Lighting Up Libraries
High-speed Broadband in California Public Libraries

An Update on the First Nine Months

April 2, 2015

California STATE LIBRARY
FOUNDED 1850
PRESERVING OUR HERITAGE, SHAPING OUR FUTURE

Greg Lucas, State Librarian of California

EXECUTIVE SUMMARY

In just the first nine months of the governor and the Legislature's "Lighting Up Libraries" initiative, 53 library jurisdictions with 389 individual libraries – about one-third of the state's public libraries – are poised to dramatically increase their bandwidth while cutting their monthly service charges by nearly two-thirds.

By 2020, all of California's 1,112 public libraries will have connectivity worthy of a state known worldwide for its innovation.

A needs assessment conducted two years ago by the State Library – http://www.library.ca.gov/lds/docs/Public_Library_Broadband_Assessment_2014.pdf – found that nearly two-thirds of public libraries operate at "slow" or "very slow" speeds.

In many places in California, private residences have significantly better connectivity for far few users.

Improving public library bandwidth – "Lighting Up Libraries" – is a statewide game changer.

Better bandwidth allows public libraries to truly be community information hubs, connecting the more than 21 million Californians with library cards to the essential online resources necessary for 21st Century digital citizenship.

"Lighting Up Libraries" will mean patrons can enjoy speedier, more productive sessions on terminals – potentially shortening the lines that exist in many libraries waiting for a free screen.

"Lighting Up Libraries" will also allow video-conferencing and streaming media, let librarians and patrons create content as well as boost wireless access.

Libraries will be able to collaborate with each other on digital offerings and engage with arts, cultural, research and education institutions throughout the state – and beyond.

The State Library is partnering on this project with the Corporation for Education Network Initiatives in California – CENIC, as it likes to be called – and

the Califa Library Group, a not-for-profit entity acting as the state's fiscal and administrative agent.

A continuous appropriation of $2.25 million is contained in the budget for the 2014-2015 fiscal year to allow libraries to be part of CENIC's 3,800-mile, fiber optic network. Lawmakers and the governor also included $1 million in grants to help libraries in underserved and rural communities purchase equipment or make site improvements needed to connect to the network.

Shortly after the beginning of the new fiscal year on July 1, Califa, CENIC and the State Library will begin the application process for the second year of hookups.

This earlier startup date is partly due to the lengthy time table between applying and receiving a federal E-Rate discount, which can reduce a library's monthly broadband service charge up to 90 percent.

E-Rate discounts – and an additional state discount through the California Teleconnect Fund – are a key reason the libraries in the first round of hookups are seeing such a dramatic drop in their monthly bills.

For example:

The City of Azusa's library currently pays $1,250 per month for a "slow" 50 megabits per second connectivity. Now it will pay $72.50 each month for 1 gigabit (1,000 megabits) per second.

Another important lesson learned this year is that the longer the period available to accommodate local decision-making timelines and needed site improvements, the better.

Essential to a successful "Lighting Up Libraries" is the grants offered to cash-strapped libraries for the equipment and network upgrades necessary to high-speed connectivity.

The $1 million allocated by the governor and lawmakers in this year's budget is a key factor in allowing participation in the program by libraries in underserved and rural communities – the very libraries who would benefit most from the opportunities created through better connectivity.

Recognizing the barriers to participation removed by extending this kind of financial assistance, the State Library used an additional $700,000 in one-time funds approved by the governor and the Legislature to support libraries to augment the program.

The grants, up to a maximum of $30,000 per applicant library, are awarded based on per capita spending on libraries by jurisdiction, a methodology used previously by the State Library for various grant programs.

No money for this critical piece of "Lighting Up Libraries" is currently in the proposed budget for the fiscal year beginning July 1, 2015.

Extrapolating from applications already received, a potential need of roughly $13 million over the next five years – $2.6 million annually – has been identified by the State Library.

More detail on program needs can be found at the end of this update. A timeline of actions taken by the State Library and its partners over the past nine months follows the report.

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TIMING AND COST FOR LIBRARY CONNECTIONS

July 1 is the start date for connecting the first libraries to the broadband network operated by the Corporation for Education Network Initiatives in California, which calls itself CENIC.

CENIC's members include the University of California, the California State University system, the state's 112 community colleges and a growing number of public schools.

On the next page is a listing of the 53 library jurisdictions – 389 individual libraries – that CENIC hopes to connect during the 2015-2016 fiscal year.

The number of branches in each jurisdiction being connected is indicated in parentheses.

LIBRARY JURISDICTIONS

Alameda County Library (11)

Alameda Free Library (3)

Alhambra Public Library (1)

Altadena Library District (2)

Amador County Library (4)

Arcadia Public Library (1)

Azusa City Library (1)

Beaumont Library District (1)

Berkeley Public Library (5)

Buena Park Library District (1)

Calaveras County Library (8)

Colusa County Library (7)

City of Commerce Public Library (4)

Corona Public Library (1)

Coronado Public Library (1)

Crowell Public Library (1)

Downey City Library (1)

El Dorado County Library (7)

El Segundo Public Library (5)

Escondido Public Library (1)

Humboldt County Library (12)

Huntington Beach Public Library (5)

Inglewood Public Library (2)

Irwindale City Library (1)

Long Beach Public Library (11)

Los Gatos Public Library (1)

Modoc County Library (4)

Monterey Park Bruggemeyer Library (1)

National City Public Library (1)

Napa County Library (4)

Nevada County Library (6)

Oakland Public Library (18)

Oxnard Public Library (3)

Palmdale City Library (1)

Palm Springs Public Library (3)

Pasadena City Library (10)

Peninsula Library System (32)

Placer County Library (13)

Richmond Public Library (3)

San Benito County Free Library (1)

San Francisco Public Library (28)

San Joaquin Valley Library System (110)

Santa Clara County Libraries (9)

Solano County Library (9)

Stanislaus County Library (1)

Sunnyvale Library (1)

Sutter County Library (5)

Thousand Oaks Library (2)

Tuolumne County Free Library (3)

Ventura County Library (12)

Whittier Public Library (2)

Yolo County Library (8)

Yuba County Library (1)

It's unknown at this time which libraries on that list will be the first to experience the startling change in service that can be provided at 1 gigabit per second – compared to current speeds of as low as 5 megabits per second at a number of branches – but care was taken to ensure the list of participants represents a cross-section of the state.

All of the libraries in the first phase of hookups, from Modoc to National City, will jump to a significantly higher speed of connectivity and, in most cases, will pay a substantially reduced price for it. More specifically:

- Yolo County's eight libraries will pay a total of $448.50 each month for 10 gigabits per second. Previously, the county's libraries were at 1 gigabit and paid $2,250 a month.
- Corona Public Library will pay $290 a month for 1 gigabit compared to the $1,250 it currently pays for 10 megabits per second.
- Richmond's three branches jump from 100 megabits per second to 1 gigabit at a new monthly cost of $145 versus the previous $400.
- National City transforms itself from 60 megabits to 1 gigabit, falling from $150 to $145 a month.
- San Benito County goes from a glacial 1.5 megabits to 1 gigabit for $145 a month instead of the current $150.
- Long Beach's 11 branches, which now pay $250 monthly for 50 megabits will get 1 gigabit at $145 per month. That's 200 times the bandwidth for 40 percent of the price they currently pay.

A representative listing of 35 library jurisdictions in Phase I, their new connectivity speed and monthly cost, follows this report.

WHY THE BIG SAVINGS?

The chief factor in the reduced rates is obtaining a so-called E-Rate discount through the Federal Communications Commission.

An E-Rate discount allows public entities like libraries to pay significantly lower service charges for broadband, often at discounts of 70 percent or higher.

An advantage of being part of CENIC's network is their creation of an annual E-Rate consortium, which reduces the effort individual libraries must expend to qualify for a discount.

(At best, the E-Rate application process is cumbersome. "Kafka-esque" is an description used by more than one library jurisdiction.)

Eighty-eight library jurisdictions were part of a consortium organized by CENIC in late 2014 to obtain federal E-Rate discounts.

There's at least a one fiscal year lag time between discount approval and receipt of funds. So those of the 88 in the consortium who want to be connected now must pay at least their current rate until the discount kicks in on or around July 1, 2016.

Currently, libraries can also take advantage of additional discounts through the California Teleconnect Fund. The fund helps libraries reduce the amount of the service charge remaining after the E-Rate discount is calculated.

For example, a library that experienced a 70 percent drop in its service charge through E-Rate could receive a subsequent discount from the teleconnect fund of up to half of the remaining 30 percent of the affected library's monthly bill.

Recently enacted legislation expands eligibility for technology fund discounts to "community-based "organizations.

Because of the anticipated volume from this new category of applicant, staff at the Public Utilities Commission, the teleconnect fund's home, has proposed a moratorium on new applications for discounts – effectively cutting out a big part of the savings that helps make "Lighting Up Libraries" pencil out.

Califa, CENIC and the State Library have explained to commission staff the adverse impact such a decision would have and proposed a variety of alternatives.

Action by the commission, one way or the other, has yet to be scheduled.

HARDSHIP GRANTS

In addition to the $2.25 million continuous appropriation in the current year budget for connecting to CENIC's broadband network, lawmakers and the governor included $1 million to assist libraries in equipment purchases or site improvements needed for high speed connectivity.

Among the items libraries will need are gigabit-capable routers, a firewall and switches. A number of locations require site improvements to accommodate broadband.

An advantage of partnering with CENIC is its relationship with Cisco Systems, which can allow libraries to purchase some equipment at savings of at least 50 percent.

Based on conversations with local libraries and data compiled by CENIC, it appeared to the State Library that the need for such grants – particularly in underserved or rural communities – justified a larger investment than the $1 million earmarked in the budget.

Accordingly, as mentioned earlier, the State Library used $700,000 in one-time funds approved by the governor and the Legislature in this year's budget to augment the program.

The State Library recently contracted with the Southern California Library Cooperative to act as its fiscal and administrative agent in awarding the grants.

As it has in other grant programs, the State Library uses per capita library spending by jurisdiction to measure need.

Jurisdictions with the lowest per capita spending receive the highest grant award -- $30,000 per library, in Phase I. Local matching funds are also required.

An "itemized list of expenditures" of the $1 million in the budget – and the $700,000 used to augment it – hasn't been completed because the Southern California Library Cooperative is still processing applications.

To date, 31 libraries have requested $771,753 and provided matching contributions of $740,658, according to the cooperative. More applications are pending.

In conservatively gauging the "need" for such grants over the five-year life of "Lighting Up Libraries," the State Library estimates a router connecting each of the state's 183 main branch libraries to CENIC at a cost $20,000.

Linking the remaining 929 branch libraries to the 183 main libraries will require routers and switches totaling $10,000 per branch.

Combined, that's nearly a $13 million investment in strengthening California's communities.

Providing smaller grants to localities with higher per capita library spending, as the State Library is doing, shrinks that potential universe of need.

LESSONS LEARNED SO FAR

The 34 of the 88 libraries that applied for an E-Rate discount but elected not to go forward in the fiscal year beginning July 1 cited several factors.

A key reason mentioned by smaller as well as mid-size library jurisdictions is the lag time between being awarded an E-rate discount and receiving it.

For some libraries their Internet services are linked to their city or county and escaping from an existing contractual obligation wasn't practical, particularly with cancellation penalties.

Some potential strategies on increasing participation in subsequent phases of the project are discussed in the next section.

FAQs have been developed to help address commonly asked questions from libraries. These FAQs will be updated during the second year of implementation.

Overall, the State Library didn't expect such a high level of participation by libraries in Phase I, given fiscal and other constraints, particularly larger jurisdictions like Humboldt County, Long Beach and Ventura County.

As one might expect, directors of these libraries say that a combination of improved connectivity and drastically lower service charges were key factors in their decisions.

Several of the state's larger library jurisdictions that didn't participate in this round indicate they plan to do so in Phase II.

That's another reason CENIC, Califa and the State Library intends to start the E-Rate application process early in the new fiscal year. Having at least a general idea of the level of desire provides a more reliable yardstick to measure budgetary need.

WHAT NEEDS TO BE DONE NOW

In a nutshell: The budget for the fiscal year beginning July 1, 2015 should maintain and build on the foundation established in the current budget.

Many of the larger library jurisdictions, which have multiple branches (86 in Los Angeles County alone) are planning to connect during the second year of implementation, increasing the demand for hardship grants.

With those goals in mind:

- Allocate at least $1.5 million for hardship grants to public libraries that require equipment or network upgrades and physical modifications to library sites that enable broadband, such as paying for new power circuits or cable runs. (Making the $1.5 million a continuous appropriation, like the $2.25 million, would provide reliability and help manage annual project workload.)

- Establish bridge loans or some other funding mechanisms, perhaps through the state Infrastructure Bank to aid library jurisdictions with limited information technology budgets and can't connect because of the one-year delay in receipt of E-rate discount reimbursements. The loan could be paid off over time with the savings from the E-Rate and state technology fund discounts.

- Increase the $2.25 million continuous appropriation by $225,000 to pay for the costs incurred by Califa as the state's fiscal and administrative agent, an oversight in the first year's appropriation.

- Communicate early and often with library jurisdictions. Initial start-up activities, detailed on the timeline that follows, truncated the first year's implementation schedule. CENIC, Califa and the State Library's intention is to begin the second year of implementation in July 2015, allowing better coordination with libraries, local governing bodies and state decision makers.

This year's theme for National Library Week is "unlimited possibilities." Creating a network of high-speed hook-ups, "Lighting Up Libraries," is – in a very real way – offering unlimited possibilities to all Californians.

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BROADBAND PROJECT TIMELINE

Date	Event Description
July 1, 2014	Governor's enacted 2014/2015 budget proposes an increase of $3.25 million General Fund ($2.25 M ongoing and $1.0 M one-time) for the purpose of allowing California's public library branches to access a statewide, high-speed Internet network
July 1, 2014	CSL attends CTF workshop regarding proposed changes to CTF fund which could impact funding model for Broadband project.
July 2, 2014	CSL is made aware of the need for an "Aggregator", a third party who will enter into a contract with CENIC, the Libraries and the Telco providers, and act as an administrative and fiscal agent for the project. The aggregator typically receives up to 10% administrative fees of the $2.25 M.
July 3, 2014	One-Time broadband grant program details developed. Program put on hold until E-Rate consortium is formed and Aggregator named.
July 8, 2014- December 2014	CSL works with CLA, CTF-AC, CENIC, K-12, CCCO on proposed changes to CTF. Tasks include working with CPUC Staff regarding Library impact to CTF Fund, budget projections, strategy sessions, filing for party status, issuing formal comments, etc.
September 8, 2014- September 22, 2014	CSL works with CPUC to streamline CTF application for libraries, and streamline process for library jurisdictions with multiple branch locations. Oakland Public Library is used as a test case, and new process is successful.
September 18, 2014	The Request for Application for statewide broadband aggregator released to Library community.
September 19- October 1, 2014	RFA Eval and Selection Plan Developed
September 29, 2014	A Q&A conference call with organizations interested in applying for statewide broadband aggregator.
October 9, 2014	The RFA and Q&A summary is released to potential applicants.
October 14, 2014 October 16, 2014	CSL and CENIC conduct California Public Library E-Rate Consortium Q&A conference calls with the Library Field. Calls describe the purpose and intent of E-Rate consortium and LOA process.
October 21, 2014	Applications for statewide broadband aggregator are due to California State Library.
October 27-30, 2014	Selection of a State Library Application Evaluation Team is completed.
November 8, 2014	CIO provides Statewide Broadband Project Update at CLA session: Taking Charge of the Change: Partnering for a Countywide Broadband Plan
November 13, 2014	Review and scoring of applications is conducted by the Application Evaluation Team. A recommendation is provided to

Date	Event Description
	the State Librarian.
November 13, 2014	CIO provides formal written recommendation to State Librarian regarding selection of statewide broadband aggregator.
November 17, 2014	The State Librarian announces the grant award for statewide broadband aggregator.
December 2, 2014	State Librarian releases notice to field regarding selection of CALIFA as statewide broadband aggregator
December 8, 2014 December 10, 2014 December 12, 2014	CSL, CENIC, and CALIFA conduct LOA next step webinars. Webinars designed to inform those who submitted LOA's to CSL next steps in E-Rate consortium process.
December 9-22, 2014	CSL/CENIC/CALIFA conduct network engineering assessment phone calls with 88 Library jurisdictions that returned LOA's. Purpose of calls is to obtain network topology of jurisdictions to provide to CENIC engineers in order to asses readiness to connect and best way to connect jurisdictions to CalREN backbone.
December 19, 2014	State Librarian releases award letter to CALIFA group for grant to be statewide broadband aggregator
January 1- February 2, 2015	One-Time broadband equipment grant program finalized.
January 23-February 3, 2015	CSL/CALIFA/CENIC present quotes received from Form 470 filing to Library Community.
February 4, 2015	CSL discusses Grant Aggregator roles with SCLC. SCLC to serve as fiscal agent for one-time equipment grants awards.
February 10-11, 2015	CSL conducts broadband grant program webinars and releases one-time equipment grant program to the field. http://www.library.ca.gov/lds/broadband.html
February 17, 2015	CSL/CALIFA/SCLC/CENIC meet to discuss equipment grant roles and one-time equipment bulk purchasing agreement with Cisco Systems.
February 18, 2015	FAQ for 2015 Library LOA Participants in development for 2 weeks and posted to http://www.library.ca.gov/lds/broadband.html
February 28, 2015	Due Date-Libraries interested in connecting to CalREN in FY 2014/2015 and 2016/2016 must sign contacts with CALIFA
March 2, 2015	Grant fiscal agent award letter issued to SCLC
March 4, 2015	Presentation at Library Director's Forum to go over progress of broadband project, next steps and next LOA filings for FY 2016/2017 -Details of bulk equipment purchase program for library community released
March 6, 2015	Due Date-Grant Applications for one-time equipment grant awards
March 26, 2015	CENIC files Form 471 for libraries that sign contracts with CALIFA to connect to CalREN in FY 2015/2016
March 30, 2015	CSL sends award letters to grant recipients

Date	Event Description
April 6, 2015	Due Date-Equipment requests due to CALIFA
April 13, 2015	SCLC issues awards to libraries
April 20, 2015	CALIFA releases RFQ for equipment purchases

LOA SUBMISSIONS

	Library Jurisdiction/System	Outlets
1	Alameda County Library	11
2	Alameda Free Library	3
3	Alhambra Civic Center Library	1
4	Altadena Library District	2
5	Arcadia Public Library	1
6	Azusa City Library	1
7	Beaumont Library District	1
8	Belvedere-Tiburon Library	1
9	Benicia Public Library	1
10	Black Gold Cooperative	33
11	Buena Park Library District	1
12	Butte County Library	6
13	Calabasas Public Library	1
14	Carlsbad City Library	3
15	Chula Vista Public Library	3
16	City of Camarillo Public Library	1
17	City of Commerce Public Library	4
18	City of Torrance	7
19	Coalinga Huron Library District	2
20	Colusa County Library	7
21	Contra Costs County Library	26
22	Corona Public Library	1
23	Coronado Public Library	1
24	County of Los Angeles Public Library	86
25	Crowell Public Library	1
26	Dixon Public Library	1
27	Downey City Library	1
28	El Centro Public Library	1
29	El Segundo Public Library	5
30	Escondido Public Library	1
31	Fresno County Free Library	37
32	Glendora Public Library	1
33	Humboldt County Library	12
34	Huntington Beach	5
35	Inyo Free Library	6
36	Irwindale Public Library	1
37	Kern County Library	25
38	Kings County Library	7
39	Lake County Library	4
40	Lodi Public Library	**1**

	Library Jurisdiction/System	Outlets
41	Long Beach Public Library	11
42	Los Gatos Public Librray	1
43	Madera County Library	5
44	Marin County Free Library	10
45	Mendocino County Library	6
46	Merced County Library	9
47	Mill Valley Public Library	1
48	Mission Viejo Library	1
49	Modoc County Library	4
50	Monterey Park Bruggemeyer Library	1
51	Napa County Library	*4*
52	National City Public Library	1
53	Nevada County Library	6
54	Oakland Public Library	18
55	Oceanside Public Library	1
56	Orange Public Library	*2*
57	Orland Free Library	1
58	Oxnard Public Library	3
59	Palm Springs Public Library	2
60	Palmdale City Library	1
61	Palos Verdes Library District	3
62	Pasadena Public Library	10
63	Placer County Library	13
64	Porterville Public Library	2
65	Richmond Public Library	3
66	San Benito County Free Library	1
67	San Rafael Public Library	2
68	Santa Clara County Library District	9
69	Santa Fe Springs City Library	2
70	Sausalito Public Library	1
71	Shasta Public Libraries	3
72	Signal Hill Public Library	0
73	Simi Valley	1
74	Siskiyou County Library	11
75	Solano County Library Solano Napa and Partners SNAP	12
76	Sonoma County Library	14
77	St Helena Public Library	1
78	Sunnyvale Public Library	1
79	Sutter County Library	3
80	Thousand Oaks Library	2
81	Trinity County Library	3
82	Tulare Public Library	1

	Library Jurisdiction/System	Outlets
83	Tuolomne County Free Library	3
84	Ventura County Library	12
85	Whittier Public Library	2
86	Willows Public Library	2
87	Yolo County Library	7
88	Yorba Linda Public Library	1
		526

CENIC PHASE 1 LIBRARY COST SAVINGS (REPRESENTATIVE SAMPLE)

#	Administrative Domain	# Libraries in Jurisdiction or Cooperative	Bandwidth Pre-CalREN (Mbps)	Bandwidth Post-CalREN (Mbps)	Monthly cost Pre-CALREN (including discounts if any)	Monthly cost Post-CalREN (including discounts)	Previous use of E-rate (Yes/No)	Previous use of CTF (Yes/No)	E-rate Discount	Monthly E-rate discount (previous)	E-rate Discount on one-time installation costs	Post-CalREN E-rate discount on monthly costs	New E-rate dollars captured under program in Year 1*
1	Alameda County Library	11	100	1,000	$500.00	$435.00	Yes	Yes	40%	$666.67	$800.00	$580.00	-$240.00
1	Alameda Free Library	3	10	1,000	$229.17	$362.50	Yes	Yes	50%	$458.34	$1,000.00	$725.00	$4,199.92
1	Alhambra Public Library	1	100	1,000	$200.00	$145.00	Yes	Yes	80%	$1,600.00	$1,600.00	$1,160.00	-$3,680.00
1	Altadena Library District	2	20	1,000	$466.68	$145.00	Yes	Yes	80%	$3,733.44	$1,600.00	$1,160.00	-$29,281.28
1	Arcadia Public Library	1	50	1,000	$1,250.00	$362.50	No	No	50%	$0.00	$1,000.00	$725.00	$9,700.00
1	Azusa City Library	1	50	1,000	$1,000.00	$72.50	No	No	90%	$0.00	$44,649.90	$1,305.00	$60,309.90
1	Beaumont Library District	1	1.5	1,000	$1,076.00	$145.00	No	No	80%	$0.00	$38,888.80	$1,160.00	$52,808.80
1	Berkeley Public Library	5	50	1,000	$300.00	$290.00	Yes	Yes	60%	$900.00	$1,200.00	$870.00	$840.00
1	Buena Park Library District	1	10	1,000	$1,250.00	$145.00	No	No	80%	$0.00	$13,927.20	$1,160.00	$27,847.20
1	City of Commerce Public Library	4	100	1,000	$180.00	$72.50	Yes	Yes	90%	$3,240.00	$1,800.00	$1,305.00	-$21,420.00
1	Corona Public Library	1	10	1,000	$2,250.00	$290.00	No	No	60%	$0.00	$1,200.00	$870.00	$11,640.00
1	Coronado Public Library	1	50	1,000	$1,799.00	$435.00	No	No	40%	$0.00	$800.00	$580.00	$7,760.00
1	Crowell Public Library	1	10	1,000	$265.00	$435.00	No	No	40%	$0.00	$800.00	$580.00	$7,760.00
1	Downey City Library	1	5	1,000	$150.00	$145.00	No	No	80%	$0.00	$25,688.80	$1,160.00	$39,608.80
1	El Segundo Public Library	5	1.5	1,000	$750.00	$1,330.88	No	No	40%	$0.00	$400.00	$1,774.51	$21,694.08
1	Escondido Public Library	1	50	1,000	$127.25	$145.00	Yes	Yes	80%	$1,018.00	$1,600.00	$1,160.00	$3,304.00
1	Huntington Beach Public Library	5	100	1,000	$750.00	$435.00	Yes	Yes	40%	$1,000.00	$12,066.80	$580.00	$7,026.80
1	Long Beach	11	50	1,000	$250.00	$145.00	Yes	Yes	80%	$2,000.00	$800.00	$1,160.00	-$9,280.00
1	Los Gatos Public Library	1	50	1,000	$222.00	$435.00	No	No	40%	$0.00	$800.00	$580.00	$7,760.00
1	National City Public Library	1	60	1,000	$190.00	$72.50	Yes	Yes	90%	$3,420.00	$1,800.00	$1,305.00	-$23,580.00
1	Napa County Library	4	100	1,000	$1,250.00	$290.00	No	No	60%	$0.00	$1,200.00	$870.00	$11,640.00
1	Oxnard Public Library	3	20	1,000	$111.00	$72.50	Yes	Yes	90%	$1,998.00	$1,800.00	$1,305.00	-$6,516.00
1	Modoc County Library	4	5	50	$400.00	$212.30	No	No	80%	$0.00	$21,692.00	$1,698.40	$42,072.80
1	Monterey Park Bruggemeyer Library	1	80	1,000	$500.00	$145.00	Yes	Yes	80%	$4,000.00	$1,600.00	$1,160.00	-$32,480.00
1	Oakland Public Library	18	30	10,000	$107.00	$212.88	Yes	Yes	90%	$1,926.00	$900.00	$3,831.84	$23,770.08
1	Palmdale City Library	1	1.5	1,000	$400.00	$72.50	No	No	90%	$0.00	$1,800.00	$1,305.00	$17,460.00
1	Palm Springs	2	50	1,000	$750.00	$150.00	No	No	80%	$0.00	$800.00	$1,200.00	$15,200.00
1	Richmond Public Library	3	100	1,000	$400.00	$145.00	No	No	80%	$0.00	$1,600.00	$1,160.00	$15,520.00

#	Administrative Domain	# Libraries in Jurisdiction or Cooperative	Bandwidth Pre-CalREN (Mbps)	Bandwidth Post-CalREN (Mbps)	Monthly cost Pre-CALREN (including discounts if any)	Monthly cost Post-CalREN (including discounts)	Previous use of E-rate (Yes/No)	Previous use of CTF (Yes/No)	E-rate Discount	Monthly E-rate discount (previous)	E-rate Discount on one-time installation costs	Post-CalREN E-rate discount on monthly costs	New E-rate dollars captured under program in Year 1*
1	San Benito County Free Library	1	1.5	1,000	$150.00	$145.00	No	No	80%	$0.00	$1,600.00	$1,160.00	$15,520.00
1	Santa Clara	9	250	10,000	$2,250.00	$864.50	No	No	60%	$0.00	$600.00	$2,593.50	$31,722.00
1	Solano County Library (SNAP)	9	100	10,000	$2,138.19	$474.50	No	Yes	80%	$0.00	$800.00	$3,796.00	$46,352.00
1	Sunnyvale	1	30	1,000	$2,500.00	$290.00	No	No	60%	$0.00	$1,200.00	$870.00	$11,640.00
1	Whittier	2	10	1,000	$250.00	$145.00	Yes	Yes	80%	$2,000.00	$49,574.40	$1,160.00	$39,494.40
1	Yolo County Library	8	1,000	10,000	$2,250.00	$448.50	No	Yes	80%	$0.00	$200.00	$3,588.00	$43,256.00
1	Ventura County Library	12	5	1,000	$155.40	$330.00	Yes	Yes	60%	$466.20	$0.00	$990.00	$6,285.60
35	**Sub-totals**	**136**	**2,661**	**70,050**	**$26,816.69**	**$10,041.06**				**$28,426.65**	**$237,787.90**	**$46,587.25**	**$455,715.10**

* This is the sum of the E-rate on one-time installation costs plus 12 times the post-CalREN E-rate monthly discounts.
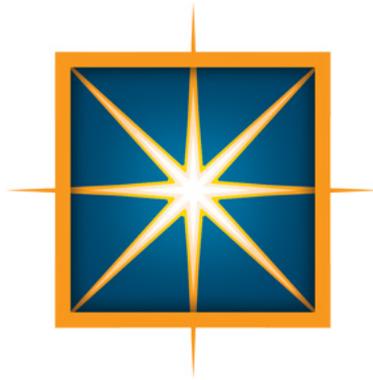[1] Thousand Oaks, Inglewood Public Library, Irwindale and Humboldt County Library are not included in the report due to incomplete survey and/or interview data.
[2] Pasadena City and Sutter County Library are not included as they are not receiving upgraded bandwidth to the jurisdiction.
Nb - negative balances in "N" are due to cost savings on upgraded library circuits.

CALIFORNIA PUBLIC LIBRARY BROADBAND PROJECT
GRANT APPLICATION

California Public Library Broadband Project

Grant Application Program

APPENDIX A-Grant Application

California Public Library Broadband Project
Grant Assistance Application

ELEMENT 1: INFORMATION

Applicant Information	
1. Library Full Name	Click here to enter text
2. Library DUNS Number	Click here to enter text
3. County	Click here to enter text
4. Street Address	Click here to enter text
5. City, State Zip+4	Click here to enter text
6. Website URL:	Click here to enter text
7. Contact Name and Title	Click here to enter text
8. Contact Phone Number	Click here to enter text
9. Contact Email Address	Click here to enter text

10.	Project Purpose (Please check all that apply)
☐ A Technology Hardware Funding covering network equipment, and equipment installation and configuration.	
☐ B Architectural and Building Funding covering building modifications necessary to install and operate the network equipment.	
☐ C Network Consulting Funding covering consultant costs associated with equipment configuration.	

Project Timeline	
11. Can the project be completed by Dec. 31, 2015?	☐ Yes
12. Estimated start date	Click here to enter text
13. Estimated completion date	Click here to enter text

Project Budget	
14. Amount of grant funding request	Click here to enter text
15. Amount of matching funds	Click here to enter text
16. Total Project Cost	Click here to enter text

As an authorized representative of the library listed above, I hereby certify that the information contained in this application is true and correct. I agree to the terms and conditions surrounding use of this funding if awarded.

_____

Signature of Library Director   Date

ELEMENT 2: ACTIVITIES

Activity	Timeline

ELEMENT 3: BUDGET

Provide specific budget information for each project you are proposing.

- Do NOT include costs that are ineligible for grant funding, such as your own staff time.
- Column A should detail what will be purchased. Column B should list expected costs from the vendor you intend to purchase items and services from.
- Where further explanation is needed or could be helpful, use the space provided.
- Round all costs to the nearest dollar.
- If the grant request does not cover the full cost of any item listed in the application, detail the amount and sources of funds to be used to pay for the balance in the Explanation field.

Proposed Budget for Grant Eligible Project Costs	
Column A	**Column B**
Project Budget Detail	**Project Costs**
A Technology Hardware Funding	
	$0
	$0
	$0
Subtotal	$0
Explanation:	
Project Budget Detail	**Project Costs**
B Architectural and Building Funding-	
	$0
	$0
	$0
Subtotal	$0
Explanation:	
Project Budget Detail	**Project Costs**
C Network Consulting Funding-	
	$0
	$0
	$0
Subtotal	$0
Explanation:	
Total Cost of Eligible Projects (Consulting Fees, Materials, Hardware, Software)	$0
X% Cash Match Committed by Library (May be cash or in-kind**)**	$0
Additional Match	$0
Total Grant Funding Requested	**$0**

ELEMENT 4: SUSTAINABILITY

Sustainability	
Will there be ongoing costs? If yes, what will they be to continue to support this project?	Click here to enter text
Explain how you will fund and support any ongoing costs to support this project after FY 2015/2016.	Click here to enter text

ELEMENT 5: ATTACHMENTS

If you have additional resources that support your grant, please attach them after this page.

- Be sure to scan the application with attachments.

ELEMENT 6: SUBMISSION

Please submit applications to:

By Mail:

Southern California Library Cooperative

248 E. Foothill Blvd, Suite 101

Monrovia, California 91016-5525

Attn: Broadband Grants

By Email*:

Send to **dsatchwell@socallibraries.org**

* If you email your application, the signed original will need to be received within 7 days of the emailed application.

APPENDIX B-Eligible Expenses

Technology Funding

Access Point (Data Distribution)
- An Access Point is a base station in a wireless Local Area Network. Access points are typically stand-alone devices that may plug into an Ethernet switch or server or may provide a repeater function for wireless networks.

Antenna
- An antenna is a device for transmitting and/or receiving radio frequency signals.

Cabling/Connectors
- Cabling refers to the wires or groups of wires capable of carrying voice, video or data transmissions. Cabling provides electrical (or, in the case of fiber optics, lightwave) connectivity between points. Connectors are devices that connect wires or fibers.
- Cabling, connectors and related components used for voice, video and data transmission. Eligible components include:
- Cable (e.g., copper, fiber, coax, twisted pair)
- Connectors
- Gigabit Interface Convertor (GBIC) or Small Form-factor Pluggable (SFP) device or SFP+ device
- Jacks, panels, faceplates and wire managers
- Network Interface Cards
- Other cabling components necessary to transport information to the public areas of a library.

Circuit Cards/ Components
- Circuit cards and related components, such as memory modules/Random Access Memory (RAM), if they are necessary for adequate performance of an eligible component. For example, an eligible router.
- Network interface cards that are separately priced or used in eligible equipment.

Data Distribution
- Components used to transport information from telecommunication or Internet access facilities to the public areas of a library. Such components may include:
- Access Points
- Firewalls
- Network Switches
- Routers
- Switches
- Wireless LAN Controllers.

Fiber or Dark Fiber
- Trenching or aerial insertion for on-premises fiber installation.
- Lit or dark fiber, provided by any entity, including a non- telecommunications carrier. Dark fiber is eligible as long as applicants light the fiber immediately.
- Lit fiber—For leased lit fiber, special construction charges are eligible.
- Dark fiber—From the eligible entity up to the property line, construction costs to connect the fiber are eligible.

Network Management Software
- Network Management is a system of equipment or software used in monitoring, controlling, and managing a communications network.

Wireless Internet
- A wireless Internet access service is eligible under the same provisions as wired access to the Internet.

Architectural and Building Funding

Conduit
- Conduit and raceway including installation of conduit for network Point-of-Entry services.
- Conduit installation into the Point-of-Entry or server room, including vaults, surface-mount conduit, wall penetration, and related services and products.

Electrical System Upgrades
- Electrical service installation or upgrades. Electrical system upgrades refer to products and services that provide, upgrade, or enhance the provision of electrical power.
- Purchase and installation of electrical panels, electrical services and backboards.

Environmental Monitoring Components
- Environmental monitoring components provide information about heat, humidity or other factors in order to provide a warning system for conditions that may affect the correct operation of equipment. For example, an environmental monitoring card is sometimes available as an optional feature of an uninterruptible power supply and is used to monitor the environmental conditions of a rack, computer room or data center.

Equipment Racks and Cabinets
- A rack is a metal supporting framework for mounting cables, equipment, and/or wires. A cabinet is an enclosure for equipment, terminating cables, connection devices, and/or wires.
- Racks are eligible only to the extent that the components they contain are eligible. A surge protector provided as an integral component of a rack or cabinet, without a separately identifiable cost can be included in the cost of the rack or cabinet but a separately priced surge protector is not eligible.

Heating, Ventilation, and Air Conditioning (HVAC)
- Purchase and installation of HVAC products and services.

Uninterruptible Power Supply (UPS)/Battery Backup
- An Uninterruptible Power Supply (UPS)/Battery Backup that protects eligible equipment is eligible as a data protection component but no funding will be provided for UPS systems that can provide continued backup power for substantial periods in excess of that necessary for basic power protection.
- The following components used for the reliable operation of a UPS are eligible:
  - UPS Interface Expander
  - Relay I/O Module.

Networking Consulting Funding
Consultant costs associated with configuring equipment.

APPENDIX C-Grant Award Amounts

Grant amounts are based on Local Income Per Capita (LIPC) level. This figure is the result of dividing Local Operating Income for the most recent period available (2012-2013), by the Population of the Legal Service Area. In addition, a Local Match is required for the two higher LIPC Levels.

The Grant Amounts are divided into three tiers, or LIPC Levels, defined as follows:

	LIPC		Grant	Local	Local	Grant +
	From	Up To	Amount	Match %	Amount	Match
LIPC Level 1	$0	$50.00	$30,000	0%	$0	$30,000
LIPC Level 2	$50.01	$99.99	$24,000	25%	$6,000	$30,000
LIPC Level 3	$100.00	$∞	$20,000	50%	$10,000	$30,000

The Grant Funds available for this round of implementation is $1,800,000. The total funding expenditures for Levels 1, 2, and 3 are displayed as follows, including the Grant Plus Match totals.

	No. Libraries	Grant Amount	Total Granted	Grant + Match
LIPC Level 1	46	$30,000	$1,380,000	$1,380,000
LIPC Level 2	14	$24,000	$336,000	$420,000
LIPC Level 3	5	$20,000	$100,000	$150,000
Totals	**65**		**$ 1,816,000**	**$ 1,950,000**

LIBNAME	LIPC	LIPC Level	Grant Amount	Match Percent	Match Amount	Grant + Match
Alameda County Library	$42.48	1	$30,000	0%	$0	$30,000
Alameda Free Library	$52.15	2	$24,000	25%	$6,000	$30,000
Alhambra Civic Center Library	$32.34	1	$30,000	0%	$0	$30,000
Altadena Library District	$48.44	1	$30,000	0%	$0	$30,000
Arcadia Public Library	$54.09	2	$24,000	25%	$6,000	$30,000
Azusa City Library	$25.19	1	$30,000	0%	$0	$30,000
Beaumont Library District	$16.74	1	$30,000	0%	$0	$30,000
Benicia Public Library	$61.51	2	$24,000	25%	$6,000	$30,000
Berkeley Public Library	$131.94	3	$20,000	50%	$10,000	$30,000
Black Gold Coop Library System	$26.46	1	$30,000	0%	$0	$30,000
Buena Park Library District	$22.00	1	$30,000	0%	$0	$30,000
Calabasas City Library	$64.38	2	$24,000	25%	$6,000	$30,000
Carlsbad City Library	$87.17	2	$24,000	25%	$6,000	$30,000
City Of Commerce Public Library	$229.43	3	$20,000	50%	$10,000	$30,000
Coalinga-Huron Unified School District Libr	$26.78	1	$30,000	0%	$0	$30,000
Contra Costa County Library	$22.67	1	$30,000	0%	$0	$30,000
Corona Public Library	$16.26	1	$30,000	0%	$0	$30,000
Coronado Public Library	$126.70	3	$20,000	50%	$10,000	$30,000
Crowell Public Library	$93.17	2	$24,000	25%	$6,000	$30,000

Downey City Library	$16.93	1	$30,000	0%	$0	$30,000
El Centro Public Library	$12.66	1	$30,000	0%	$0	$30,000
El Segundo Public Library	$131.55	3	$20,000	50%	$10,000	$30,000
Escondido Public Library	$22.91	1	$30,000	0%	$0	$30,000
Fresno County Public Library	$25.44	1	$30,000	0%	$0	$30,000
Glendora Library & Cultural Center	$33.23	1	$30,000	0%	$0	$30,000
Humboldt County Library	$19.90	1	$30,000	0%	$0	$30,000
Huntington Beach Public Library	$18.99	1	$30,000	0%	$0	$30,000
Inglewood Public Library	$23.72	1	$30,000	0%	$0	$30,000
Inyo County Free Library	$28.08	1	$30,000	0%	$0	$30,000
Irwindale Public Library	$281.54	3	$20,000	50%	$10,000	$30,000
Kern County Library	$7.67	1	$30,000	0%	$0	$30,000
Kings County Library	$12.65	1	$30,000	0%	$0	$30,000
Lake County Library	$13.28	1	$30,000	0%	$0	$30,000
Lodi Public Library	$21.44	1	$30,000	0%	$0	$30,000
Los Gatos Library	$70.46	2	$24,000	25%	$6,000	$30,000
Madera County Library	$5.91	1	$30,000	0%	$0	$30,000
Mendocino County Library	$30.91	1	$30,000	0%	$0	$30,000
Merced County Library	$5.56	1	$30,000	0%	$0	$30,000
Mission Viejo Library	$29.10	1	$30,000	0%	$0	$30,000
Modoc County Library	$26.15	1	$30,000	0%	$0	$30,000
Monterey Park Bruggemeyer Library	$29.22	1	$30,000	0%	$0	$30,000
Napa County Library	$50.61	2	$24,000	25%	$6,000	$30,000
National City Public Library	$45.89	1	$30,000	0%	$0	$30,000
Nevada County Library	$23.55	1	$30,000	0%	$0	$30,000
Oakland Public Library	$59.89	2	$24,000	25%	$6,000	$30,000
Oxnard Public Library	$21.34	1	$30,000	0%	$0	$30,000
Palm Springs Public Library	$43.38	1	$30,000	0%	$0	$30,000
Palmdale City Library	$6.61	1	$30,000	0%	$0	$30,000
Palos Verdes Library District	$91.69	2	$24,000	25%	$6,000	$30,000
Pasadena Public Library	$82.85	2	$24,000	25%	$6,000	$30,000
Porterville Public Library	$19.58	1	$30,000	0%	$0	$30,000
Richmond Public Library	$49.32	1	$30,000	0%	$0	$30,000
San Benito County Free Library	$11.37	1	$30,000	0%	$0	$30,000
Santa Clara County Library	$75.13	2	$24,000	25%	$6,000	$30,000
Shasta Public Libraries	$11.38	1	$30,000	0%	$0	$30,000
Siskiyou County Free Library	$7.75	1	$30,000	0%	$0	$30,000
Solano County Library	$45.15	1	$30,000	0%	$0	$30,000
Sonoma County Library	$30.70	1	$30,000	0%	$0	$30,000
Sunnyvale Public Library	$54.05	2	$24,000	25%	$6,000	$30,000
Sutter County Library	$9.38	1	$30,000	0%	$0	$30,000
Thousand Oaks Library	$54.32	2	$24,000	25%	$6,000	$30,000
Tulare Public Library	$14.57	1	$30,000	0%	$0	$30,000
Ventura County Library	$21.76	1	$30,000	0%	$0	$30,000
Whittier Public Library	$36.97	1	$30,000	0%	$0	$30,000
Yolo County Library	$35.77	1	$30,000	0%	$0	$30,000