
Primal Scream -- Hidden in Plain Sight -- By Chris Platzer -- 4/25/14

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Vallejo, strategically located at the convergence of the Sacramento, Napa River and San Pablo Bay with easy access to Highway 80 and the Southern Pacific Rail Road, should adopt a strategy for building a municipal fiber optic network that would serve the needs of the community.

15 years ago the City of Vallejo was awarded a grant for an intelligent traffic system that resulted in a vast network of fiber optic cables through out the City. Hidden in plain sight is a network of fiber that most cities would have to make an expensive investment in infrastructure to duplicate. Given the speed of light in fiber (186,000 mi/sec), a traveler would circumnavigate the equator approximately 7.5 times in one second. In one millisecond, light would travel the entire length of the fiber network in Vallejo several times in roughly a 100th of the time it takes you to blink your eyes, if you blink as fast as you can. (A millisecond is one thousandth of a second.)

With the completion of the fiber network in 2004, Vallejo has inadvertently created a Telecommunications Master Plan that might be seen as one of the most successful "dig once" policies in the United States. It is not merely the fact that fiber is already in the ground as much as the installation of conduit that allows additional fiber to be run to increase capacity. (90 percent of the cost of laying fiber is tearing up streets and sidewalks.)

The cost of building out the network can be paid for largely by savings generated by discontinuing expensive leased lines and a combination of grants for municipal fiber. The city should begin with a modest investment (\$500,000) to connect municipal facilities, the School District, Touro University, Solano Community College and CMA with city-owned fiber offering much higher capacity connections than previously available. The City would realize 100s of thousands in savings in the first year and ultimately in 100s of thousands if not millions in ongoing revenue.

The city should reinvest those savings and revenues to expand the network across the city. This approach would allow Vallejo to build a vast fiber optic network without issuing debt. The Plan should encourage the laying of plenty of extra fiber, so when high tech companies ask the City for access to its fiber, Vallejo can oblige.

As more businesses request access, i.e. Kaiser and the CHP call center, a city fiber network can develop various ways to meet these needs. It can lease dark fiber to businesses that want it, including other carriers that want to connect their customers. Vallejo could also aggregate the demand of multiple subscribers with needs between 100 Mbps and 10 Gbps in order to give discounted rates. Finally, the City could provide access to a number of low-income housing units in a pilot program.

Leasing fiber to other service providers and providing services to local businesses would result in millions in revenue for the City General fund. Businesses would be able to lower their costs by having high capacity connections, retaining and generating jobs in the community and keeping the office vacancy rate far below those of nearby communities.

The accumulated savings could fund many public amenities, including free WiFi through out the City. In addition to synchronizing all the traffic signals in the City, the addition of video cameras on the network would assist public safety, and drivers would have several ways of getting real-time parking information. The telecommunications services the City could make available (telephone, cable and broadband) to local residents and/or business would have a profoundly positive impact on the General Fund and do much to enhance Vallejo as a "digital" destination!

Note: All opinions expressed in the "Primal Scream" column are those of the writer and not necessarily those of the Vallejo Independent Bulletin.