CONTEXT

EBBC is focused on improving and equalizing access to Broadband in order to:

- Provide the best internet services possible to East Bay residents and businesses.
- Increase economic competitiveness, attract new businesses, and create new jobs.
- Improve access to public education, health, safety, and participation in government.
- Help build sustainable communities.

The East Bay Broadband Consortium (EBBC) (www.ebbroadband.org) is a regional initiative covering Alameda, Contra Costa, and Solano counties and is focused on improving Broadband (high-speed internet) deployment, access and adoption in the East Bay. EBBC has 41 formal organizational and institutional members and has been endorsed by 25 leadership organizations.

The EBBC Steering Committee is composed of the Contra Costa Economic Partnership, the East Bay Community Foundation, the East Bay Economic Development Alliance, and the Solano Economic Development Corporation.

EBBC is completing a three year grant from the California Public Utilities Commission (CPUC). EBBC took the first year to coordinate a community planning process that included four regional roundtables and an East Bay Broadband Summit. Based on this input, EBBC embraced a strategy with two key initiatives: 1) East Bay Broadband Infrastructure Initiative; and 2) East Bay Connects Digital Inclusion Campaign. This report discusses progress made in relation to each of these initiatives during the last two years.

I n 2013, to increase awareness and understanding of the state of residential, business, and public access to Broadband in the East Bay and promote improvements in Broadband infrastructure, EBBC created a Broadband Report Card, accessible at: www. bit.ly/broadbandreportcard.

Using carrier and CPUC data, the Report Card assessed service in the East Bay, evaluating:

- The three basic kinds of technology—copper/ fiber/wireline, fixed wireless, and mobile.
- The three types of service—residential, commercial/industrial, and mobile.

The report went on to produce a series of maps demonstrating speed of service and to grade cities on the quality of their residential wireline Broadband access, which acts as a good general measure of overall Broadband coverage.

Overall the East Bay scored a C grade— passing, but not nearly good enough—just meeting statewide averages for residential Broadband availability and core network infrastructure. Most cities in the East Bay had C or D grades. In particular, gaps exist in urban and rural coverage and adoption rates; there is room for improvement in mobile coverage, even in urban regions; and parts of the East Bay are seriously lagging behind on Broadband.

To communicate this situation widely and encourage appropriate action, EBBC created a PowerPoint and Video presentation—*Transforming the East Bay with a 21st Century Broadband Infrastructure*. The presentation is available at: www.bit.ly/EastBayBroadbandpresentation.

EBBC leaders delivered the presentation to Boards of Supervisors, City Councils, regional business associations, and community groups. Two years later, while the overall East Bay Broadband Infrastructure still remains a C, a lot of progress is being made.

The top scoring cities were:

Concord A-	Walnut Creek B+	Pleasant Hill B-	Berkeley C+

Broadband: attracting new businesses, creating new jobs

CITY INITIATIVES

A number of cities have undertaken projects to make advances in their Broadband infrastructure.

Brentwood identified a unique opportunity to implement a plan to become a gigabit city. Brentwood has a legacy of investment in and commitment to Broadband that made this possible—the city has been making modest investments to prepare for Broadband since 1999.

As a young city with a significant amount of new development, Brentwood has been able to incorporate Broadband plans ahead of time, getting infrastructure in place as development occurs. As trenches have been dug to install electricity and other necessary infrastructure, Brentwood required developers to invest as little as $1 per foot to place empty conduits to be used for future

Broadband fiber placement. Now Brentwood has well over 120 miles of conduit available.

Brentwood has established a partnership with Sonic.net to provide Broadband at the speed of a Gigabit per second download and upload. This is over 40 times the speed of the Broadband available in most other cities.

Thanks largely to its relatively small investment in conduit infrastructure, the City of Brentwood will be able to deliver ultra-high speed internet to over half of the city's homes and businesses, including all future new construction. More than 8,000 households will have the ability to receive phone and Gigabit internet service for as little as $40 a month (plus tax/equipment fees). The City will also provide lower speed copper service to those parts of the city that do not have conduit available.

Additionally, certain public facilities will connect to the gigabit Broadband network, which will save the city $15,000 in annual internet service costs.

When Brentwood started this journey, there was no template for how to be a Gigabit City.

One lesson other cities can take from Brentwood's work is the importance of updating building codes to require conduit to prepare for future needs. Also, in order to attract Broadband partnerships, cities will need to facilitate the network build out with support like expediting the permitting and inspection process for a third party provider during construction. By doing this, cities will make it possible to stay ahead of the curve and quickly respond to their community's Broadband needs.

San Leandro: In 2011 Dr. J. Patrick Kennedy, entrepreneur, business owner, and San Leandro resident, reached out to the City of San Leandro to propose a public-private partnership on Broadband more ambitious than any previously attempted in California. Dr. Kennedy invested over $3 million in creating a publicly available fiber optic loop, offering gigabit down and up load speeds, running throughout downtown San Leandro. Through a recent $2.1 million federal grant, the fiber network is now planned to expand by over 7.5 miles.

As anticipated, the Lit San Leandro project has driven new investments from tech

companies in the area. San Leandro now boasts the world's largest cluster of 3-D desktop printer companies, and a growing tech community.

Nearby cities have taken notice. In 2013, the Oakland City Council authorized the private firm, Light Up Oakland, to begin planning for implementation of a similar fiber optic network. Hayward is also considering this approach.

Benicia: In 2013 the City of Benicia issued a Request for Proposals (RFP) calling for proposals to deliver commercial-grade Broadband service to support the changing needs of their local business community. Currently the City is working with Lit San Leandro to finalize a plan to serve the Benicia Industrial Park as well as some nearby areas.

Vallejo: The City of Vallejo is on a similar path, working closely with Praxis Associates to identify various models for improving the quality and speed of their existing municipal Broadband network. They may issue an RFP in 2015 to complete the build out of their municipal Broadband Network, with support from their very active and engaged fiber advisory board.

Emeryville: Google's eCity Awards recognize cities with the strongest online business communities for their populations in each state. These cities' businesses are using the web to find new customers, connect with existing customers and fuel their local economies. In this year's eCity Awards, Google awarded Emeryville the status of California Digital Capital because of the extensive use of the web by Emeryville's business community.

San Ramon: At the Bishop Ranch office park, Broadband has contributed to the production of 35,000 high-wage jobs created in or relocated to San Ramon. Investing in high-speed internet has helped Bishop Ranch to achieve nearly 95% occupancy in their growing technology hub. In the last two years, GE Global Software announced the hiring of 400 engineers at Bishop Ranch; PG&E expanded their operations at Bishop Ranch, adding 700 new jobs; a new City Hall facility onsite is being developed; and there are plans to expand into retail and housing. Bishop Ranch demonstrates the point that investing in high-speed internet makes an important contribution to the creation of an environment of growth and opportunity.

SERVICE PROVIDER INITIATIVES

MAJOR BROADBAND PROVIDERS ARE ENGAGED IN UPGRADING BROADBAND INFRASTRUCTURE AND SERVICE IN THE EAST BAY.

AT&T has invested over $1 billion in its network in the East Bay over the past three years and continues making substantial investments in Broadband Infrastructure—both wireless and fiber infrastructure—and making significant improvements in coverage, download and upload speed, and quality of service.

Comcast: Some of the 2014 Comcast success stories include:

Provided infrastructure to support in-school learning for Oakland Unified School District. Comcast is committed to creating a continuum of connectivity that begins in the classroom with wired schools, follows the students to wired libraries, wired recreation centers, and wired after-school programs, and ends in wired homes when the day is done. According to John Krull, Information Technology Officer for Oakland Unified School District. "Our use of Comcast Business's technology and infrastructure is enabling us to create an equitable, supportable, customizable learning environment that empowers our students and our staff to drive the learning experience and ensure Oakland's schools are competitive with the best in the world."

Continued commitment to bridge the digital divide. Internet Essentials has connected more than 1.2 million low-income Americans, or 300,000 families, to the power of broadband Internet. This includes 35,205 in the State of California and more than 12,600 in the Oakland/San Francisco metro area. Comcast's Internet Essentials initiative is to ensure students have the access to the educational tools they need to succeed in their homes.

Major expansion of Comcast advanced network into Valley Business Park in Pleasanton, Calif. This expansion provided the manufacturing, biotech, educational and other businesses located in the park with access to a comprehensive portfolio of advanced communications services to help them improve productivity and connect from anywhere in the park. The high-speed fiber network provided the park with Internet speeds up to 10 Gbps, which is critical for the site's data intensive businesses.

Sonic: In 2014, Sonic built and launched large scale Gigabit Fiber Internet projects in 2 business parks in Santa Rosa and began engineering and construction on a Gigabit
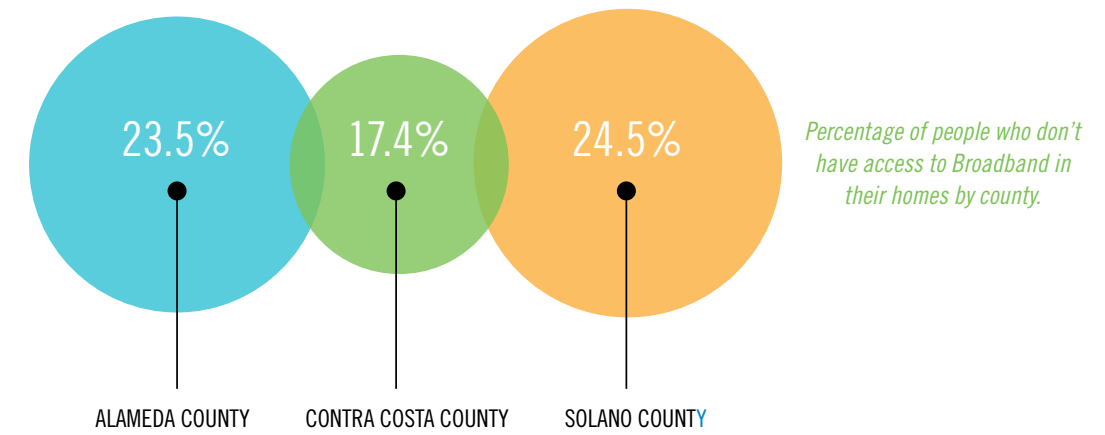
Fiber Internet project to serve more than 8,000 homes in the City of Brentwood.

Sonic built out new Central Offices and began offering services to homes and businesses in Benicia, Danville, Livermore, Moraga, Orinda, Pleasanton, and San Ramon, among others. This complements our services in existing East Bay locations, such as Albany, Berkeley, Fremont, Hayward, and Martinez. Sonic has deployed new technologies to increase speeds for customers on DSL lines. Sonic established partnerships with and provides services to the Oakland A's, Warriors and Raiders.
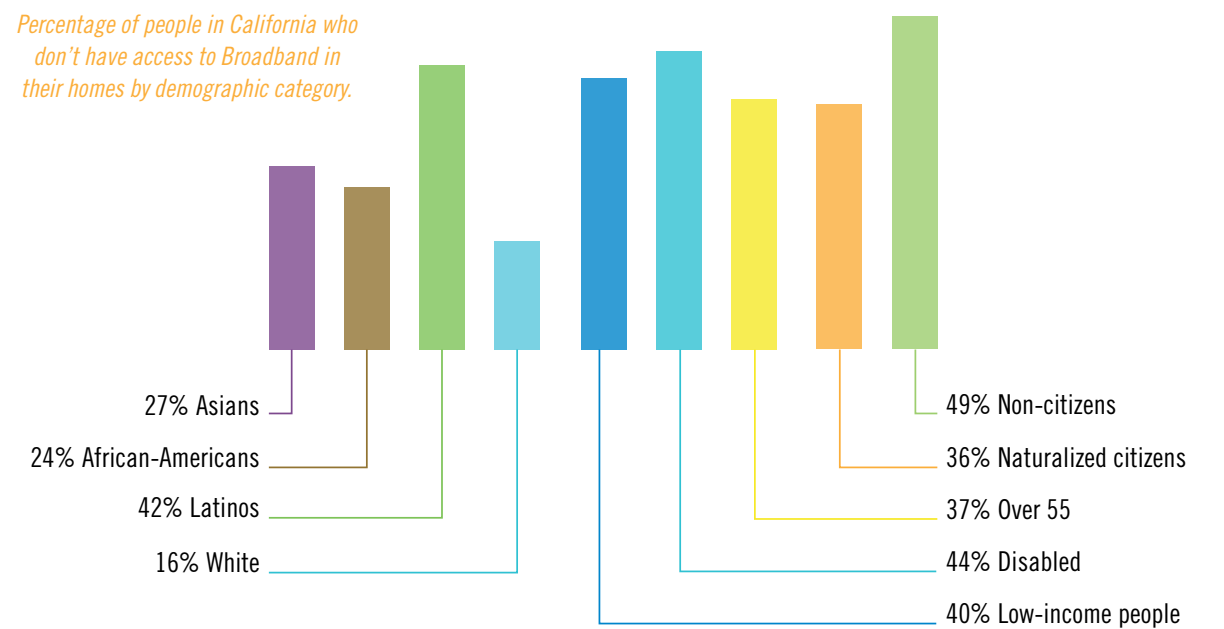
For 2015, Sonic is currently building Gigabit Fiber Internet projects in San Francisco, Petaluma, Sebastopol, Brentwood, and Novato, and is working on other projects that have not yet been announced. Sonic has again achieved a Perfect Privacy Score, as determined by the Electronic Frontier Foundation, the only Internet Service Provider in the country to do so.

THE DIGITAL DIVIDE IN THE EAST BAY

According the Public Policy Institute of California, more than 20% of the people in the East Bay don't have access to Broadband in their homes.

23.5%

17.4%

24.5%

Percentage of people who don't have access to Broadband in their homes by county.

ALAMEDA COUNTY

CONTRA COSTA COUNTY

SOLANO COUNTY

Percentage of people in California who don't have access to Broadband in their homes by demographic category.

27% Asians

24% African-Americans

42% Latinos

16% White

49% Non-citizens

36% Naturalized citizens

37% Over 55

44% Disabled

40% Low-income people

EMERYVILLE

OAKLAND

ALAMEDA

SAN LEANDRO

● 99% ● 70% ● 50%

Percentage of students who have Broadband and computers at home.

EAST BAY CONNECTS

To bridge this Digital Divide in the East Bay, EBBC has joined with OTX West, a leading computer refurbisher in the Bay Area, to establish East Bay Connects (www.eastbayconnects.com) and launch the East Bay Connects Digital Inclusion Campaign.

OTX West (www.otxwest.org) refurbishes computers donated by Alameda, Contra Costa, and San Francisco Counties and many other sources, making them better and more powerful than new. OTX West has installed over 20,000 computers in Oakland school classrooms, labs, and afterschool programs, and provided more than 15,000 home computers to Oakland families.

The East Bay Connects Campaign is organized to improve the lives and educational achievement of East Bay residents by:

- Connecting users to affordable Broadband in their homes, schools, and public venues.
- Helping move new users from digital literacy to digital mastery.

DIGITAL INCLUSION SOLUTION

To accomplish these objectives, EBBC and OTX West created the East Bay Connects Digital Inclusion Solution which provides the key elements necessary for effective Broadband adoption:

- Very affordable Broadband subscriptions (as low as $10 a month through Comcast's Internet Essentials or a program offered by Basic Internet).
- A free home computer with a monitor, peripherals, and a full suite of software (including computer security and parental controls) for new Broadband subscribers.
- Free digital literacy training.
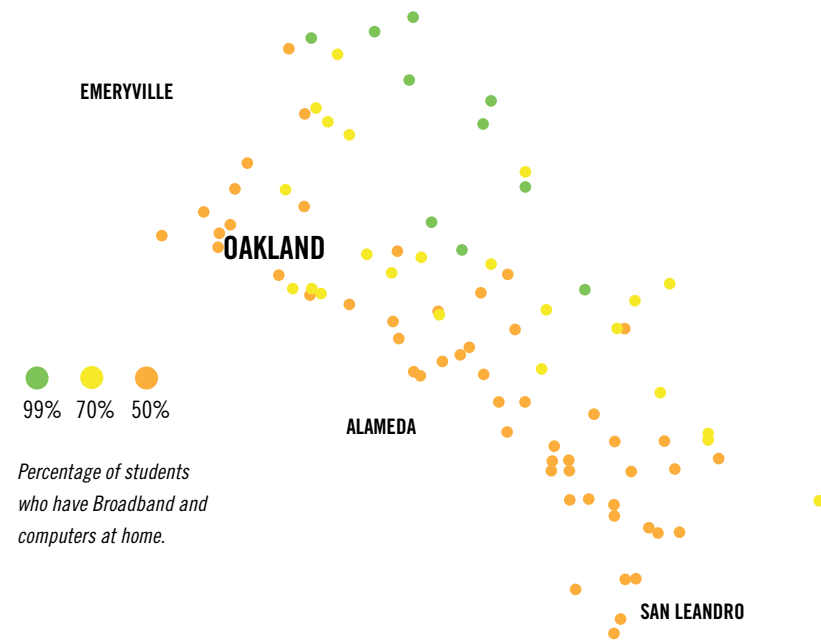- A year of free tech support.

East Bay Connects joined with the Stride Center to establish an East Bay Connects Contact Center that people can phone (866-460-7435) to receive assistance in subscribing to low cost Broadband and signing up for the Digital Inclusion Solution.

The Stride Center (www.stridecenter.org) provides a career development program to men and women who face barriers to

employment in the technology economy, including: technical skills, life skills, career skills training, technical certifications, and work experience through an affiliated social enterprise, ReliaTech, that delivers low cost technology tools and support to under-served communities.

To support the Digital Inclusion Solution, East Bay Connects has obtained a commitment to receive a substantial number of donated computers from Alameda and Contra Costa Counties.

East Bay Connects has organized a mainstream media and social media campaign to make people aware of the need for Broadband and the opportunity to take advantage of the Digital Inclusion Solution. Also East Bay Connects presents Digital Inclusion Solution workshops in which participants receive digital literacy training, sign up for Broadband and receive a voucher for the free home computer and the year of free tech support. By now, hundreds and hundreds of people have signed up for Broadband and received their free computers, training, and tech support.

1-TO-1 AROUND THE CLOCK

To expand the impact of East Bay Connects, EBBC has joined with OTX West, the Oakland Unified School District (OUSD), the Oakland Mayor's Office, and a number of other agencies and community groups to form Get Connected! Oakland.
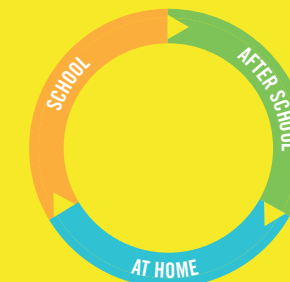
Get Connected! Oakland designed a survey to determine how many OUSD students lack Broadband access and computers at home. OUSD and OTX West conducted the survey and found that this was true of approximately:

- 1% of the students in Hills schools (less than 50 students).
- 30% of the students in Midlands schools (more than 3,350 students).
- 50% of the students in Flatlands schools (more than 10,650 students).

These results, which correlate closely to the poverty levels in the surrounding neighbor-hoods, mean that more than 14,000 OUSD students lack Broadband access and computers at home. This translates to approximately 11,000 homes and families.

Digital inequity across the District appears to be higher than most other cities in the East Bay. To address this very serious

problem, OUSD has joined together with OTX West, Get Connected! Oakland, and East Bay Connects to develop a district-wide model to help to ensure that all students have equitable, supportable, and standardized access to good computers and Broadband 24/7. This model is known as "1-To-1 Around the Clock.

SCHOOL · AFTER SCHOOL · AT HOME

There are three components in the 1-To-1 Around the Clock Model:

1. Computer labs and Chromebooks during the school day on campuses.
2. Computer labs at school sites, recreation centers, Boys and Girls clubs, libraries, public housing facilities, and other after-school locations.
3. Home computers with Broadband connections.

OUSD is partnering with OTX West, Get Connected! Oakland and East Bay Connects to implement the 1-to-1 Around the Clock Model. According to this

partnership, OTX West installs and maintains high-quality, refurbished computers in many of the computer labs and classrooms in Oakland schools and in many of the computer lab after-school locations, such as the City of Oakland Parks and Recreation Centers, Boys and Girls Clubs, and Public Housing Projects.

In relation to home computers, the partnership is utilizing the Digital Inclusion Solution to assist families to sign up for low-cost Broadband directly and through the East Bay Connects Contact Center. Then new Broadband subscribers receive a free computer loaded with software, free training, and free tech support.

OUSD has adopted the two year goal—shared by Get Connected! Oakland, OTX West, and East Bay Connects—of getting a very large percentage of the 11,000 not connected OUSD families connected to low-cost Broadband at home with a free desktop computer, using the Digital Inclusion Solution.

At the same time, OTX West and EBBC are exploring expanding the Oakland 1-To-1 Around the Clock model into other school districts in the East Bay. To support these efforts, OTX West and EBBC are pursuing substantial funding from a variety of sources.

What comes next?

EBBC expects that 2015 will be a good year, with significant improvements in East Bay Broadband infrastructure and significant declines in the East Bay digital divide.

EBBC is using carry-over CPUC funding from its first three years of operations to support an additional year of operations. During this "Year of Action" EBBC will continue to pursue its Broadband Infrastructure and East Bay Connects Initiatives.

In relation to infrastructure, EBBC will:

• Expand its promotion of Broadband infrastructure improvements and city and county Broadband best practices throughout the East Bay.

• Encourage regional Broadband planning efforts.

• Explore the potential of funding Broadband infrastructure from funds designated for physical infrastructure improvement.

In relation to East Bay Connects, EBBC will:

• Work closely with OTX West and the Oakland Unified School District to use the 1-To-1 Around the Clock model to give a much higher percentage of Oakland students and their families access to low-cost Broadband and computers in their homes.

• Expand 1-To-1 Around the Clock to other school districts in the East Bay.

• Pursue more and more computer donations from public agencies and corporations.

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EAST BAY **BROADBAND** CONSORTIUM