

Get Your Community Ready for Business Now

Broadband, along with good zoning and building design, can revitalize a town

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“The role of government is to expand opportunities for entrepreneurs.”

Thomas Dorr, Undersecretary for Rural Development, USDA

Why spend public money on broadband? Thomas Dorr of the Department of Agriculture knew exactly why when he said, “A modern technology footprint will greatly increase opportunities for small and rural communities. Dorr’s statement gets to the heart of the justification for local, state, and national investments in broadband – business and economic growth. Communities are no longer competing with neighboring towns and counties; they are competing with other countries. States are no longer competing for business with the adjacent state; the competition includes provinces and prefectures half a world away. Manufacturing, distribution, and sales are global efforts (or should be) for virtually all businesses large and small in the United States.

Affordable broadband is unleashing a wave of Knowledge Economy entrepreneurial zeal powered by new services like Voice over IP (VoIP) that give businesses the opportunity to cut costs while doing a better job of taking care of customers.

As just one example, a recent CNN news story (www.cnn.com/2005/TECH/internet/04/13/new.telephony.ap/index.html) described how California-based Datawind CEO Suneet Tuli cut his \$800 per month telephone bill by an eye-popping 80 percent with a switch to VoIP. Even more interesting, Datawind now has local telephone numbers in New York, London, and Mexico City – a once unimaginable luxury made commonplace by VoIP. Datawind customers in those cities now call the com-

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pany using a local number, instead of having to place expensive international calls. And the phone rings wherever Tuli or other company employees happen to be in the world.

It is easy to see that communities that cannot offer local businesses a marketplace of affordable broadband services are at a disadvantage.

A *New York Times* report on small Midwest towns and their economic development strategies found that the new microbusiness entrepreneur is making relocation decisions based on family needs rather than on business needs. Factors include quality of life, recreation opportunities, school quality, and traditional neighborhood designs rather than sterile subdivisions.

This is a fundamental shift with profound implications for the economic development strategies of a community or region. The typical profile of a microbusiness is a well paid self-employed professional working out of the home. A microbusiness usually has just one or two employees. Business parks and business incubator buildings are less important, and neighborhood design becomes paramount. To say it bluntly, residential neighborhoods are now one of the community business districts of the Knowl-

edge Economy. Some economists predict that by 2030 as much as 30 to 40 percent of the workforce may be working out of the home.

Reap the Economic Benefits

Communities that provide a common, open-access digital transport system derive significant economic development benefits:

- The cost of services will decrease over time, freeing business capital for reinvestment in the core business rather than supporting administrative overhead.
- Affordable broadband, widely available in a community, enables new forms of businesses like microenterprises, which can bring new jobs to the area.
- Communities that leverage affordable broadband with a good quality of life are more likely to be successful attracting businesses that are relocating.

Government and Entrepreneurship

Local government has a key role to play in unleashing the economic development power of entrepreneurs and small businesses. Chief among them is to ensure community-wide availability of affordable broadband, because these new-economy businesses cannot exist without it. Local elected and appointed

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officials that sit back and allow the incumbent “big company” DSL and cable broadband providers to determine the future of the community do so at great risk of consigning the community to a dismal future. Traditional economic development strategies that ignore the importance of broadband as essential public infrastructure are missing much of the growth in the jobs market and are choking off the future prosperity of the community.

New Employment Patterns

From 1997 to 2001, the number of American microbusinesses increased 16 percent, and even more dramatic data has been published by the U.S. Department of Labor. In 1991, self-employment accounted for 5.4 percent of job growth in the Household Jobs Survey. In 2003, self-employed jobs provided 31 percent of growth. Both years were during economic downturns.

Too many local governments are still chasing wage-earner jobs brought in to a community by a company relocating from another region. As the economy has globalized, many of these jobs have moved offshore permanently, and so the competition for the remaining jobs has become much more savage. That strategy also ignores the twenty-year trend that has consistently shown that most job growth (75 to 90 percent, depending upon whom you ask) is coming from small businesses of 25 employees or less. Many of these businesses are entrepreneurial in nature, and rely on the Internet to sell to a global marketplace.

Blacksburg, Virginia, where broadband has been widely available since the early 1990s, has successfully created a second economy in what was in 1993 a college town. I was director of the Blacksburg Electronic Village for nearly a decade, beginning with the project's start in 1993. Blacksburg has been widely hailed as the most wired com-

munity in the world, with more than 87 percent of the residents online by late 1999. Blacksburg broke new ground in many areas, with the first community-wide broadband network in the world, the first residential broadband, and the first K-12 schools to have broadband in every classroom.

There were few employment opportunities outside the university, which had about 2,000 faculty and staff in 1993. Thanks to affordable broadband in homes, apartments, and the local business park, Blacksburg now has more than 100 high tech businesses employing about 2,200. The business park has consistently ranked one of the ten fastest-growing in the country. Virtually all of those businesses were entrepreneurial startups.

Business Districts of the Future

Affordable broadband is making residential neighborhoods into business districts and creating new opportunities to revitalize former retail-oriented downtowns into havens for startups. But communities must be proactive in supporting these new kinds of enterprises. There are real advantages to work-at-home businesses – every businessperson working out of the home takes a car off local roads at rush hour. Imagine if heavily traveled commuter routes had 20 percent of their cars removed during rush hours? It would

completely change the way communities need to spend transportation dollars.

Entrepreneurial businesses have specific requirements:

- Zoning and business licensing requirements must be business friendly. Some communities use ordinances and business taxes to discourage working at home.
- Downtown retail spaces can be successfully rehabbed as professional office space but local officials have to take the time to understand the needs of entrepreneurs. As an example, when sidewalks and street lamps are replaced on Main Street, telecom duct and fiber should be run to every building.
- Entrepreneurial businesses need convenient access to high quality professional services in the community, including copy services, legal services, accounting, printing, and temp services (see box).
- Affordable broadband throughout the community is a minimum requirement.
- Microbusiness owners need homes amenable to home offices. In new neighborhoods, the community should work with builders to ensure that homes are built specifically for home office use. Too many builders think a spare bedroom qualifies, but a home designed for an office will have a room at the front of the house, away from bedrooms and other private living areas, ideally with a separate entrance.
- Homes, new commercial spaces, and rehabbed office spaces need structured wiring, including Category 5e Ethernet cabling throughout. Inexpensive wireless networks are inherently insecure, and businesses do not want to expose their business data to wireless snooping.

What is Broadband?

There is much confusion about broadband. Different industry groups, the

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Is Your Community “Open for Business” to Entrepreneurs?

Here's what you need:

- **World Class Office Space.** Visit a successful office park to see what works. (Hint: it's the amenities.) The steel-sided warehouse out by the interstate won't do it. Rehab a downtown building for upscale small office spaces to get people downtown again.
- **Great Coffee.** A great coffee shop, with an upscale ambiance and a private meeting room, is a key requirement of work-at-home businesspeople. They need a place to meet clients, have a light lunch, or just “get out of the office” to do some work.
- **A Hot Breakfast.** Communities need a clean, well-lit place to get a quick, hot breakfast. Businesspeople travel, and not everyone wants to eat donuts and biscuits at the free breakfast buffet at the local motel. A lot of business gets done at breakfast, and the buffet room in the motel is not conducive to that.
- **Lunch and Dinner.** Business lunches and dinners are also important. Clients do come to the community to visit businesspeople, and that means the community needs an upscale restaurant for more formal business lunches and dinners. Just one good restaurant in a community makes all the difference to businesspeople.
- **The Right Newspapers.** Business visitors want more news than one can get out of the local paper. *The Wall Street Journal*, *USA Today*, and at least one “big city” paper should be available in easy-to-find locations, like the coffee shop or the breakfast eatery.
- **Copy Services.** Copying and printing services are the lifeblood of “just in time” Knowledge Economy businesses. Being able to walk into a Kinko's and get things printed right from a CD or a laptop is invaluable. Does your community have a local copying/printing store that offers these services and is easy to find?
- **Wi-Fi Public Hotspot.** Public Wi-Fi access is critical. Visiting businesspeople want to be able to check their email, catch up on news from the Web, and take care of business via the Internet. Can a visitor easily find a hotspot in your community? Is there a place to sit down and work?
- **A Good Place to Stay.** A B&B is fine if the town is too small to support a hotel, but the B&B owners need to know about the needs of businesspeople. Rooms should have a phone (for privacy and dialup Internet access). A desk is essential. Too few B&B rooms have a place to sit and work.
- **Affordable Broadband.** This is easy and inexpensive to do. The library can be a great partner, as people who do not have access at home can visit the library to check their email. Shouldn't everyone have an address in cyberspace?
- **A Community Web Portal.** A great community Web portal with up-to-date local news and information (where to eat, where to find a hotspot, where to find copy services, where to buy a newspaper) is a vital economic development tool. It telegraphs to businesspeople that the community is progressive and “connected.”

Federal government, and network vendors all have definitions that tend to support a particular point of view. But there is growing support for a definition of broadband that looks (conservatively) at future needs, rather than past policy decisions (the Federal Communications Commission) or current customer demand (DSL and cable modem service providers).

The target for residential and small business broadband should support a sustained throughput of 50-75 Mbps, with 2x burst capacity (100-155 Mbps).

This definition is well aligned with broadband networks already deployed and in advanced design stages in other countries. South Korea has set a national goal to deliver 155 Mbps to every home

and business in the country. City Telecom in Hong Kong is running fiber-based Gigabit Ethernet to more than a million apartments. Telstra, the Australian telephone company, announced last year that it will deploy only fiber connections to customers (no more copper-based systems). Ireland has been constructing a countrywide fiber ring that connects 123 towns and cities.

Summary

Across the United States, there are already some communities taking the initiative to change their economic development strategies to meet the needs of these new kinds of businesses. Communities that ignore the changing demands of Knowledge Economy businesses face the same disadvantages that some communities faced thirty or forty years ago when they failed to get an exit on the interstate highway. The good news is that any community can afford to invest in an open access broadband infrastructure.

Just as communities took on services like road building, water, and electricity generation, they must now regard an open access digital transport system as essential public infrastructure. Like roads, the private sector will use the digital system to deliver goods and services to businesses and residents in the community. And like roads, the communities that have these digital transport systems will prosper. ♦

About the Author

Dr. Cobill is an information architect and President of Design Nine, Inc. The firm provides telecommunications master planning for greenfield residential development projects and existing communities. Cobill served four years on the Board of Directors of the Association For Community Networks (AFCN), and completed two terms as President of the AFCN. He has served on the Board of Directors of the Rural Telecommunications Congress, and was co-chair of the Governor's Task Force on eCommunities for Virginia. In the eighties, he worked for AT&T and Bell Labs. He has published numerous papers and articles, and has made hundreds of presentations on broadband infrastructure and community network design. He is an author and coeditor of Community Networks: Lessons Learned from Blacksburg, Virginia. More information about Cobill is available at www.designnine.com.