

San Leandro: A Smart City Model

Project Overview

The San Leandro Smart City Initiative recognizes the critical role of government in developing and maintaining a healthy ecosystem in which its residents, businesses and visitors can thrive. Building on the Lit San Leandro public/private partnership that has created an existing and expanding 10-gigabit fiber optic network, San Leandro is poised to leverage that digital infrastructure to transform our City into a vibrant digital society.



San Leandro possesses the critical ingredients required for creating a model, sustainable and digitally connected City:

- Leaders who inspire the pursuits of economic, social and environmental sustainability;
- A city government, business leaders, and community residents who collaborate;
- A proven ability to leverage existing resources through innovation and technology to improve services and reduce costs; and
- Ongoing efforts to intentionally nurture an engaged and vibrant digital society that strengthens our social capital and stimulates digital inclusion.

The digital foundation we've laid to date includes:

- Development of a public/private partnership, called **Lit San Leandro (LSL)**, which has created an 11.5 mile, 288 strand, 10 gigabit fiber optic network to stimulate economic development and create jobs.
- An additional \$4.2 million investment by the **Economic Development Administration and the City of San Leandro** will add 7.5 miles to the LSL network in 2014.
- Over fifty businesses, co-working and incubator spaces in two cities (San Leandro and Berkeley) are now connected to the LSL network, totaling 2.8 million square feet (s.f.) of commercial building space.
- Connection to LSL has attracted hundreds of thousands of dollars of reinvestment into a former Dodge/Chrysler automotive plant to create a 350,000 s.f. technology center for advanced manufacturing, known as "The Gate". **The Gate** has leased over 50,000 square feet of new space since May, including leases to two 3D printer manufacturers.
- A City of San Leandro and LSL partnership with **U.S. Ignite**, a White House program with a mission to "ignite" the development and deployment of new apps with profound impact on how Americans work, live, learn and play. In a competition sponsored by Ignite's partner, **Mozilla Ignite**, the City's team took a first place prize in a gigabit fiber application: **Remote Process Control**.
- Recognition by regional and national media of the innovation represented by Lit San Leandro, resulting in articles and videos published by the **Wall Street Journal, San Francisco Business Times, Fortune** and **CBS News**. Lit San Leandro received a 2013 Real Estate Deal of the Year Award by the San Francisco Business Times in the category of "Infrastructure/Public-Private Partnerships".
- The hiring of the East Bay's first Chief Innovation Officer, funded through a public/private partnership to cultivate the creation of a thriving innovation and tech ecosystem.
- A visit by FCC Chairman Julius Genachowski following the announcement of his **Gigabit City Challenge**. The Chairman identified the critical need for more innovative public/private partnerships like Lit San Leandro to create the fiber optic highways that enable "innovators [to] develop next-generation applications that will drive economic growth and global competitiveness."
- Partnership with **OSIsoft** to install its **PI** software in all Municipal buildings, extracting data out of all building systems, organizing it and making it visually accessible as a major step toward increased building efficiencies and reduced energy usage.



Plans for the Future — A “Connected” City

The next phase of San Leandro’s Smart City Initiative is to add wired and wireless-to-the-fiber access points for all public sites. The proposal includes public schools, community centers, parks, libraries, hospitals and other public health agencies. With these connections in place, San Leandro will become a model for innovative technologies, yielding the following benefits:



Smart Building Applications for Businesses

Connection to the LSL fiber loop will enable applications that identify building inefficiencies and potential energy efficiencies and cost savings.

State-of-art Access for All Community Residents

San Leandro already has installed fiber optic connections to its libraries, providing critical connectivity for community residents who may not have it at home. Plans are now being developed to extend this system by providing wireless access in downtown San Leandro, several commercial districts, city parks, and community centers. By providing fast and free access in so many locations, The City of San Leandro is helping to bridge the digital divide and keep our community on the cusp of innovation.

Innovation in Education

With cutting edge broadband connections, schools and learning institutions can access resources that are otherwise out of reach. Distance learning technologies can bring students anywhere in the world and allow them to reach experts in any field. San Leandro’s Smart City Initiative would make it possible to connect every one of our public schools.

Increased Public Safety

Cameras posted in high-traffic and risky areas and connected to the fiber backbone can help reduce street crime and encourage more consumer spending in stores and restaurants, increasing economic development and local revenues. Strategic use of cameras can also help reduce vandalism and assist in apprehending criminals. Gunshot and aerosol detection enhancements can direct police to in-progress criminal activities. San Leandro also is exploring the possibility of connecting City networks to existing security systems at private businesses to ensure seamless access to data when time is of the essence.

Superior Traffic Control

San Leandro already has made use of a fiber optic backbone to monitor traffic patterns, maximize the efficiency of traffic signals, and review accident data to improve traffic safety. Expansion of this network will enable the City’s engineers to bring these efficiencies to even more areas in San Leandro.

Emergency Preparedness

By increasing the ability of the Police and Fire Departments to access data quickly and communicate with regional agencies and health facilities, San Leandro will be far better prepared to respond to an emergency or natural disaster. The Smart City initiative also includes the installation of a dedicated public safety Wi-Fi network to ensure that first responders are always connected.

Funding Request

San Leandro already has leveraged \$15 million in public and private funds to develop a fiber network and the first stages of the Smart City Initiative. To complete this vision, the City estimates that another \$5 million will be required. This funding will assist in the expansion of the underground fiber optic network, wireless communications and access points, cameras, networking equipment, and ongoing coordination between multiple agencies.

