



The 2014-15 Budget:

# An Analysis of Local Libraries' Internet Speeds

MAC TAYLOR • LEGISLATIVE ANALYST • MARCH 27, 2014

## Executive Summary

**Governor's Proposal.** The Governor proposes to spend \$3.3 million from the General Fund in 2014-15 for the California State Library (State Library) to contract with the Corporation for Education Network Initiatives in California (CENIC) in an effort to increase Internet speeds at local libraries. Of this amount, \$2.25 million would pay for half of a \$4.5 million annual contract with CENIC for access to its high-speed Internet backbone and related services. The Governor assumes remaining CENIC contract costs would be paid from the California Teleconnect Fund (CTF), a state special fund. In addition, the Governor proposes to spend \$1 million from the General Fund on a one-time basis in 2014-15 to purchase networking equipment for libraries.

**Proposal Has Two Major Shortcomings.** One major shortcoming of the Governor's proposal is that it may not increase Internet speeds at many local libraries. This is because libraries still would rely on commercial Internet providers for "last-mile" connections from their sites to the CENIC backbone or other CENIC-connected sites. Many libraries (or their local governing bodies) may be unwilling to pay commercial providers for faster last-mile Internet speeds. Moreover, some libraries are located in areas with outdated infrastructure that cannot support fast last-mile speeds without costly infrastructure upgrades. Based on CENIC data, these upgrades could cost \$85 million statewide. Libraries and commercial providers both may be unwilling to pay for these upgrades. Another major shortcoming of the Governor's proposal is the lack of adequate cost information. Insufficient back up has been provided to justify additional funding either for CENIC or equipment. Moreover, the Governor's proposal lacks information regarding both what happens if the CTF cannot pay for half the CENIC contract as well as how local libraries are to cover any new last-mile costs.

**Recommend Legislature Reject Governor's Proposal and Focus Instead on Improving Existing Programs.** In view of the above concerns, we recommend the Legislature reject the Governor's proposal. Instead, we recommend the Legislature focus on improving certain existing Internet-related programs—including programs for Internet discounts, bulk purchasing of Internet services, and Internet infrastructure upgrades—that already are designed to assist libraries as well as many other public (and even some private) entities.

## Introduction

This report examines the Governor’s proposal to spend \$3.3 million from the General Fund in 2014-15 to pay for certain Internet connections and equipment at local libraries. The report begins by providing information on (1) the fiscal relationship between the state and local libraries and (2) local libraries’ current Internet service. Next, we describe the Governor’s proposal which is intended to increase Internet speeds at local libraries by having the state pay for certain Internet services on their behalf. The second half of the report provides our assessment of the proposal and discusses our recommendation that the Legislature reject it.

## Background

### Role of State and Local Libraries

**State Library Mostly Performs State-Level Activities.** The State Library’s main functions include (1) serving as the central library for state government; (2) collecting, preserving, and publicizing literature and historical items; and (3) providing specialized research services to the Legislature and the Governor. In addition, the State Library passes through state and federal funds to local public libraries for specified priorities and provides related technical assistance. The 2013-14 budget provides the State Library with \$24 million in state General Fund support—\$19.2 million for state operations and \$4.7 million for local assistance. The State Library also receives \$4.6 million from special funds that are used for various purposes, such as to support the California State Law Library and make library materials accessible to individuals with visual impairments or physical disabilities. Additionally, the State Library receives \$20 million in federal funds, with the majority used for local assistance. The State Library currently has 139 full-time equivalent positions.

### *Local Libraries Are Run by Local*

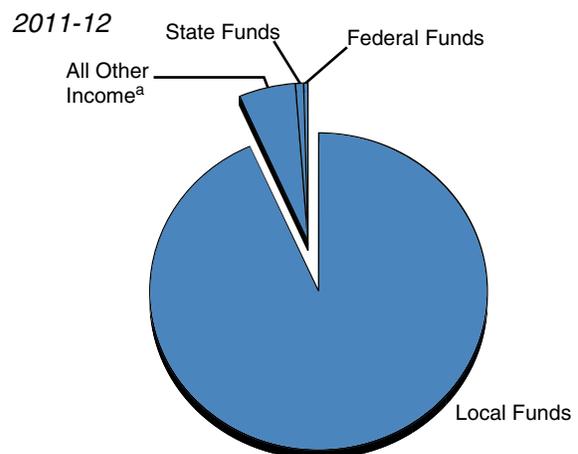
**Governments.** In California, local libraries are organized as one of four types of jurisdiction: county libraries, city libraries, special district libraries, or Joint Powers Authority libraries. Usually jurisdictions designate a central library to help coordinate activities among all the library branches (or sites) within the jurisdiction. In 2013-14, 183 library jurisdictions with 1,115 library branches operated in California. Local libraries’ responsibilities include hiring staff, conducting branch oversight, and managing various programs (for example, offering children’s story time and resume-building workshops). The state has a very limited role in local libraries’ daily activities.

### *Local Libraries Funded Mostly by Local*

**Governments.** As shown in Figure 1, most local library funding comes from local governments. In 2011-12, local libraries received over \$1.1 billion in funding from local governments—93 percent of their total funding. Libraries received \$67 million in funding from other income sources, such as fees, fines, and donations, which accounted for 6 percent

**Figure 1**

### Most Local Library Funding Comes From Local Sources



<sup>a</sup> Includes donations, library fines, fees, and private grants.

of total funding. Local libraries received less than 1 percent of their total funding from the state.

***State Funding for Local Libraries Usually Restricted to Statewide Priorities.*** In recent years, state funding for local libraries has been limited for certain statewide priorities that align directly with Chapter 1255, Statutes of 1977 (SB 792, Dunlap), also known as the California Library Services Act. This act requires that all state residents have access to enriching library resources and services regardless of their location. To meet this goal, the state has supported various programs that promote uniform access statewide, including local literacy programs and interlibrary loan programs.

### **Internet Service at Local Libraries**

***Legislature Directs State Library to Study Local Libraries' Internet Services.*** During budget hearings last year, the California Library Association (whose members consist of local libraries) testified that Internet speeds at local libraries in California are inadequate and requested state funding to increase these speeds. In response, the Legislature included language in the *2013-14 Budget Act* directing the State Library to perform a needs assessment and develop an associated spending plan to connect all local libraries to a statewide high-speed Internet network. The language specifically required the State Library to (1) evaluate local libraries' current Internet connectivity and expenditures; (2) identify options for connecting all libraries to high-speed Internet, including the option of using the CENIC; and (3) estimate the costs of the identified connectivity options. The budget language also required the State Library to identify available funding sources, including non-General Fund sources. The report was due February 1, 2014.

***Report Finds That Many Local Libraries Have Slow Internet Speeds.*** The State Library surveyed local libraries about their current

Internet service and received responses from 828 library branches (74 percent of all branches). All respondents reported being connected to the Internet. About 40 percent of library branches reported they operate at speeds the State Library has defined as very slow—between 1.5 and 10 megabits per second (mbps). This is similar to the speeds of many households. Another 40 percent of respondents reported having speeds between 10 and 100 mbps, which the State Library defines as slow. The remaining 20 percent of libraries reported operating at speeds between 100 mbps and 1,000 mbps or higher. The State Library defines these speeds as medium to fast. Typically, these speeds are not available to residential consumers and are used by businesses and governmental organizations. The survey further found that libraries with the slowest speeds generally are concentrated in rural areas in the northern and inland regions of the state, while libraries with faster speeds are concentrated in urban areas in the southern and coastal regions of the state.

***Report Estimates Local Libraries Spend in the Low Tens of Millions of Dollars Annually on Internet Service.*** The survey asked local libraries to report their annual Internet connectivity expenditures. Based on the survey responses, the State Library estimates that annual expenditures statewide range from \$8.5 million to \$18.9 million. (The main reason the range is so large is because only 66 percent of all libraries provided expenditure information, so costs for many libraries had to be extrapolated.)

***Report Finds That More Than Half of Library Jurisdictions Do Not Obtain Federal and State Internet Service Discounts.*** The report indicates that 44 percent of library jurisdictions that responded to the survey receive federal telecommunications discounts through the Universal Service Schools and Libraries Program—commonly known as E-Rate. The report also

indicates that 46 percent of library jurisdictions receive state telecommunications discounts through the CTF. (More information on both discounts can be found in the nearby box.)

***Report Presents Options for Improving Internet Speeds.*** The report offers three alternatives for improving local libraries' Internet speeds relative to the status quo, whereby libraries would continue to pay for and procure their own Internet service.

- The first alternative is for the State Library to oversee nine existing regional library consortia that would work cooperatively to purchase Internet service.
- The second alternative is to connect libraries to the California Government Enterprise Network, which provides Internet service to the California state government.
- The last alternative is to connect libraries to CENIC, which provides Internet service to four segments of California's public education system as well as to several private and out-of-state entities. In its report, the State Library endorsed the CENIC option. (Additional information about CENIC and its membership is provided in the nearby box.)

### **Two Discount Programs Available for Library Internet Service**

#### ***E-Rate Provides Large Discounts on Internet Service for Participating California Libraries.***

The Universal Service Schools and Libraries Program, more commonly known as E-Rate, is a federal program that provides telecommunications discounts to schools and libraries. The program is under the direction of the Federal Communications Commission. Discounts depend on (1) the poverty level of the community in which the school or library is located and (2) whether the community is determined to be rural or urban (rural communities qualify for higher discounts). Discounts range from 20 percent to 90 percent of the costs of eligible services, with California libraries receiving an average discount of 70 percent. Applicants must carry out a competitive bidding process to select the most cost-effective telecommunications provider and certify that they comply with the Children's Internet Protection Act (which requires the procurement of filtering technology against obscenity). Funding is provided by contributions from telecommunications providers, who usually pass through the cost in the form of a consumer surcharge. The E-Rate program was authorized to provide up to \$2.4 billion in discounts in federal fiscal year 2013.

***California Teleconnect Fund (CTF) Provides Additional Discounts of 50 Percent.*** The CTF is a state program that also provides telecommunications discounts to qualifying schools and libraries, as well as hospitals, health clinics, and community organizations. The California Public Utilities Commission (CPUC) administers the CTF program. The program provides a 50 percent discount on telecommunications and Internet services. In the case of schools and libraries, this discount is applied after federal E-Rate discounts. The fund is supported through a consumer surcharge on intrastate telecommunications services. The CPUC adjusts the surcharge rate periodically based on forecasted demand. For 2013-14, \$92 million is authorized for the program.

**CENIC Origins and Membership**

In 1997, the University of California (UC) and several private research universities joined together to form a nonprofit organization called the Corporation for Education Network Initiatives in California (CENIC). The CENIC was formed in order to develop a high-speed “backbone” network to support university research. Since that time, the California State University (CSU), California Community Colleges (CCC), and school districts also have joined CENIC. The UC, CSU, CCC, and schools are considered “public charter associates” of CENIC, while several private universities in California are considered “private charter associates.” Charter associates have representation on the CENIC board of directors. Public charter associates each pay \$4.5 million annually toward CENIC’s operations, while private charter associates pay an amount based on their usage and number of connections—between \$330,000 and \$372,000 annually. In addition, several in-state and out-of-state entities connect to CENIC-operated networks as “non-charter associates.” These entities are not represented on CENIC’s governing board and pay for their connection to CENIC based on usage. The figure shows current charter and non-charter CENIC associates, how many physical sites each associate has that connect directly to the CENIC backbone, and the annual fee each pays.

<b>CENIC Associates</b>		
<b>Charter Associates</b>	<b>Sites Directly Connected to Backbone<sup>a</sup></b>	<b>Annual Costs</b>
<b>Public</b>		
University of California	All ten campuses, including medical centers Office of the President and Office of State Governmental Relations Lawrence Berkeley National Laboratory	\$4.5 million
California State University	All 23 campuses and Chancellor’s Office	4.5 million
California Community Colleges	All 112 campuses and Chancellor’s Office	4.5 million
K-12 Education	California Department of Education 53 county offices of education (COE) and 18 other sites	4.5 million
<b>Private</b>		
University of Southern California	Main campus and health sciences campus Information Sciences Institute	372,000
Stanford University	Main campus and medical center Stanford Linear Accelerator Center Stanford Hopkins Marine Station	366,000
California Institute of Technology	Main campus and Jet Propulsion Laboratory <sup>b</sup>	330,400
<b>Non-Charter Associates<sup>c</sup></b>		
Carnegie-Mellon University, Silicon Valley	Pepperdine University	
Chapman University	University of San Diego	
NASA Ames Research Center	University of San Francisco	
Naval Postgraduate School	University of Pennsylvania, Wharton School, San Francisco	
Nevada System of Higher Education		
<sup>a</sup> Some charter associates connect additional sites but not directly to the backbone. For example, over 7,700 schools are connected to the backbone but virtually all of them connect through a COE. <sup>b</sup> CENIC indicates it charges the Jet Propulsion Laboratory an additional unspecified amount. <sup>c</sup> Annual costs vary based on usage and number of connections to the backbone.		

## Governor's Proposals

### ***Governor Proposes \$4.5 Million Annual Contract With CENIC to Increase Internet***

**Speeds.** The Governor's budget proposal implicitly is based on the CENIC option. The Governor's budget assumes contracting with CENIC would cost \$4.5 million annually (the same rate charged to all existing public charter associates). The contract would allow local libraries to use CENIC's Internet backbone. Libraries also would receive representation on CENIC's governing board. Additionally, CENIC would provide technical support, apply for federal E-Rate and CTF discounts on libraries' behalf, and negotiate discounts for libraries on Internet services from commercial providers. (As described below, libraries would need to continue to purchase Internet services, as well as potentially improved infrastructure such as fiber, from commercial providers for last-mile connections.)

***Governor Proposes \$2.25 Million for CENIC Contract From State General Fund, Remainder Likely From CTF.*** The Governor proposes that the state General Fund cover half of the \$4.5 million CENIC contract. The State Library's report suggests CENIC likely would obtain the remainder of funding needed to cover the contract from the CTF. The CENIC would submit the State Library's \$4.5 million Internet services invoice to the CTF, which would then reimburse CENIC for 50 percent of that charge (\$2.25 million).

***Two Ways Libraries Likely to Connect to CENIC Backbone.*** Under the Governor's proposal, CENIC would work with libraries to determine the best way to connect to the CENIC backbone. Figure 2 compares libraries' current connectivity model with the two ways libraries would be most likely to connect under the Governor's proposal.

- As shown under option 1 in the figure, some local libraries might connect directly to

the CENIC backbone. This would be most likely for local libraries located close to the backbone.

- As shown under option 2, a second way that local libraries might connect to the CENIC backbone is through another already connected site, such as a county office of education (COE) or a California Community College. This would be the way most local libraries likely would connect to the CENIC backbone.

### ***Libraries Responsible for Last-Mile***

**Connections.** Under the Governor's proposal, local libraries would be responsible for the infrastructure and operating costs of all last-mile connections. That is, libraries would pay for (1) connections between each of their library branches and their main library and (2) connections between their main libraries and the CENIC backbone or an existing CENIC-connected site. (Libraries also may incur some operating costs for "middle-mile" connections that run from a CENIC-connected site to the CENIC backbone. The CENIC-connected sites currently bear these costs but may require libraries to enter into memorandums of understanding to share them.) If a library has inadequate Internet infrastructure in its area to connect to the CENIC backbone or a CENIC-connected site, the library would have to cover the cost of updating its infrastructure. The infrastructure and ongoing operating costs of last-mile connections depend on the proximity of each local library site to its main library, the CENIC backbone, and CENIC-connected sites as well as the physical terrain and the existing Internet infrastructure between all these sites. CENIC indicates it would negotiate last-mile infrastructure upgrades and operating costs with commercial Internet providers on behalf of libraries. The Governor's proposal, however, does not include estimates of these costs.

**Governor Proposes \$2 Million From the General Fund for Equipment Grants.** In addition to the \$2.25 million General Fund for covering half of the CENIC contract, the Governor proposes \$2 million from the General Fund on a one-time basis to purchase networking equipment, such as routers and switches, which libraries would install at their individual locations. This funding would be spread across two years, with \$1 million provided in 2014-15 and \$1 million in 2015-16. Proposed budget bill language directs the State Library or local libraries to secure other non-General Fund resources to supplement the equipment grants,

though the language does not specify how much non-General Fund must be raised.

## Assessment

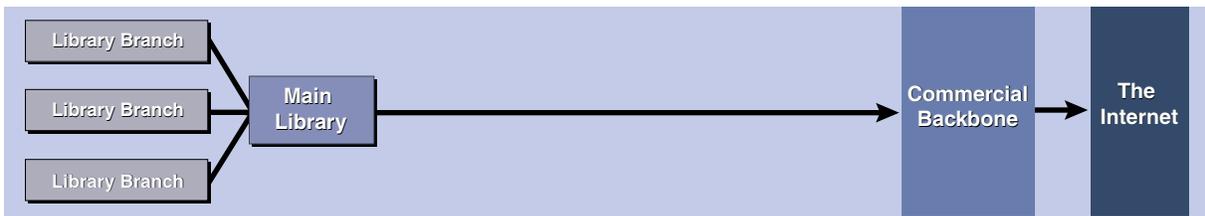
### Governor’s Proposal Unlikely to Increase Many Libraries’ Internet Speeds

**Libraries’ Internet Speeds Will Depend on Last-Mile Connection Speeds.** Connecting to the CENIC backbone will not necessarily increase Internet speeds for libraries. Instead, library Internet speeds will depend almost entirely on the speed of their last-mile connections, which are

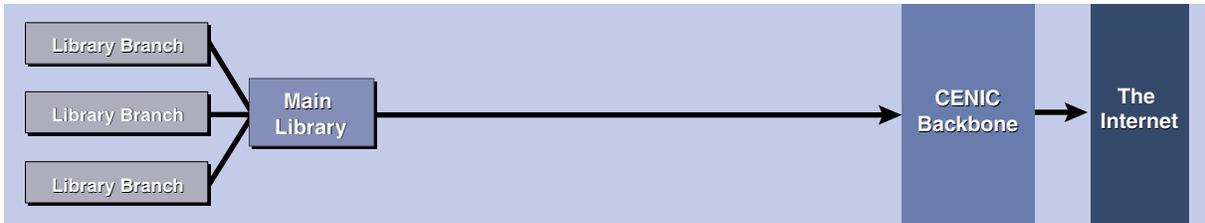
Figure 2

### Comparing Current Internet Connectivity Model With CENIC Connectivity Options<sup>a</sup>

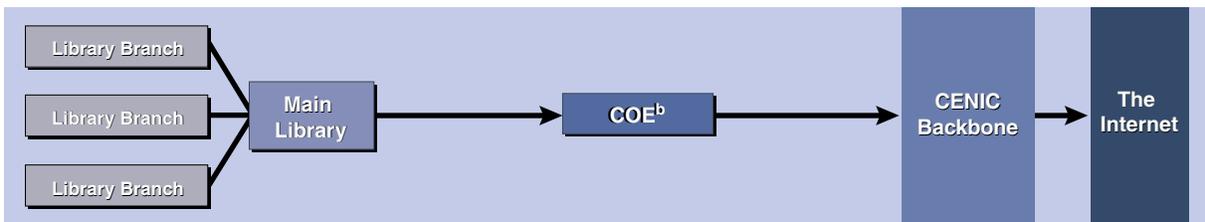
#### Current Internet Connectivity Model



#### Connectivity Option #1



#### Connectivity Option #2



<sup>a</sup> Distances not to scale. Distance from branches to main library and from main library to backbone or other sites vary significantly across the state.

<sup>b</sup> Could be any site—COE, CCC, CSU or UC—already connected to CENIC backbone. Libraries likely would enter into memorandums of understanding with these sites to gain access to their connections to the CENIC backbone, with some chance of incurring associated costs.

CENIC = Corporation for Education Network Initiatives in California and COE = county office of education.

provided by commercial providers. In order for libraries to obtain faster Internet speeds, they will need to purchase better Internet service from these providers. The Governor's plan, however, provides no money for libraries to purchase faster last-mile connection speeds. Instead, his plan indicates that CENIC will obtain savings for libraries by (1) obtaining federal E-Rate and CTF discounts on libraries' behalf and (2) negotiating bulk purchasing agreements with commercial providers for last-mile connections. His plan does not estimate the associated savings from the discounts or the bulk purchasing or ensure any such savings actually are used for purchasing faster last-mile connections.

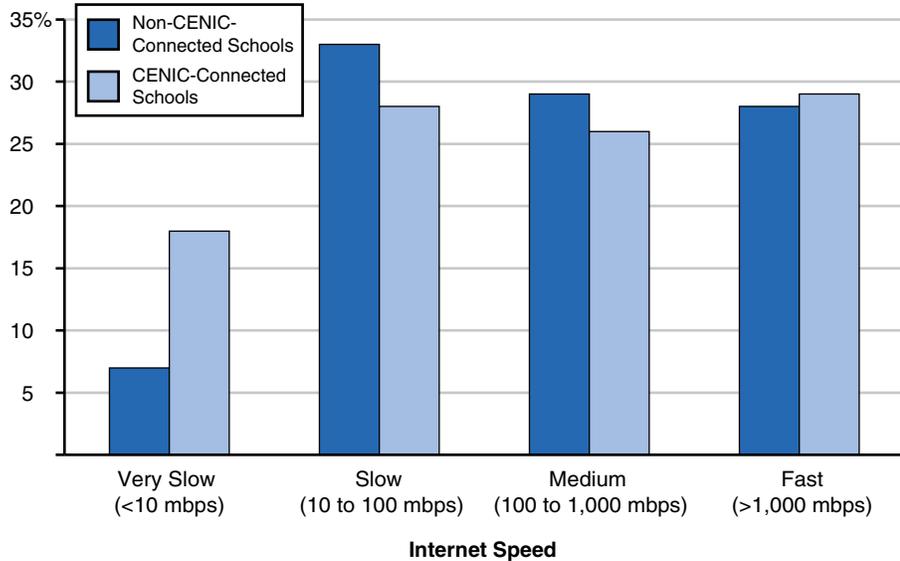
**Several Barriers Exist for Many Libraries to Obtain Faster Last-Mile Service.** The Governor's plan may not result in libraries purchasing faster last-mile connections for several reasons.

- **Local Governments May Restrict Libraries' Ability to Purchase Faster Service.** Libraries often are constrained by procurement rules set by the local government that oversees them. For example, city and county governments might not allow libraries to participate in CENIC's bulk purchasing agreement because many cities and counties already use a state-negotiated bulk purchasing agreement called CalNET. (CalNET does not necessarily increase speeds for its clients, but it can save them money on their connection costs.) In addition, the State Library indicates that in the past when some libraries have obtained E-Rate and CTF discounts, their associated local governing body has redirected the savings to the city or county General Fund. This means libraries may not necessarily be able to use any savings to purchase faster last-mile services.
- **Libraries May Wish to Redirect Savings Toward Other Priorities.** Even if libraries were able to keep the savings acquired on their behalf by CENIC, no assurances are included in the Governor's proposal that these savings will be used to purchase faster Internet speeds. Libraries might prefer to pay less for their current speeds and redirect the savings towards other priorities (for example, staffing).
- **For Many Libraries, Fast Speeds Impossible Without Costly Infrastructure Updates.** According to CENIC, as many as 50 percent of libraries would need to acquire updated Internet infrastructure in their area to realize fast Internet speeds. Libraries would be responsible for the costs associated with these potentially costly infrastructure updates. While the report indicates that CENIC will help libraries negotiate these costs with commercial providers, the Governor's proposal includes no assurances that libraries will choose to incur these costs. Moreover, commercial providers may not even agree to update infrastructure in areas that are not commercially viable. (The nearby box provides information on current state efforts to help communities with limited Internet infrastructure.)

**Data on Schools' Internet Connectivity Suggests These Barriers Will Be Significant for Libraries.** Starting in 2000, some schools began connecting to the CENIC backbone. Although the state has paid more than \$200 million since that time to allow schools to connect to and use the CENIC backbone, many individual schools connected to CENIC still operate at slow speeds. This is because the speeds of these schools' last-mile connections remain slow. The Imperial COE

(ICOE), which oversees schools' connectivity to CENIC, indicates that last-mile speeds have remained slow at some schools for two main reasons: (1) schools are not willing to pay for faster last-mile speeds and (2) some schools are located in areas with outdated Internet infrastructure. As shown in Figure 3, data from ICOE shows nearly half of schools connected to CENIC have slow or very slow Internet speeds (as defined by the State Library). Moreover, the distribution of speeds of schools connected to the CENIC backbone is similar to that of schools that have opted not to connect to CENIC.

**Figure 3**  
**Internet Speeds at Schools Connected to CENIC's Backbone Are Similar to Those Not Connected<sup>a</sup>**



<sup>a</sup> Shows data for 6,922 CENIC-connected schools and 1,015 non-CENIC-connected schools together representing roughly 90 percent of all public, noncharter schools in California. Speed categories match those included in the State Library's 2014 connectivity report.  
 CENIC = Corporation for Education Network Initiatives in California and mbps = megabits per second.

**Data Provided on Costs Inadequate**

***Conflicting Information Provided Regarding Cost for CENIC Contract.*** The CENIC has provided conflicting information as to why it would charge \$4.5 million for libraries to access

**Discount Program Available to Improve Internet Infrastructure**

***California Advanced Services Fund (CASF) Subsidizes Commercial Providers to Improve Internet Infrastructure.*** The CASF is a state program that subsidizes commercial providers who extend or update Internet infrastructure in unserved and underserved communities. The California Public Utilities Commission (CPUC) administers the CASF. The CASF has three components: (1) a grant account, which provides grants to commercial providers to cover up to 70 percent of Internet infrastructure construction costs; (2) a loan account, for supplemental financing up to 20 percent of construction costs for CASF grant projects; and (3) a regional consortia account, which provides funding for a CPUC-established nonprofit organization to work with regional consortia to promote high-speed Internet use in unserved and underserved communities. The CASF is supported through a consumer surcharge on intrastate telecommunications services. In 2013-14, the CASF is authorized to provide a total of \$59 million for the program.

its backbone and receive related services. One explanation provided by CENIC is that \$4.5 million is the rate paid by all public charter associates, regardless of how much they use the backbone and related services. A second explanation is that it would cost CENIC \$22.5 million to upgrade its backbone to account for libraries' use and that this cost would be spread over five years (resulting in \$4.5 million annually). A third explanation is that half of the \$4.5 million is for improvements to the backbone and the other half is for related services. Because of this conflicting information, determining whether the \$4.5 million in proposed state funding actually would be used to support library connectivity is difficult.

**Concerns Regarding Availability of CTF to Pay for Half of CENIC Contract.** As mentioned earlier, CENIC plans to recoup half of the cost of the CENIC contract by claiming Internet discounts from the CTF. However, the Governor's budget does not make this assumption in its projections of expenditures from the CTF. In order to pay for the additional discounts, the California Public Utilities Commission (CPUC) indicates it likely would have to increase the CTF surcharge. (Using current-year telecommunications bills, we estimate the surcharge would increase from 0.56 percent to at least 0.60 percent of a consumer's total phone bill in the first year.) Though this would make funds available to pay for discounts for libraries, a recent CPUC staff proposal to adjust how the fund reimburses claimants might diminish CENIC's ability to recoup 50 percent of the \$4.5 million contract. The CPUC staff proposal would adjust the reimbursement rates from 50 percent to a fixed dollar amount, which could be less than \$2.25 million. The CPUC will make a decision on this rate restructuring proposal in the summer of 2014. The administration's plan does not address how any resulting funding shortfall would be addressed.

***Insufficient Justification for Equipment Costs.***

The administration has not been able to provide any detailed information on how it determined that \$2 million would be needed for equipment upgrades at libraries to connect to CENIC. The CENIC has indicated that this amount is loosely based on its experience connecting schools but also has not provided more detailed cost estimates.

***Costs to Local Libraries Not Identified in State Library Report But Could Be Significant on a Statewide Basis.*** Although the Legislature tasked the State Library with estimating the total project costs of the identified connectivity options, the State Library's report only estimates the costs associated with contracting for access to the CENIC backbone and for basic equipment to connect to CENIC. Notably, the report does not estimate the cost for libraries to (1) undertake any necessary Internet infrastructure upgrades to actually connect to the CENIC backbone at high speeds and (2) purchase last-mile connection services at high speeds. Using assumptions made by CENIC in a recent white paper estimating the cost to update infrastructure for schools to achieve speeds of at least 100 mbps, we estimate the infrastructure costs for libraries to achieve similar speeds would be \$85 million statewide. This figure does not include any additional ongoing costs for high speed last-mile services from commercial providers

## Recommendation

***Recommend Legislature Reject Governor's Proposal.*** To summarize, we have five major concerns with the Governor's proposal to connect libraries to the CENIC backbone.

- The Governor's proposal would not increase Internet speeds for many libraries because (1) local governments may restrict local libraries' ability to purchase faster service, (2) libraries themselves may not

choose to purchase faster speeds, and (3) obtaining significantly faster speeds would be impossible for as many as half of local libraries without costly infrastructure upgrades in their area.

- The \$4.5 million requested for the CENIC contract may not reflect the actual cost for libraries to use the CENIC backbone and receive related services.
- The plan does not address how a potential shortfall in funding for the CENIC contract would be addressed if CPUC enacts a different reimbursement structure for CTF claims.
- The proposal lacks sufficient cost data to support the request for \$2 million in equipment.
- The plan does not estimate the costs for local libraries to access the CENIC backbone, but available data suggest these costs likely are significant.

Based on these concerns, we recommend the Legislature reject this proposal.

***Recommend Legislature Focus on Existing Programs to Increase Internet Speeds.*** The state already has in place several programs designed to improve Internet access and speeds for local libraries as well as other public and private entities. As referenced in several places throughout this report, the state provides substantial discounts on Internet service for libraries and certain other organizations, negotiates bulk purchasing agreements with commercial Internet providers for local governments, and offers subsidies to commercial Internet providers to build infrastructure in unserved and underserved areas.

Before the Legislature considers new solutions, we recommend it examine how well its existing programs are working and, to the extent needed, explore ways to improve them. For example, as highlighted earlier in the report, data indicate that about half of all local libraries choose not to access substantial Internet discounts that currently are available to them. The Legislature could examine why certain libraries do not access these discounts and then explore ways to increase their participation in discount programs. Similarly, data presented earlier in the report show that some local libraries have very slow Internet speeds. The Legislature could examine whether these libraries access discount programs, participate in bulk purchasing agreements, and have benefitted from Internet infrastructure developments. Depending upon what the Legislature learns, it then could explore ways to rectify shortcomings with one or more of its existing programs.

***Any Improvements to Existing Programs Could Result in Widespread Benefits.*** If the Legislature were to identify shortcomings with one or more of its existing programs, making refinements could benefit not only local libraries but various other public (and even private) entities. For example, finding ways to (1) increase participation in the state's discount program, (2) encourage more entities to participate in bulk purchasing, and (3) create or upgrade infrastructure in very remote areas of the state could have benefits not only for libraries but also schools, hospitals, health clinics, community organizations, and various other public agencies. In all these ways, refining existing programs could have broader public benefits than creating a questionable new solution tailored to a single type of public agency (as the Governor's proposal does solely for local libraries).

**LAO Publications**

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This brief was prepared by Natasha Collins and reviewed by Paul Golaszewski. The Legislative Analyst's Office (LAO) is a nonpartisan office that provides fiscal and policy information and advice to the Legislature.

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