

The Internet, like electricity, oil, and steam before it, is now driving today's economic revolution.

While a city government itself, cannot legislate or produce economic success in a community, or create innovation, it can support the individuals and enterprises within its community by investing in the single most important infrastructure needed for today's economy. To ensure continued leadership, this city should invest in the most powerful networked capabilities available, fiber optic Internet cables and switches. Because nothing beats the speed of light.

You can have Fiber Internet and gigabit speeds — but you'll have to work for it! But if you do, the fiber network will bring revenue back to the city, make Davis a better place for schools, businesses, and neighbors, and will be able to plan for and meet future telecommunications needs. We can use public utility powers to create a gigabit Internet network in Davis, better than & before any giant corporation will.

Your internet is slow, bandwidth is capped, and exorbitantly expensive. But there are people in the USA using gigabit Internet in their homes. Some were lucky enough to get Google Fiber, but others worked together to start a community gigabit fiber network. According to the Community Broadband Map at muninetworks.org, as of Jan 2015 are "over 40 communities in 13 states with a publicly owned network offering at least 1 Gigabit services."

What is community fiber?

You might have heard it called municipal fiber, or community broadband. It's a form of Internet infrastructure that supports innovation, safeguards your privacy, encourages service competition, and keeps you from suffering from slow downloads and uploads. We've [collected](#) a number of relevant documents and web pages that explain where community fiber is already operating, and some of the things people have done when served by it. DavisGIG is a public private partnership model to create Internet infrastructure for a modern city, and see the businesses, students, and prestige that follows.

Davis can have community-owned fiber optic telecommunications as a way of bringing next-generation, gigabit, Internet access. Just like the jump from dialup to DSL/Cable Broadband in 2000, it's time to do it again. Cities around the country are putting in their own fiber optic, and Davis has the capability to roll its own, new and successful model, of delivering Internet, phone or TV. DavisGIG will be a brand new, state of the art, community-owned and operated, telecommunications network. The Community would own it, a local nonprofit (or cooperative) representing community stakeholders would oversee its install, manage it well, and plan orderly expansion. DavisGIG will lease access to private Internet companies who would provide gigabit Internet Access, phone, or TV services on the community owned fibers.

Community fiber optic cabling will connect to all homes, apartment complexes, businesses, and schools in Davis. Deployed to all neighborhoods, community fiber addresses digital divide issues and will securely and privately connect the entire city. The DavisGIG network will be,

private and secure, city-wide Local Area Network (LAN), or more appropriately, Metropolitan Area Network (MAN). For the next 50+ years, no matter what happens on the outside Internet, and independent of citizens purchasing access to the larger 'Net, homes, businesses, schools, will be transferring data at gigabit speeds to other homes, businesses, schools, and UC Davis.

More Internet provider choices will be available, when we are no longer bound to monopoly-controlled copper phone and cable lines. Instead, we will have our own telecommunications plant and switching between private companies by consumers will be an easy software change.

Much like the copper networks installed 100 years ago, fiber networks will be used for decades to come. With the adoption of fiber optic networks, Davis will remain a leader in science, technology and quality of life. Having the fibers owned by the community, and not one particular business, will be a defining and clear reason for business to locate in Davis.

Removing the physical infrastructure component (the cables, and network electronics) from the control of the traditional Internet Provider, and leasing access to the infrastructure back to those companies gives the citizens as consumers enormous advantage in the marketplace, and it gives the city a revenue stream. Entrepreneurs will stay here when they know their workforce can get gigabit to the world from multiple providers, while their home and business will always be connected together on the community network. Businesses get buried, problem free, tele-communication between residence and business, provided on the local, city-owned, fiber plant. Our success in this venture will be cited as an example of how the Internet and other services should be delivered, with the Internet reconceived as the important utility that it is.

Why is community fiber good for Davis?

You probably don't have high-speed Internet. According to a recent Yolo County survey, 61% of Davis doesn't have what the FCC qualifies as broadband access. This report was done before the FCC redefined broadband at 25 Mbps/4 Mbps up. Some 44% of our neighbors don't have fast enough connections to watch a YouTube video without buffering.

How much of your time is lost to buffering videos on YouTube and Netflix? How many times have your Skype calls dropped unexpectedly? Do you really need the added stress of data caps on your Internet?

The advantages of community fiber address this and more.

Just having the network installed will deliver permanent, fast, reliable, connections between our homes, schools, businesses, government, and UC Davis Campus. It forces big cable and telco competitors to lower their prices and provide a better service offering to compete. The network will address digital divide issues because some of the fees collected through the funding mechanism could provide a minimal level of service to the Internet, say 1 Mbps, to all nodes on

the network. Even without buying Gigabit speed access to the greater Internet through a participating private provider, we've networked the town. You'll be able to instantly move gigantic data sets between home and campus, do offsite data backups to our neighbors, direct video chatting and file sharing. Like the early Internet, the possibilities with this model are limited only by our imagination, and will drive innovation and productivity in our community.

Here is just a small selection of the benefits that are made possible through community fiber in Davis:

Best Internet. Truly unlimited, reliable and lightning-fast Internet service at prices that may match--or even beat--currently available triple play plans. Our community nonprofit manages the network and leases access to the network on behalf of the city and citizens to provide roaring speed Internet services over the network.

Business Development. When technology companies discover all the buildings in Davis, residential and commercial, have fiber optic capability, that will pull their interest, we make it on their list. When they discover the open access and community network aspects of our fiber optic, it will be the key decision point for location to our community.

Privacy. The Electronic Frontier Foundation's fourth annual "Who Has Your Back" report has made clear that major Internet providers in the US (including those in Davis) lag in privacy protections. A community fiber network will give you choices of providers who aren't basing their revenue (in part) on selling data about you.

Concomitant Benefit. Reduced maintenance costs, buried and reliable fiber cable, powered by light, means drastically reduced truck rolls. Horizontal boring in neighborhoods, for fiber conduit, can be timed jointly with resurfacing roads. Neighborhood fiber cabinets can become solar powered networked bus stops.

City. Cost recovery through regular and reasonable utility service fees to all home and business owners enjoying the fibers benefits, this pays back the investment. Plus, our city gets an asset, which it realizes revenues on, by leasing access to its fibers to the various retail ISPs you will purchase gigabit service from.

Choice. Your pick from a variety of internet, television, and phone options from multiple providers, all served from the City network. Easy to switch, because they all are virtually on the same physical network. As the city network is being built, our community network non-profit, contracts with these private companies to provide Internet access with our network.

Access. Fast Access Everywhere. When we connect all the homes and businesses, we can make sure everyone has at least basic level network access. The DavisGIG network increases the purchasing power of our citizens who get access to much faster speeds from the private providers leasing access to the network electronics and fiber-optic cables, but it also puts a floor

under the entire town, ensuring that no residents are left without some basic level of access to the 'Net.

Public accountability. Community fiber is made for you. When you have a concern, your voice matters. The city-owned network should be managed and operated by a community non-profit that you can join, and become a member of, Davis Community Network, (DCN). Want to make sure the network runs well?, join the DCN Technical Operations Committee. Having no quarterly profit target to hit, our community network can ensure smooth operation and responsible management. It will leverage the technical expertise of our community and institutional partners on its board and volunteer committees, provide transparent management, and will plan for the network's growth into other areas of the county.

Many of these things are impossible to implement with our aging networks, but community fiber will open the doors to this and so much more.

How can we bring community fiber to Davis?

It's going to take work, coordination, and a reasonable level of investment. We can't have that without you.

Davis was once a leader in Internet connectivity thanks to Davis Community Network. The efforts of this citizen-driven, non-profit organization brought internet access to Davis in 1993. As partners, we plan on leapfrogging Davis out of the "Copper Ages" and into the era of fiber optic networks that boast data speed approaching the speed of light. Several cities across the nation have already brought this dream to life through groups like us. There is only one thing missing: You. With your support we can make sure that Davis remains exceptional.

You can help.

This nascent effort is just underway and now is the time for community members to come forward and show support, visit www.davisgig.org. Join our network of neighbors working to make the next mark on Davis's legacy of exceptionalism.

This piece was created by Gary Darling, Todd Kaiser, Robert Nickerson, and Doug Walter. Four volunteers of the DavisGIG group and residents of Davis in various professions.