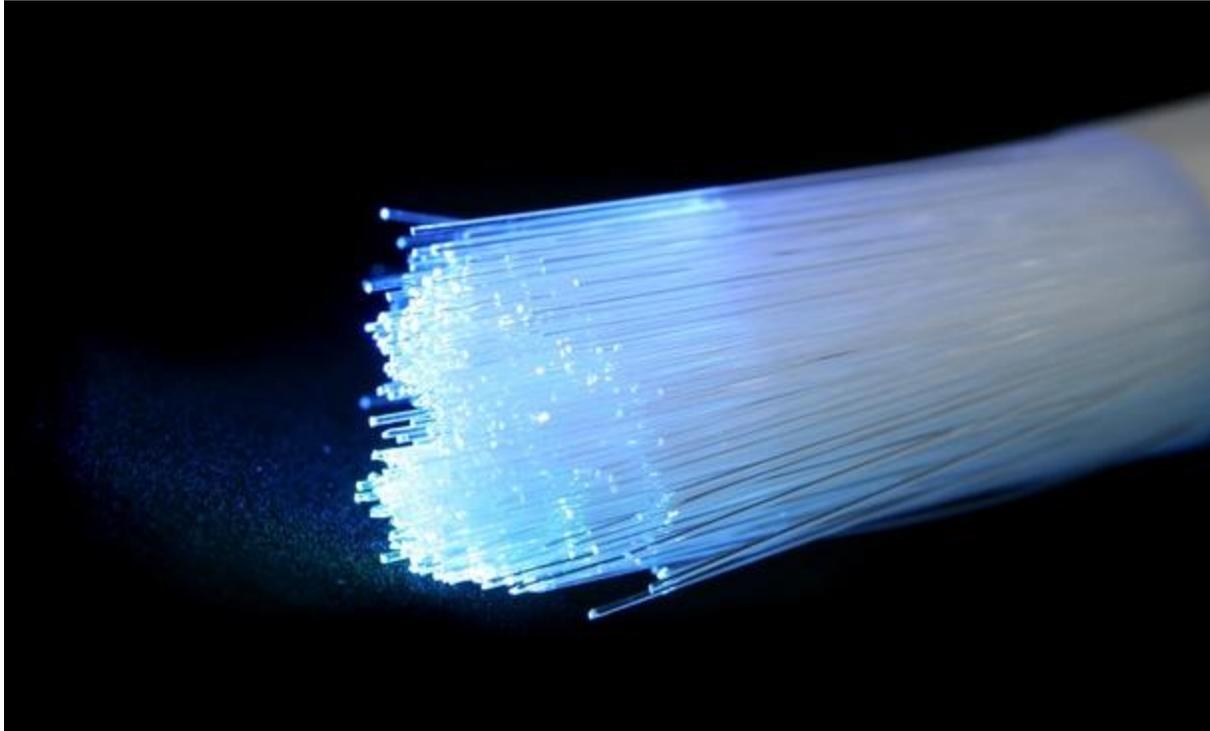




How One Man Built His City a Fiber Optic Network

NATE BERG, MAR 14, 2012



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Patrick Kennedy looked into the future, and he didn't like what he saw.

Kennedy is CEO of the software company [OSIsoft](#), and he worried that his data-rich business would be increasingly limited by the capacity of his city's telephone-style internet infrastructure. What seemed fast enough today would most certainly be far too slow five years down the line.

So Kennedy took action. He lobbied city officials in San Leandro, California, to make the switch from copper wires to higher-speed fiber optic cables. The city had already dug up its streets to lay down conduits to link up all its traffic lights; snaking some fiber optic cables through wouldn't be too much more work, he argued.

But money became too tight and the city moved on. So Kennedy decided to put the cable in himself.

Kennedy, a 35-year resident of San Leandro, sees more than an opportunity for his business. He's hoping to build a citywide loop of fiber optic cables, about 11 miles of it, to benefit the thriving industrial and manufacturing base. And, he argues, [Lit San Leandro](#) may even bring new businesses to the city.

San Leandro, across the bay from the traditional heart of Silicon Valley, has been part of the high-tech business boom in the area. But it could play a bigger role - especially with a higher-speed internet connection.

"I talked to the mayor a year ago," Kennedy says. "We've just got the first segment pulled, we're buying the fiber for the second segment and we'll have the rest of it pulled by June."

The cables will increase the speed of internet from about 1.5 megabits per second to 10 gigabits per second, or about 666 times faster than before. The prospect is tantalizing for companies that deal with large amounts of data, including medical services, design firms, imaging services, and data centers. The prospect of pulling these types of businesses into town is even more tantalizing for the city, which has leased Kennedy the space in their underground conduits.

Kennedy is paying to lease the space out of pocket. Businesses will soon be able to lease access to this network, vastly increasing their data capacity.

"The typical broadband effort for a city might cost in the hundreds of millions, because you really have to go out and dig up streets and trench down them and put in conduits," Kennedy says. Because the city already did the groundwork, all Kennedy had to do was buy the cable and lay it down. "My estimate is that I'll spend under \$5 million," he says. "Maybe \$3 million."

The city's conduits were one major benefit to bringing about the project. Also crucial is the city's location, right along the BART line. BART built its own fiber optic network along its 104 miles of right of way, and it leases access to raise revenue. By looping in, Kennedy will tap into long-haul data carriers and emerging fiber networks in other cities.

This project "could not have been done as a private or public project. It's only the public-private partnership that made this happen," Kennedy says. He encourages other cities that are thinking about making similar investments to tap into local business interests who may be able to share in the costs of what would also be a shared benefit for a wide array of businesses.

"We did some scenario discussions on potential clients that might need this level of connection, and frankly after about 30 different businesses we gave up because everybody does," says Kennedy.

And the city of San Leandro is also interested in making that case. They've been on board with the project and are helping to recruit new businesses to move to town and take advantage of the new network.

"Approximately one-quarter of our city is zoned commercial industrial," says Cynthia Battenberg, the city's business development manager. "We believe very strongly in keeping that commercial for the jobs it creates for our community."

She's expecting the fiber optic loop to bring new high tech businesses to town, but also to enhance those manufacturing and industry businesses that are already there. She calls it "a backbone to support manufacturing and business."

"There's a tremendous tech boom that's happening in pockets of the Bay Area," says Mayor Steve Cassidy. "We're laying the infrastructure, literally, for San Leandro to be able to tap into that."

The goal, though, is not to try to challenge Silicon Valley or other Bay Area job centers. Kennedy says that the real intent is to embrace San Leandro's industrial qualities and to create more capacity for emerging industries and high-tech manufacturers.

"We've always been an industrial city. We're not going to compete with Palo Alto or San Francisco for classy south of Market office spaces," Kennedy says. "But when all those incubators and innovators finally come up with an idea, they've got to build it. And frankly I don't think they want to build it in Malaysia. I think they want to build it in the U.S. under the protection of U.S intellectual property law."

He says he's already been in talks with a number of businesses that are interested in moving to town to take advantage of the fiber optic loop. When it's completed early this summer, it could dramatically improve the amount of business taking place in the city. It's not just a technical boost for businesses like his own, though. He sees the loop as an urban renewal project – albeit one buried beneath the ground.

"I am trying to build up the city," says Kennedy. "I'll basically have enough fiber in the ground to light up every business building in San Leandro."