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Guest Opinion

How Silicon Valley can use community input to bridge the big broadband gap

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Despite massive telecommunication investment in recent decades, many areas of Silicon Valley still have inadequate broadband services. This broadband gap denies many communities access to a critical tool of daily life in the 21st century, equal in importance to electricity, water and sanitation.

As the economic boom continues, the housing crisis forces more people to live in areas away from population centers. In doing so, they often give up access to reliable broadband connectivity because these areas are lower in priority for telecommunications companies due to the



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Joint Venture Silicon Valley's Community Broadband Initiative (CBI) is a coalition of residents, local governments and telecommunications companies to improve broadband connectivity in Northern California. CBI's goal is to pioneer a new partnership-driven model for financing, installing, and operating broadband networks and services.

poor return on investment. Recent hardware and software developments, however, will enable neighborhoods and communities to deploy and maintain their own broadband networks.

Community networks are not new. In the early 20th Century, residents of rural areas wanting telephone service would band together to buy parts and install lines. There are many examples of broadband networks built by rural collectives, often by people with a passion and technical understanding of the process.

In past years, the California Emerging Technology Fund has, along with the California Public Utilities Commission, created the California Advanced Services Fund. This funding source has brought high-speed fiber to rural areas of California, including Marin, Humboldt and Inyo counties.

However, connecting users in homes and businesses to that fiber — the so-called "last yard" connection — can be challenging due to construction costs. Wireless is often the most cost-effective way to make this connection.

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CBI is developing a "cookbook" approach for use by community broadband collectives. Using "recipes" based on open-source hardware and software and leveraging "ingredients" like unlicensed and shared spectrum solutions, these networks are designed to be both possible and affordable for small communities. CBI is currently developing these approaches via proposed trial deployments in Northern California, in cooperation with the County of San Mateo and other partners, focusing on economically-challenged communities where broadband gaps exist.

The County of San Mateo has made connectivity a priority and is exploring several technology solutions for last yard connections, including 5G, Wi-Fi, and CBI's approach. In a county where the digital divide stems from disparate issues such as geography and the economy, no "one size fits all" solution exists.

However, CBI's unique community-based solution offers low costs and installation time, with the added benefit that it can serve as a set of instructions for other small cities, towns, and unincorporated areas to create a network that is easily deployable, fiscally sound, flexible, scalable, and sustainable.

CBI's method relies on community partners to build and sustain these networks. It is not enough to simply provide access — we must also promote adoption. Our goal is to create networks that will inspire a sense of ownership and pride in the communities they serve. This is why our plan includes community meetings and training events with community partners. Residents who work on these projects develop transferable skills and build connections with corporate vendors that could lead to job opportunities.

CBI seeks public-private partnerships that will allow local community engagement and investment in conjunction with corporate investment. Our goal is to encourage dialog among local governments, businesses, residents, and academia to create workable solutions with tangible benefits to communities.

We urge more community partners, corporate sponsors and candidate projects to engage with us at jointventure.org/initiatives/civic-technology/community-broadband.

Mohammad Shakouri is the director of the Joint Venture Silicon Valley Community Broadband Initiative. Jon Walton is the chief information officer for San Mateo County.