

BATTLE CREEK DOWNTOWN TRANSFORMATION

Economic Development Case Study Battle Creek Bandwidth Bountiful for Businesses

“Case study summary: This case study presents an economic development solution to install and offer a high-tech fiber optic network to businesses and organizations. Many communities and companies are acting now to provide more technology access and Internet speed. Visionaries understand these resources are necessary to ensure strong, Internet connectivity. Speed of access determines whether your community is thriving or a laggard in today’s technology and industry. The City of Battle Creek and its economic development group Battle Creek Unlimited saw the necessity for connectivity and planned accordingly. Now the city is offering its technology and network to existing and new businesses looking for a robust location for growth. For this historic food production town, the next generations of businesses rely on fiber optic networks which enable fast access to the world through the Internet.”

Technology access, connectivity and speed have emerged as three of the most important considerations for businesses in the 21st century.

That is why Google plans to provide as many as 500,000 people in a limited number of locales with fiber-optic Internet connections capable of one gigabit per second (Gbps), more than 100 times faster than the typical U.S. broadband connection speed today.

With businesses and homes sending and receiving large data files, the bandwidth that allows those files to travel back and forth becomes even more critical. But it’s certainly not inexpensive, as Verizon could tell you after investing \$23 billion in fiber infrastructure for its 100-Mbps Fios network, which reaches only 18 million people in the U.S.

The goal of everyone in the United States connected to a high speed network is a laudable one. But it is years – and billions of dollars – away from realization.

Looking ahead, anticipating opportunities

Visionaries looking to build an economy for the 21st century know that of all the resources necessary to ensure success, Internet connectivity and speed of access determines whether your community is thriving or a laggard in today’s technology and industry. It’s similar to the internal combustion engine providing transportation that was previously delivered via horseback. What was once perfectly acceptable quickly became slow, out of fashion and a competitive differentiator. But it also provided opportunities during what proved to be a transformative time for those seeking to leverage emerging technologies.

The United States, long considered a global leader in technology, has fallen compared to global competitors and, in some cases, has been leapfrogged by countries making aggressive investments in new technology.

Technical Specifications

- There are 25 route miles of fiber optic cable in the city of Battle Creek.
- Each fiber sheath consists of 48, 72, 96 or 144 individual fibers, depending on where it’s located in the network.
- One gigabit per second access speed is more than 100 times faster than what most Americans have access to today.

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Currently the United States has the 12th fastest broadband in the world and ranks 15th in Internet penetration, according to The Organization for Economic Cooperation & Development.

Why does access speed matter? Why is it an important metric for communities and the companies deciding where to locate their businesses?

Because speed rules.

Everyone benefits from fast Internet connections. Consider Internet applications that allow a doctor to remotely review electronic medical records or allow students to take lessons via distance learning programs. Worldwide organizations can work together virtually using Internet tools, email and technology applications. At home, people can download movies fresh out of the theaters.

"The emergence of global communications is requiring communities to update their connectivity utilities. Some would argue that an advanced telecommunications infrastructure is as important as modern municipal water and sewer."

Jim Hettinger former President and CEO of Battle Creek Unlimited

Battle Creek, Michigan – Blazing a Trail in Internet Connectivity



Leadership in Battle Creek saw the necessity for connectivity and planned accordingly. Economic development leaders didn't want to wait for corporations to launch the process, so it chose to take action and do it itself.

In 2002, a robust underground conduit system to carry fiber optic strands was built connecting downtown Battle Creek with its Fort Custer Industrial Park, on the west part of town. An agreement between the city's economic development arm, Battle Creek Unlimited (BCU), and a locally based service provider, CTS Telecom, arranged for 30 dedicated fiber optic strands for its own use. Economic developers acquired six dedicated strands and a portion of the bandwidth for public education, nonprofit and other governmental uses. The remaining bandwidth allows for private sector opportunities.

In retrospect, this prescient decision has made possible the expansion of existing businesses and helped create an environment that not only welcomes new businesses, but makes an offer that is difficult to refuse.

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Connectivity not just an aspiration, a reality

Local companies such as Kellogg Corporation have all benefited from the speedy access times that range up to 40 gigs – equivalent to 40,000 times what a T1 line can provide.

Stephen Jessup, principal of the Jessup Group, is a Battle Creek native who did a great deal of travel to New York and other large cities for his healthcare accounting business. He eventually realized that Internet access availability – and the relative cost of access – made Battle Creek an attractive base from which to conduct business.

“People accessing information from the cloud don’t care where that data is stored or coming from. They just want instant access to it,” said Jessup. “The availability of high-speed optic fiber has allowed me to leverage the technology and start new businesses. Battle Creek had the infrastructure in place and the incentives to make it happen.”

Indeed the fiber optics and its connection speed have helped attract other businesses that, like The Jessup Group, find that access to high-speed fiber means location isn’t the differentiator – it’s access to the network that matters most.

That was the rationale for investing in communication infrastructure when many communities weren’t even considering the implications. If it was the foresight in the 19th century to create policies that led to the development of the rail system and the 20th century visionaries who saw the potential for a national highway system, then the thought leaders laying the groundwork for high-speed Internet access must surely be considered as important and ground breaking.

That’s why Google understands the need for speed. Accessing information and sharing files with users throughout the world help keep businesses thriving in a global economy. It makes the community more desirable to live in and ensures it continues to thrive in the 21st century.

Battle Creek is a medium-sized city with a big heart – and the big pipes needed to share communication with anyone, anywhere.

Battle Creek was initially established because of the value provided by the river, which provided the energy needed to power the mills that ground the locally harvested grains. That led to the establishment of the modern cereal industry, which has nourished generations through the familiar brands of Kellogg’s, Ralston and Post.

Today, Battle Creek is the chosen American home for many global companies, including 23 from Europe and Asia -- such as Japan-based Denso, global supplier of automotive technology, systems and components, Toda America, a manufacturer of lithium-ion battery materials for the next generation of electric vehicles, and Musashi Auto Parts, a manufacturer of sophisticated automotive components such as transmission gears and camshafts. German-based

“I serve customers throughout the country in real-time, exchanging what are often large, complex data sets. The infrastructure doesn’t exist everywhere to conduct business in that fashion - but it does in Battle Creek.”

*Stephen Jessup,
The Jessup Group*

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Rösler Metal Finishing USA is getting ready to complete a 100,000 sq. ft. expansion of its North American headquarters and manufacturing facility.

The city is still the proud home to the global headquarters of the Kellogg Corporation and its renowned characters Snap, Crackle and Pop and Tony the Tiger as well as hundreds of other American businesses.

The one thing all of these companies have in common is the importance of sharing information with collaborators in locations that aren't limited to nearby cities, regions or even continents.

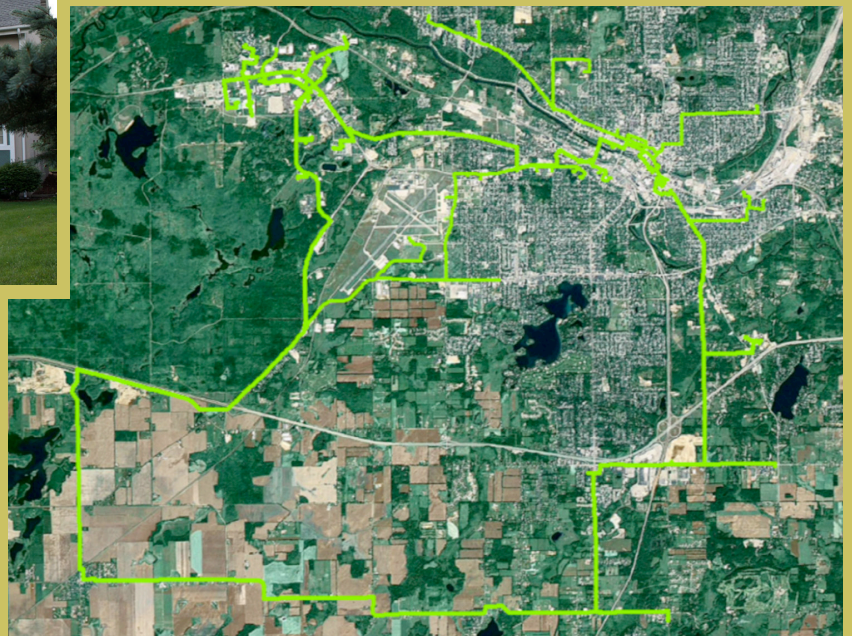
The next generations of businesses rely not on access to rivers and railroads - but to the fiber optic network which allows fast access to the world through the Internet.

"Battle Creek really gets it. They were on the cutting edge of Internet access before other communities realized its importance. They've set the groundwork, now businesses are taking advantage of what they have to offer here."

*Jim Burnham,
CTS Telecom*



The Historic Sullivan Barn sits on the fiber optic network, providing several small technology companies T1 cable service and high speed data communication. Six companies moved to this location for the benefit of connectivity. Tenants include the Jessup Group and software creation company GLMI. The historic barn is located near downtown Battle Creek at the confluence of the Kalamazoo and Battle Creek Rivers. The project was in a tax-free Renaissance Zone and the architect was successful in achieving a National Historic Building designation for the barn providing tax incentives for its development.



"Battle Creek's fiber optic network loops around the city. (Shown on this map by the highlighted lines.) The network accommodates Kellogg Corporation and technology companies in the downtown district to manufacturing facilities on the outer edge of town."