire class of broadband technology providers in Florida would frustrate this national policy goal, and at a minimum, harm Floridians in 32 communities

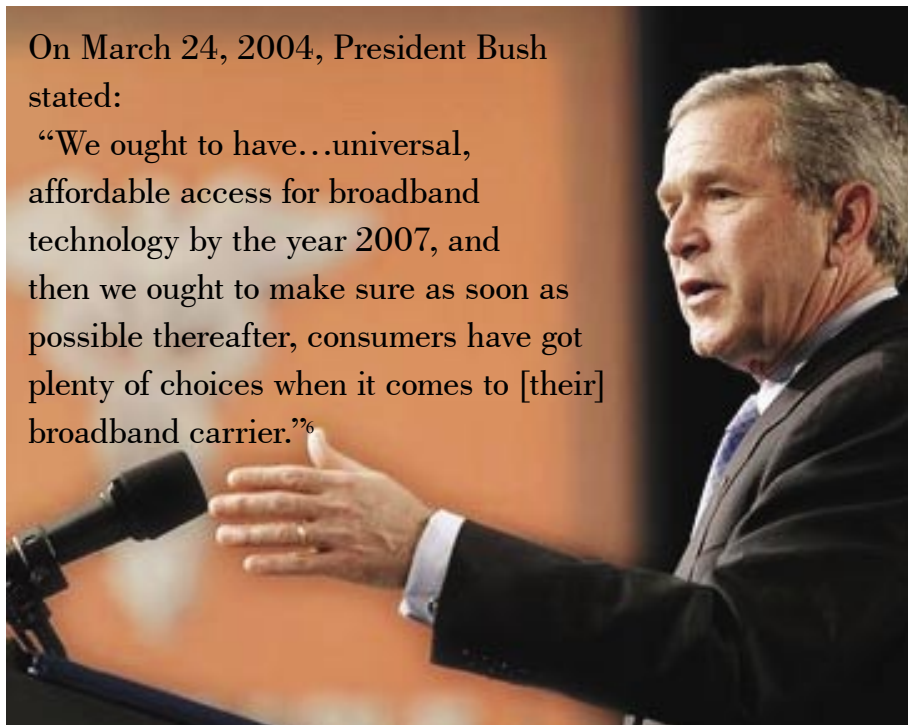
with a population of 2.8 million consumers and businesses by depriving them of the opportunity to achieve high-quality broadband communications. For this reason, information technology firms such as Intel and industry groups like the High Tech Broadband Coalition, which counts the Consumer Electronics Association, the National Association of Manufacturers, and the Semiconductor Industry Association as members, and the Fiber-to-the-Home Council, which includes company members 3M and Corning, have publicly stated their opposition to efforts to restrict or prohibit municipal investment in broadband technology.³ Support for municipal broadband is widespread, and its potential to hasten broadband deployment is clearly recognized. Lee Gomes recently observed in the Wall Street Journal that “well-thought-out city plans could help everyone by acting as a catalyst and shaking up the status quo.”⁴

Municipalities invest in broadband

The national policy of the United States, as noted by President Bush, is “to make sure broadband technology is available in every corner of America by 2007.”

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“We ought to have...universal, affordable access for broadband technology by the year 2007, and then we ought to make sure as soon as possible thereafter, consumers have got plenty of choices when it comes to [their] broadband carrier.”⁶



President Bush cited the municipal deployment of a wireless network by the City of Spokane, Washington, as an example of how to achieve his universal broadband goal: “Cities are [taking advantage of broadband technology.] Spokane, Washington, yesterday established a wi-fi hot zone that allows users within a hundred block area of the city to obtain wireless broadband access. Imagine if you’re the head of a chamber of commerce of a city, and you say, ‘Gosh, our city is a great place to do business or to find work. We’re setting up a wi-fi hot zone, which means our citizens are more likely to be more productive than the citizens from a neighboring community.’ It’s a great opportunity . . . [T]his is a very exciting opportunity for the country.”⁷

infrastructure to reap the public benefits of that investment, not for short-term profits. Broadband creates better schools, new jobs, a more attractive business climate for the community as a whole, and a broader and more high-quality tax base – benefits that private suppliers may not recognize in making profit-oriented investments. This failure is most evident in smaller, disadvantaged and rural communities with poor or expensive service. Municipalities are far more likely to recognize and respond to the broader community benefit from investments in fiber-to-the-home (FTTH) networks and wide-spread wireless technology (such as wi-fi) than private, subscription-based companies.

While critics charge that municipalities “crowd out” private investment, the reality in Florida shows that where municipalities invest in broadband, there are more private providers of broadband services. Municipalities frequently sell broadband services to private communications firms, and the result is a more competitive and symbiotic environment that benefits both consumers and the private sector. Critics also charge that municipalities only succeed due to tax exemptions and subsidies – but Florida municipalities return as much, if not more, funds to public treasuries than private telecom firms. And as for subsidies – well, incumbents themselves have received direct subsidies of nearly \$390 million in the last five years to provide service in Florida.

Municipalities are vital to President Bush’s goal of “universal, affordable” broadband service by 2007

The growth of broadband services to consumers is a key plank in President Bush’s Technology Agenda, which notes that broadband infrastructure will “improve the Nation’s economic productivity and offer life-enhancing applications, such as distance learning, remote medical diagnostics, and the ability to work at home more effectively.” As a result, the President “wants to make sure we give Americans plenty of technology choices when it comes to purchasing broadband.”⁵

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“We ought to have . . . universal, affordable access for broadband technology by the year 2007, and then we ought to make sure as soon as possible thereafter, consumers have got plenty of choices when it comes to [their] broadband carrier.”⁶

He reiterated this point just three months later in a speech before the Department of Commerce on June 24, 2004: “What we’re interested in is to make sure broadband technology is available in every corner of America by the year 2007. I mean, all over the nation.” Indeed, in this same speech, the President cited the municipal deployment of a wireless network by the City of Spokane, Washington, as an example of how to achieve his universal broadband goal:

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than the citizens from a neighboring community.’ [T]his is a very exciting opportunity for the country.”⁷

The Administration is backing up these words in support of community deployment with action. The United States Department of Commerce has channeled millions of dollars to fund publicly-owned broadband networks in block grants through the Economic Development Administration, including projects like a 300-mile fiber optic network in the Southside Virginia region and a 400-mile fiber optic network in northern Vermont.⁸ The Department has also recently earmarked millions of dollars of grants from the Public Telecommunications Facilities Program for local communities to “extend delivery of services to as many citizens as possible,” including distance-learning broadband projects.⁹ These projects recognize that broadband networks confer substantial positive, public interest benefits upon the communities they serve beyond the ordinary profit motive and that government involvement, especially by local governments, is an important component in achieving President Bush’s goal.

National policy also favors the use of broadband over power line (BPL) technology, a broadband service that several FMEA members are particularly interested in deploying over their electric grids. In October 2004, the FCC adopted final rules that would allow ubiquitous BPL implementation – a development that FCC Chairman Michael Powell earlier dubbed the “great broadband hope.”¹⁰ The President’s Technology Agenda states, “BPL has the potential to turn every electrical outlet into a broadband pipeline.”¹¹ Of course, if municipalities are prohibited from providing broadband services, the power plugs of consumers served by municipal

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“I think we do a grave injustice in trying to hobble municipalities. Why don’t we encourage [municipal broadband] instead of having bills introduced [saying] – ‘Oh, you can’t do this because it’s interfering with somebody’s idea of the functioning marketplace’ – but the marketplace is not functioning in those places.



Michael Capps, Commissioner,
Federal Communications Commission

President Bush’s Texas hypothetical is a reality in Leesburg, Florida. Since 1992, the City of Leesburg has been providing secure fiber optic capabilities to connect all regional medical facilities with a high-speed computer network, allowing medical professionals to share information to treat patients quickly and effectively. The high bandwidth network allows for fast sending and receiving of X-rays and MRI images between radiologists at multiple locations. On-call radiologists can review images at home in the middle of the night, eliminating the drive to the hospital which reduces the time required to diagnose and treat life-threatening injuries. A physician can also review electronically stored radiology images, prior medical records, diagnostic test results, and other crucial information either at the hospital or from his or her office, tremendously improving patient care. Medical professionals in Leesburg strongly believe that a lack of high-speed, secure fiber optic connections provided by the City of Leesburg between medical facilities would cripple their ability to provide efficient and effective care.

electric companies will not become broadband pipelines, as municipal electric companies would be barred from deploying BPL technology. Since municipal electricity is the only power source available in 32 Florida communities, 2.8 million Floridians would be robbed of one of the most likely and widely available sources of broadband available.

Broadband networks provide benefits that may not be recognized by the private sector

In studying the role of municipalities in broadband infrastructure deployment, it is important to remember that municipalities act with a public motive and not a profit motive. Municipalities invest in schools, roads, hospitals, senior centers, marinas, airports, and convention centers, all assets that positively differentiate one community from another. In those areas, direct investment by municipalities is accepted and indeed often encouraged, even though private firms can (and do) build private schools, hospitals, health clubs, marinas, and conference centers that coexist with municipal infrastructure. In today’s economy broadband communications is just as important as these community assets, if not more so. Consequently, it makes as little sense to limit investment in municipal networks as it would to limit public investment in schools and hospitals.

Like schools, hospitals, and other public services, investment in broadband infrastructure delivers substantial benefits to a community that private economic actors will not necessarily recognize and take into account when making investment decisions.¹² For example, to a private network provider, the benefit of a broadband circuit to an elementary school is the check it receives each month for the provision of service.

Likewise, the private firm's interest in providing broadband service to a hospital does not extend beyond the monthly subscription fee. In contrast, for those same circuits, the community reaps the benefits of a better education for hundreds of its children and priceless, life-saving technologies for its citizens. Put simply, privately owned network providers fail to take into account the broader community benefits of broadband services, because these broader benefits cannot be captured as profits. It is the duty of government to recognize those market failures and work to correct them for the benefit of its citizens.

By definition, private firms owe fiduciary obligations to their shareholders to maximize their profits and not to behave altruistically. But while a profit-centric view may be good for business, it is obviously not good for communities forced to endure substandard education, poor health care, and a sluggish economy. Instead of paying dividends to shareholders, municipalities owe a duty to maximize the economic development and well-being of the communities they serve, and we should expect that local communities would act and respond to this broader public motive, instead of the narrow profit motive. In cases where the public benefits of a service or technology are very large yet not fully recognized by private firms, the public provision of such service or technology is entirely legitimate. Indeed, the public provision of such services is one of the very foundations of government.

That is not to suggest that municipal entry in telecommunications should replace private broadband investment. Indeed, both public and private broadband investment exist side-by-side, and in fact, benefit one another. The coexistence of public and private

broadband is no different than the joint presence of public and private schools, public and private hospitals, and even public libraries and private bookstores. No one would seriously argue that the presence of private schools and hospitals justifies a prohibition on cities from providing a public education or public health care; nor does the presence of private booksellers such as Borders or Barnes and Noble imply that municipalities should close their libraries. No one would seriously ask a town faced with overcrowded schools to grant a "right-of-first-refusal" for private firms to construct private schools before building new or expanding public schools; nor would anyone seriously argue that the construction or expansion of a public library should be postponed without permission from the local book stores. Yet that is exactly what a right-of-first-refusal asks communities faced with inadequate broadband services to do.

The fact that municipal investment in broadband infrastructure is directed at the public interest is evident in the municipal broadband implementation we currently see in Florida and nationwide. Indeed, municipalities often deploy more extensive and robust broadband networks than the private sector would construct. For example, in Leesburg, the municipal electric company has built an extensive county-wide fiber network that services 44 schools, the community college, the regional hospital, several diagnostic outpatient centers, doctors' offices, and many businesses. The network provides physicians the opportunity to review medical files and X-rays at multiple locations, to the direct benefit of patients. In fact, President Bush's Technology Agenda "envisions a dramatically changed system" in which all health care records are computerized within

One result of this reduced investment in communications infrastructure is that the United States ranks 13th among the industrial nations with regard to broadband deployment.²⁰ Many of the countries ahead of us – Korea, Canada and Japan – have used municipal systems and governmentally-provided infrastructure as important components of their broadband strategy.²¹

Why are municipal electric utilities involved in this debate?

In order for electric utilities to produce and deliver electricity, they need information. Utilities share information between their substations, power plants, control rooms and headquarters. To maintain a high degree of reliability, many utilities do not depend on public telephone or data systems – they communicate using their own network – generally a fiber optic one. Thus, electric utilities have constructed miles of underutilized fiber optic capacity. Many utilities lease the excess capacity to private communications companies. Others, chiefly in small, rural and underserved areas, have recognized the vast capability of their network for their local community, and have begun to make it available as a tool for local businesses, schools and hospitals. The Florida Municipal Electric Association (FMEA) represents 32 municipal electric utilities, some of which operate communications systems, in total serving a statewide population of 2.8 million Floridians.

ten years¹³ and this goal would be facilitated by widespread availability of broadband infrastructure. As President Bush described in a 2004 speech,

“Imagine what’s going to happen in Texas when ... they’re looking for a specialist, and a parent is panicked about whether or not their loved one is going to receive the care needed and they don’t have – they can’t drive 600 miles to a local hospital. They call up [a doctor] via broadband technology and he is able to analyze the child from afar – it’s very sophisticated software – and give the reassuring words to the parent, everything is okay. And whether it be cardiology or ear infection, any other aspect of medicine, we’ll be able to make sure health care is available throughout the country by using this technology. The quality of life for our citizens is going to improve dramatically as we spread this technology all across America.”¹⁴

Since municipal broadband infrastructure serves a public need, and is not developed for the sole purpose of making a profit, we should expect that those networks contain higher bandwidth than private sector deployment. Indeed, the FCC has found that municipalities have deployed significantly more fiber-to-the-home (FTTH) networks than incumbent telephone companies and cable companies.¹⁵ FTTH technology offers each household data transfer rates of well over 100 Megabits per second (Mbps) up to several Gigabits per second – easily five hundred times the 200 kilobits per second (kbps) that some private entities classify as “broadband.” The result in communities like Leesburg and Gainesville is a torrent of bandwidth sufficient to stream simultaneously high-speed Internet access, multiple video feeds, and voice service. Communities like Leesburg that have deployed such networks have public hospitals that transmit medical

images such as MRIs and X-rays directly to doctors’ offices for faster and better diagnosis. At 200 kbps, transmission of a dozen X-rays would take more than one hour; over an all-optical network, the transmission would take just a few seconds.

Municipalities are also on the cutting edge of deploying wireless (wi-fi and wi-max) networks and BPL. JEA, the municipal electric utility in Jacksonville, is conducting a trial of BPL technology to help low-income inner-city families with asthmatic children learn about and manage their illness. Another has a plan to provide BPL throughout its community, a service which its citizens and businesses have expressed a strong interest in seeing implemented. However, the project is on hold, awaiting the outcome of the 2005 legislative debate.

Alternatively, instead of aggressively rolling out new technology, private sector actors have an incentive to leverage older, existing networks as long as possible before making new infrastructure investments. Indeed, from 2000 to 2003, BellSouth and Verizon (the two largest local telecommunications companies in Florida) reduced their capital expenditures by 39%, or \$9.5 billion. (See Table 1) BellSouth has announced that it will not deploy fiber-to-the-home technology and will instead only deploy “fiber-to-the-curb” (FTTC), which utilizes existing copper wires that will not even provide 1/10th the bandwidth potential as FTTH.¹⁶ Moreover, BellSouth is deploying this technology neither swiftly nor ubiquitously – its current plans call for deploying FTTC to 1% of its current customers per year, and a number of customers, particularly those in urban areas served by copper loops, may not see any upgrade at all. At this rate, communities would need to wait more than sixty years before BellSouth

would have FTTC or FTTC-like bandwidth available universally.¹⁷ Verizon has a more aggressive fiber deployment plan (but still short of FTTH everywhere) that has come under substantial scrutiny from Wall Street analysts as to whether such a network investment will be profitable. While the President of Verizon's Network Services Group Paul Lacouture has stated that "3 meg is not enough...15 meg is not enough,"¹⁸ it is far from clear whether Verizon will, in the end, be able to raise the billions of dollars it needs from Wall Street to construct this network; in the meantime, Verizon customers have discovered that promised levels of service do not necessarily translate into actual availability.¹⁹

One result of this reduced investment in communications infrastructure is that the United States ranks 13th among the industrial nations with regard to broadband deployment.²⁰ Many of the countries ahead of us – Korea, Canada and Japan – have used municipal systems and governmentally-provided infrastructure as important components of their broadband strategy.²¹

Raising these facts is not meant as criticism of the incumbent telecommunications companies. Their capital investment decisions may be entirely rational by privately owned firms seeking to maximize profits for as long as possible from existing infrastructure. Since these firms are obligated to maximize shareholder profits, they lack the motivation to deploy broadband with the breadth and speed that the public interest requires. Alternatively, instead of paying shareholders, municipalities owe a duty to maximize the economic development of the communities they serve, and our cities and towns are acting and responding to this broader public motive, instead of the narrow profit motive. In many cases, the public and private motives align, but

Broadband delivers medical help to inner city, asthmatic children

The Nemours Children's Clinic in Jacksonville and JEA, the local municipal electric utility, are teaming up in a pilot study to investigate the use of broadband communications to deliver better health care for low-income, inner city, asthmatic children. Asthma is a pediatric, life-threatening illness affecting 5 million children nationally. It is the most common pediatric disease and is one of six pediatric diseases that account for 90% of avoidable pediatric hospitalizations. Nemours has found that asthmatic children can significantly avoid asthma attacks with more frequent medical education and visits by a nurse or doctor. The problem many low-income families have, however, is finding the transportation to travel to the doctor's office, and the hours of time spent doing so. They now have found a solution – telemedicine.

JEA is using a relatively new, but proven communications technology, broadband over powerlines (BPL) to deliver data over their electrical wires. The network allows doctors and nurses at the Nemours clinic to visit with children and families via computer in their homes. This negates the need for travel, and takes very little time out of the day for both patient and physician. Doctors and nurses will literally have live visits with their patients. During an online visit, a doctor or nurse will communicate via web camera. They will take blood pressure, pulse rate, body temperature, and even measure the asthmatic child's breathing ability using a flow meter. They will talk about use of medicines and other issues in the patient's life that contribute to avoiding asthma attacks.

Through these weekly "visits," Nemours plans to significantly improve the health of these young asthmatic patients.

The project is the first application in the United States of BPL used for telemedicine and is partially funded by a grant from U.S. Department of Commerce's National Telecommunications and Information Administration.



Do not be fooled — this debate is not between “purely” private companies and municipal governments; it is between heavily-subsidized beneficiaries of governmental handouts on one side and locally-elected and openly accountable public servants on the other.



in others, they do not. For modern broadband technologies, it is clear that the public and profit interests sufficiently diverge to require action by local government.

Municipal broadband investment does not “crowd out” private investment

A frequent, though unsubstantiated claim against municipal broadband is that public investment in communication networks “crowds out” private investment. A recent analysis by Applied Economic Studies, Inc., shows that municipal investment in broadband infrastructure does not restrict private investment in similar infrastructure; indeed, the two often coexist and benefit one another.²²

This study uses robust statistical analysis to examine the relationship between municipal broadband investment and the health of competition between local providers in Florida. Results show that where municipalities have invested in broadband infrastructure, local telecommunications competition is more robust and vibrant. The study relies on data from the Florida Public Service Commission on the number of competitive telecommunications firms serving particular cities in the state of Florida. Contrary to unsubstantiated claims by private companies, the study renders compelling evidence that municipal investment in communications actually stimulates private firms’ investment in those cities. In fact, municipal construction of communications networks expands the number of private firms serving the same market by more than 60%. In this study, no evidence was found to support the argument that municipal communications systems limit private investment.

The findings of this study are confirmed by anecdotal evidence of the opportunities FMEA members provide to private communications

Table 1.
Capital Expenditures (in billions) by Florida’s Largest ILECs

Year	BellSouth	Verizon	Both
2000	\$7.0	\$17.6	\$24.6
2003	\$3.2	\$11.9	\$15.1
Change	-3.8	-5.7	-9.5
Percent Change	-54%	-32%	39%

Source: Compustat

firms in their regions. Leesburg, for example, leases strands of its fiber network to alternative providers, so that those private firms can utilize Leesburg's network to deploy their own services cost-effectively. Similarly, Gainesville provides high-capacity circuits to independent wireless providers, making those networks more cost-effective. Indeed, a Verizon spokesperson in upstate New York recently lauded Erie County's wireless broadband infrastructure, stating that the county's network "makes people more aware of the benefits of broadband" and will eventually help Verizon sell its own broadband services.²³ The symbiotic relationship between public investment in broadband infrastructure and private deployment of competitive telecommunications services shown by the Applied Economic Studies analysis can be compared to the cycle of economic growth in hotels with meeting space that a city might see after it funds and constructs a new convention center.

Municipal broadband investment occurs on a "level playing field"

Critics of municipal broadband investment have argued that municipalities have an undue "advantage" in deploying broadband infrastructure. This criticism is entirely without merit.

As a first and important matter, these "fairness" arguments fail to consider the public purpose behind municipal broadband infrastructure investment. Municipalities do not invest in broadband infrastructure to compete with private providers; municipalities make these investments in order to serve their communities and reap the social benefits that the infrastructure possesses. A government broadband provider may provide a service – like the Quincy Homework Helpline –

that has very little economic or profit-motive benefit, but which meets the goals of serving and improving the greater community. Comparing the "levelness of playing fields" between municipalities and private providers is of little use when municipalities and private providers are not even "playing the same game."

It is also important to consider the playing field on which the incumbents operate. Incumbent local exchange carriers and cable companies were often granted exclusive franchises by state and local governments to serve a particular geographic area. In exchange for this government-protected monopoly (over telephone service for telephone companies like BellSouth, and over cable video services for firms like Comcast), these incumbents were generally required to construct network facilities throughout that geographic area. The result is that government bequeathed to these private companies large networks with economies of scale and scope. In 1995, Florida recognized the opportunity to encourage new providers and enhance consumer choice by passing legislation partially deregulating the telecommunications industry. The Act changed the prevailing regime, moving toward a new set of rules where incumbents were no longer granted geographic monopoly service territories. In exchange for allowing new competitors to enter the market, the 1995 law loosened regulatory oversight over incumbents. However, the 1995 Act recognized that these "legacy monopolies" would continue to enjoy a substantial competitive advantage in the market – the greatest being their mammoth size and customer base, widespread advertising and branding, and substantial financial resources – and went to great lengths to encourage new entrants in order to combat these

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The only assured outcome of the "right-of-first-refusal" is that some communities which might have provided broadband infrastructure themselves will instead be served by an unregulated monopoly that only reluctantly provides service in the community.

Even in crowded urban areas, the availability of broadband can vary from one neighborhood to another, stranding one group of streets and homes on the wrong side of the “digital divide” while two, three or even four broadband providers serve their privileged neighbors.

significant incumbent advantages.

Moreover, there is no evidence that Florida local governments subsidize these services to a greater extent than the subsidies received by incumbents – subsidies not available to other entrants in the marketplace. The Florida Legislature has acted in the past to require that when a local government provides telecommunications services, it should pay substantially the same taxes as do incumbents. Local governments collect and pay the same 13.5% communication service tax that incumbents pay, the same sales taxes on tangible personal property purchased for the provision of such services, the same intangibles tax related to communications systems, and the same ad valorem tax, to the extent it is constitutionally permissible. A study by FMEA in 2003 concludes that municipal electric utilities remitted 14.6% of their revenues to state and local governments in the form of taxes and direct payments-in-lieu-of taxes.

While no study has been done to date on municipal communications enterprises, analysts predict that the contribution to general government will be in the range of 6-10%. On the other hand, data reported by the incumbents to the FCC shows that the Florida state and local tax burden for private incumbent telecommunications companies in 2003 was approximately 3.5%. By comparison, this contribution hardly constitutes an argument for “leveling the playing field.” (See Table 2)

In addition, it is disingenuous to claim that municipal communications infrastructure may be inappropriately subsidized when, in fact, incumbent telecommunications firms remain among the most-subsidized private companies in the United States. Over the years, Florida’s incumbent telephone companies have received hundreds of millions of dollars in direct federal and state subsidies.

Table 2. State & local tax comparison, 2003

Carrier/type	Effective state/local tax rate
BellSouth	3.4%
Verizon	3.6%
Municipal Electrics	14.6%

Sources: FMEA and FCC ARMIS 43-03 (2003)

Table 3. Federal subsidies to Florida’s ILECs

Carrier	2004 subsidies (millions)	5 year total subsidies (millions)
Verizon	\$28.0	\$123.0
Sprint	\$19.2	\$83.1
BellSouth	\$10.0	\$61.1
Smart City	\$9.9	\$43.3
GTC	\$9.8	\$34.9
AllTel	\$1.0	\$15.9
Northeast Florida	\$2.4	\$9.9
TDS-Quincy	\$1.6	\$8.6
ITS Telecom	\$1.3	\$7.0
Frontier	\$0.4	\$2.6
Total	\$83.7	\$389.3

Source: FCC Monitoring Reports (www.fcc.gov)

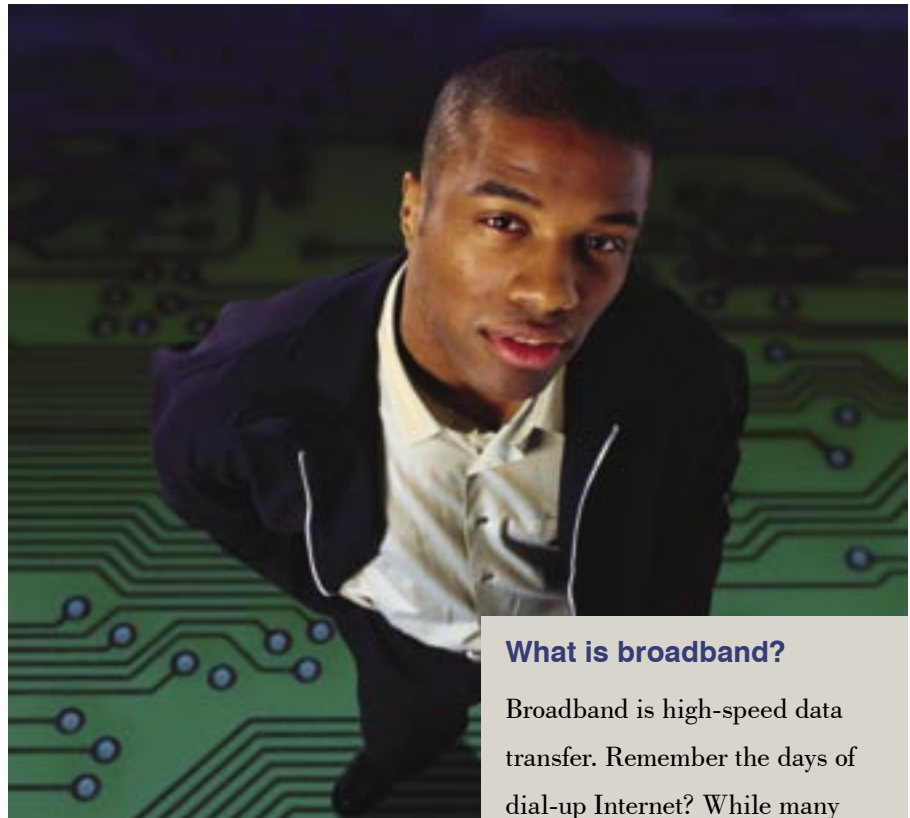
Table 3 shows that Florida's incumbents still receive more than \$80 million a year in direct federal subsidies, and have received nearly \$400 million over the past five years. In certain small and rural communities, these subsidies are substantial and amount to several hundred dollars per year for each household – yet robust broadband service still is not available in many of them.

A closer look at the primary arguments levied against municipal entry reveals an undeniable truth: the companies that are most vocal in opposition to public, municipal broadband investment are some of the largest recipients in this country of corporate welfare. Do not be fooled – this debate is not between “purely” private companies and municipal governments; it is between heavily-subsidized beneficiaries of governmental handouts on one side and locally-elected and openly-accountable public servants on the other.

Florida businesses and consumers risk losing telecommunications choices

Because of recent FCC rulings and industry consolidation that threatens to reconstitute the Bell System monopoly, now is certainly not the time to be limiting broadband options for Florida businesses and consumers.

The FCC is currently implementing new local competition rules that will sharply limit the ability of competitors to provide economical telecommunications services throughout Florida. These new federal rules will impact many Florida consumers. As of June 30, 2004, the competitors held just a 16% share of the residential and small business “mass market” in Florida, but data filed before the Florida Public Service Commission



What is broadband?

Broadband is high-speed data transfer. Remember the days of dial-up Internet? While many people are still stuck in those dial-up days, others are slowly gravitating toward faster data transfer speeds. Dial-up transfer speeds, via telephone wires, is 56 kilobits per second (kbps). That's slow. Digital subscriber line (DSL) offers about 1 megabit per second (Mbps, which is 1,000 kbps, or nearly 20 times faster than dial-up. Fiber to the curb reaches 1.5 Mbps. Wireless-fidelity, or WiFi, reaches transfer rates of 6 Mbps, and fiber-to-the-home allows the fastest broadband possible today, with data speeds of 100 Mbps.

in 2004 show that nearly 90% of this mass market competition was the result of competitors leasing switching capacity on the networks of incumbent local telephone companies. Under the FCC's new rules, competitors no longer have unbundled access to the incumbents' switching facilities, and access to other incumbent network facilities has been severely curtailed. In response to the new rules, most competitors (including AT&T and MCI) have decided to halt the provision of traditional telephone service to residential consumers and small businesses. The outcome of the new rules is predictable: BellSouth has already taken back 165,000 mass-market customers from its competitors since last summer when the FCC announced its intention to change these rules.²⁴ The decline in competition is accelerating, as BellSouth took back twice as many

The truth about the “level playing field”

The playing field is not tilted in favor of the private companies; it is tilted heavily against local government.

The table below shows the taxes paid by both private and public providers. It also identifies the regulations that must be followed. From the perspective of taxes, it is clear that both private and public communications providers operate on a near level playing field.

Regarding regulation, it is also clear that public providers must comply with significantly more regulations than do private providers. Take, for example, sunshine laws. All aspects of government operations are open for competitors to review. All discussions between local decision makers, the elected officials, are done in public. How many BellSouth board of directors meetings are open to the public? How frequently does Verizon copy its internal strategic plan for its competitors? How often does Sprint allow reporters in its high-level decision making meetings? The answer to all these questions: Never. But that’s exactly what local government does, several times each month, in public. Is that a disadvantage? Of course. But local government lives with the burden, recognizing that public participation and scrutiny makes their community projects stronger and more widely accepted. The playing field is not tilted in favor of the private companies; it is tilted heavily against local government.

Taxes and revenues	Public	Private
Gross Receipts Taxes	Yes	Yes
Sales Tax	Yes	Yes
Communications Services Tax	Yes	Yes
Documentary Stamps	Yes	Yes
Intangibles Tax	Yes	Yes
Property Tax	Yes*	Yes
Payment in lieu of taxes	Yes	No
Corporate Income tax	No	Yes

Regulatory requirements

Public purpose requirement	Yes	No
Public records law	Yes	No
Open meeting law	Yes	No
Competitive bidding	Yes	No
Civil service	Yes	No
Public hearings on budget/financing	Yes	No
Public election or recall of CEO (Mayor)	Yes	No
Conflict of interest standards	Yes	No
Intra-fund transfer restrictions	Yes	No
Investment restrictions	Yes	No
Local regulation via referendum and initiative	Yes	No

* Under dispute at the Florida Supreme Court

customers in the fourth quarter of 2004 as it did in the third quarter.

As a result of that FCC decision, AT&T has ceased to provide competitive residential services in Florida and agreed recently to be acquired by SBC, an incumbent local telephone company. This transaction should result in even less competition in Florida, as both SBC and BellSouth jointly own Cingular Wireless, the largest wireless provider in the state.²⁵ Earlier this month, MCI agreed to be acquired by Florida's second-largest incumbent local exchange carrier (LEC), Verizon, and both the SBC-AT&T and Verizon-MCI transactions follow on the heels of Sprint's (Florida's third-largest incumbent LEC) acquisition of the largest independent wireless company, Nextel.

The effects on consumers of this consolidation are expected to be profound. In a news report on the potential acquisitions of both AT&T and MCI, the *Wall Street Journal* said:

"For consumers and companies, whose options for buying phone and service have multiplied in recent years, the disappearance of [AT&T and MCI] would mean fewer choices, potentially, higher prices, and could cut down on innovation. ... Since the 1996 [Federal] Telecom Act, millions of telephone users reaped the rewards of greater competition as the local phone giants and long-distance companies invaded each other's businesses. ... But those gains could erode with the disappearance of the country's two biggest long-distance providers."²⁶

Not only do these transactions remove the two largest residential mass market competitors, AT&T and MCI, from the Florida market, they also could stifle the emergence of cross-platform, "intermodal" competition between networks. When all the deck chairs are

rearranged, the three largest wireless companies in Florida will be owned by the three largest incumbent local telephone companies in the state (BellSouth/AT&T/SBC, Verizon/MCI and Sprint/Nextel). The FCC has observed that "these companies have an incentive to protect their wireline competition base from intermodal competition," and the FCC even noted that SBC and BellSouth have "created cross-company teams" that develop Cingular products designed to "integrate Cingular's wireless services with SBC's and BellSouth's wireline services."²⁷

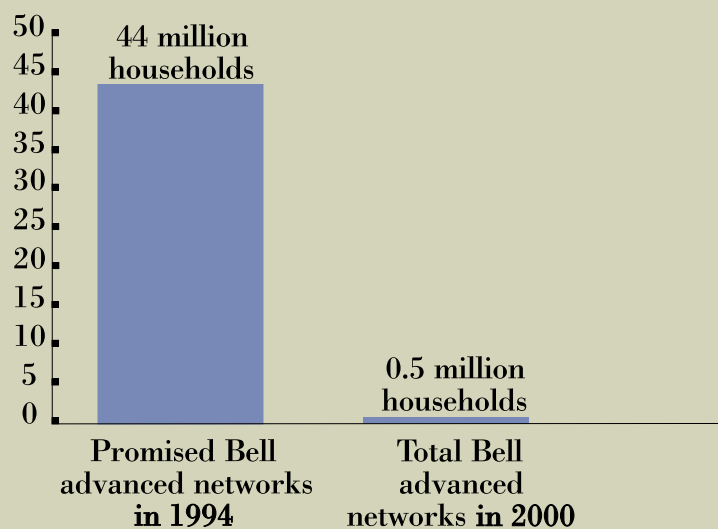
Municipally-owned networks are an important source of alternative network infrastructure, and competitors – especially now – need these alternatives to be present (and expanding) in order to avoid a "lack-

of-competition" disaster and a return to monopoly telecommunications in Florida. Indeed, BellSouth and Verizon have argued to the FCC that the presence of alternative networks in Florida – including networks deployed by municipalities – justify the FCC's elimination of these local competition rules.²⁸ It would be surprisingly strange for the State of Florida to prohibit municipal broadband infrastructure investment immediately after the FCC has established local competition rules drafted with reference to evidence of the growth of municipal networks.

Some municipal networks are already filling that gap and offering services to competitive providers – for example, Gainesville provides critical high-bandwidth network services for wireless companies and one



The Bells overpromise and underdeliver



Source: Bell Annual Reports, New Networks Institute, 1994-2000

Communities that have universal and affordable access to broadband services will see economic growth, new jobs, better schools, improved health care, and a higher standard of living than communities without broadband.

Florida municipality is partnering with a CLEC, KMC, to construct new broadband network facilities within city limits. This type of new network construction and innovation should be encouraged by Florida policymakers, not discouraged.

It is clear to see both sides of the incumbents' game plan – first convince the FCC to repeal the network access rules by arguing that municipal networks are a credible competitive alternative, then convince the Florida legislature to ban municipal networks from operating in the state. It appears as though they assumed that neither the FCC nor the Florida legislature would pay attention to what the other was doing.

Conclusion

Broadband services will have an important role in Florida communities and on our citizens. Broadband networks are as important to the future of our communities as schools and roads, so it is no surprise that some municipalities are taking charge of their digital future and are actively investing in new network infrastructure. The provision of broadband services confers significant and substantial public benefits upon a community, and it is an economic fact that services with such positive externalities will be under-provided by private firms in a competitive market. This fact is made evident every day in the Florida communities that have deployed these technologies – from broadband services for students in the low-performing school system in Quincy to high-speed data and image transfer for rural health care centers in Leesburg.

FMEA opposes a “right-of-first-refusal” approach to broadband infrastructure investment. As discussed above, municipalities invest in broadband infrastructure for different reasons than private entities, and the private benefits recognizable through the profit motive account for only a small portion of the potential social and public benefits of this infrastructure. Because of these social benefits, any private investment that would result from a first-refusal process would be inadequate to capture the majority of those social benefits to our communities.

The only assured outcome of the “right-of-first-refusal” is that some communities which might have provided broadband infrastructure themselves will instead be served by an unregulated monopoly that only reluctantly provides service in the community. It's a prescription for the worst of both worlds: low quality and high prices.

Moreover, local communities should not be forced to wait for broadband infrastructure. If Florida is to meet President Bush's goal of universal broadband service by 2007, communities that want to take charge of their future and begin investing now should be encouraged to do so by Florida law and not have the law throw cold water on them. Moreover, there is significant evidence that private incumbents have "over-promised and under-delivered" when it comes to broadband deployment commitments. Between 1994 and 2000, the Bell companies promised that they would hook up 44 million homes to advanced networks by 2000, almost half of America's households. The reality in 2000 was much more sobering: 500,000 households, nationwide.²⁹ In 2000, they over-promised and under-delivered by nearly 90%; why should we believe their bait-and-switch promises today?

Just a few years ago, economic development meant setting aside land on the edge of town for a business park, providing water, sewer and electric, producing a fancy brochure, offering tax breaks and marketing in nationwide magazines. Today, businesses need one more ingredient: high-speed broadband. If it's not available – and broadband is not available in many smaller and rural areas – businesses don't hesitate to locate in other cities or out-of-state. It turns out that without a high-capacity broadband ingredient, the economic development recipe falls flat.

Broadband access has become increasingly essential to economic growth, health care, and education. What electric power and telephones were to the 20th Century, high-speed broadband access will be to the 21st. Towns that don't have affordable broadband lose jobs. Their children are disadvantaged in college and in the workforce, where

fluency with computers and the Internet is increasingly assumed. Rural towns without broadband cannot take advantage of new breakthroughs in telemedicine or the economic opportunities created by telecommuting. Even in crowded urban areas, the availability of broadband can vary from one neighborhood to another, stranding one group of streets and homes on the wrong side of the "digital divide" while two, three or even four broadband providers serve their privileged neighbors.

President Bush's Technology Agenda sets a high bar – the universal availability of broadband services by 2007. FMEA members are helping Florida achieve that goal. Construction of these community networks is increasing across the country like wildfire, fueled by innovative local leaders, new technology, and federal grants. We should expect incumbent network owners to resist construction of modern, high-speed facilities that use innovative technologies, but Florida citizens and communities cannot be bystanders as the broadband future plays out in other states and regions.

The more logical approach is to support local government efforts to serve their communities with advanced communications services.

The telecommunications division of Gainesville

Regional Utilities, GRUCom,

will soon deploy Gainesville's first commercial Gigabit Ethernet service to the University of Florida.

"UF's goal is to be one of the top research universities in the country, and anything we can do through the provision of telecommunication services to help them meet their goal is a feather in the cap of our community," said GRUCom Director Ted Kellermann.

For 10 years, GRUCom has provided high bandwidth services to many organizations in the Gainesville area including the City of Gainesville, Alachua County Libraries, Alachua County, the School Board of Alachua County, Florida Gainesville Technology Incubator Center (GTEC) and Shands Healthcare. In 1994, GRU constructed a fiber-optic ring to serve the high-speed, high-volume data transmission needs of the community.

In 2004, Gainesville was identified by *Popular Science* as the most technologically advanced city in Florida, and 30th in the nation.

Endnotes

1. Charles H. Ferguson, *The Broadband Problem: Anatomy of a Market Failure and a Policy Dilemma* (2004) at 8, 41.
2. *Id.*
3. See, e.g., David Haskin, “Intel Throws Support to Municipal Wi-Fi Projects,” *Mobile Pipeline* (Jan. 12, 2005), <http://www.mobilepipeline.com/showArticle.jhtml?articleID=57700748> (quoting Intel spokesman referring to legislative battles to restrict municipal entry as a “disturbing trend” and stating that “we don’t think the right of first refusal is a good model.”)
4. Lee Gomes, “Despite Opposition, Might the Web Need New Government Jolt?,” *Wall Street Journal*, B1 (Feb. 14, 2005).
5. The White House, *A New Generation of American Innovation* (April 2004), http://www.whitehouse.gov/infocus/technology/economic_policy200404/innovation.pdf.
6. *Id.* at 11.
7. The White House, *President Bush: High Tech Improving Economy, Health Care, Education* (June 24, 2004), <http://www.whitehouse.gov/news/releases/2004/06/20040624-7.html>.
8. Asst. Secretary of Commerce for Communications and Information Michael D. Gallagher, “Bucks for Broadband Summit,” http://www.ntia.doc.gov/ntiahome/speeches/2005/KY_01122005.ppt, (Jan. 12, 2005) at 20.
9. National Telecommunications and Information Administration, U.S. Dept. of Commerce, *Public Telecommunications Facilities Program Federal Funding Opportunity FY2005*, http://www.ntia.doc.gov/ptfp/attachments/FFO_Notice_05.htm#DLAN (Jan. 25, 2005).
10. Amendment of Part 15 Regarding New Requirements and Measurement Guidelines for Access over Power Line, ET Docket No. 04-37 & In the Matter Regarding Carrier Current Systems, including Broadband over Power Line Systems, ET Docket No. 03-104, Report and Order (rel. Oct. 28, 2004); Donny Jackson, “FCC OKs rules for BPL Technology,” *Telephony* (Feb. 13, 2004) (quoting Powell). In voting to adopt the BPL rules, Chairman Powell stated that “[t]he potential for the American economy is too great—is too enormous, is too potentially groundbreaking—to sit idly by and allow any claim or any possible speculative fear to keep us from trying to drive this technology and drive America into the broadband future.” Donny Jackson, “FCC adopts rules for broadband over power line,” *Telephony* (Oct. 14, 2004).
11. *A New Generation of American Innovation*, *supra* note 1, at 12.
12. See, e.g., Organization for Economic Cooperation and Development, Directorate for Science Technology and Industry, *Towards a Knowledge-Based Economy—Recent Trends and Policy Directions from the OECD*, Background Paper for the OECD-IPS Workshop on Promoting Knowledge-Based Economies in Asia, p. 3 (2002); Jeremy Grace, Charles Kenney and Christine Zhen-Wei Qiang, *Information and Communications Technologies and Broad-Based Development: A Partial Review of the Evidence*, World Bank Working Paper No. 12 (2004); Robert Crandall and Charles Jackson, *The \$500 Billion Opportunity: The Potential Economic Benefit of Widespread Diffusion of Broadband Internet Access*, in Allan L. Shampine (ed) *Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies*, Nova Science Press, Hauppauge, NY (2003).
13. *A New Generation of American Innovation* at 8.
14. *Supra* note 7.
15. Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al., CC Docket Nos. 01-338, 96-98, and 98-147, Report and Order, FCC 03-36 (rel. Aug. 21, 2003) (“FCC Local Competition Order”) at paras. 227, 275. As discussed below, the FCC used the fact of municipal deployment to justify the deregulation of fiber investment by incumbents like BellSouth and Verizon.
16. One industry commenter stated that “it is totally absurd to suggest this [BellSouth plan] is service equivalence to any fiber-to-the-home build I know.” Dave Burstein, *DSL Prime* (Dec. 23, 2003), www.dslprime.com
17. BellSouth, “BellSouth 2004 Analyst Briefing,” (Dec. 6, 2004) at 13 (noting plans to deploy of “150-200k fiber to the curb homes annually”), 11 (stating that BellSouth network passes 16.3 million households).
18. Dave Burstein, *DSL Prime* (Oct. 22, 2004), www.dslprime.com.
19. Will Rodgers, “Verizon DSL Marketing

- Outpaces Availability,” Tampa Tribune (Jan. 11, 2005) (“For some Tampa Bay residents, Verizon Communications’ offer for high-speed Internet service is ringing hollow.”)
20. International Telecommunications Union, ITU Internet Reports 2004: The Portable Internet (2004).
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 22. George S. Ford, Does Municipal Supply of Communications Crowd-Out Private Communications Investment? An Empirical Study, Applied Economic Studies Manuscript (2005).
 23. Fred O. Williams, “Urban Wi-Fi ‘hot spots’ criticized in report,” Buffalo (N.Y.) News (Feb. 4, 2005).
 24. BellSouth Financial and Operational Results, 4Q04 and FY2004 (Jan. 25, 2005), http://www.bellsouth.com/investor/pdf/4q04p_slides.pdf at 12.
 25. The Wall Street Journal has quoted SBC’s Chief Executive Office, Ed Whitacre, as regarding BellSouth to be a “very good partner.” Almar Latour, “Meet the New TV Guy,” Wall Street Journal (Nov. 23, 2004).
 26. Shawn Young and Jesse Drucker, “Telecom Mergers Limit Choice of Customers?,” Wall Street Journal, B1 (Feb. 4, 2005).
 27. In the matter of Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation, WT Docket No. 04-70, Memorandum Opinion and Order, FCC 04-255 (rel. Oct. 26, 2004) at paras 237, 245.
 28. See, e.g., Comments of BellSouth Communications, Inc., FCCWC Docket No. 04-313 (Oct. 5, 2004) (attaching maps); Letter from Evan T. Leo, Kellogg, Huber, Hansen, Todd & Evans, P.L.L.C., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (Oct. 4, 2004) (joint submission of BellSouth, Verizon, SBC and Qwest attaching list and location of competitive networks).
 29. See, e.g., New Networks Institute, “How the Bells Stole America’s Digital Future”, <http://www.netaction.org/broadband/bells/bells.pdf>, Table 1 (comparing Bell company promises of advanced networks that cover for 44 million households by 2000 to actual deployment in 2000 to only 500,000 households).



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