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CENIC

CENIC & CALIFA Connecting California Libraries
High-Speed Broadband in California Public Libraries



Gigabit Libraries for California. Work is underway to bring high-speed broadband to all of California's public libraries by connecting them to CalREN, a high-capacity 3,800-mile fiber optic network operated by CENIC, the Corporation for Education Network Initiatives in California, a non-profit California corporation that connects California to the world. The Califa Group, a non-profit library consortium, has been engaged by the California State Library to manage the rollout process with CENIC. After two years of implementation, 129 out of 176 of the eligible library jurisdictions in the state are either connected or in the process of connecting to CalREN.

Because libraries are central to their communities, connecting them to CalREN will effectively provide all of California's residents with high-performance access to the myriad resources that constitute 21st-century digital citizenship, and will provide California with all of the economic benefits of a digitally empowered population.

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- **Expand your connectivity and get the right level of service for your needs.** Most library jurisdictions connecting to CalREN will be connected at 1,000 Mbps or 1 Gigabit. Some jurisdictions may choose a higher speed (for example, 10 Gigabits) or lower speed (for example, 100 Mbps) connection, if desired. CENIC does not limit its members to a one-size-fits-all solution. Members are always able to choose the right level of services for them, with cost-efficient scalability as their needs evolve.
 - **Count on access to the most advanced technologies.** CENIC has its roots in research and education. Since it is a member-driven organization, the focus is on delivering a high level of service to members as defined by members. The CalREN network is reliable and carefully monitored by a 24x7x365 network operations center. A high level of bandwidth is available to all organizations on the network because CENIC engineers continuously monitor shared network capacity to ensure available bandwidth is always more than the demand.

The network is more robust than typically expected from a commercial network, and engineers consult with members to solve network performance issues if they arise. CENIC actively pursues peering relationships with other network providers, including other research and education networks around the world and commercial networks. Use of CalREN's peering services also provides high-speed access to many data-intensive sites, such as Amazon, Google, and Microsoft, which many library patrons frequent.

• **Obtain federal E-rate discounts on one-time and recurring costs.** Because of CENIC's ability to file for E-rate discounts for libraries as a California Library Consortium, all libraries are able to receive these discounts on both one-time and recurring costs without having to go through the complicated process of filing themselves. The statistics on E-rate participation for library jurisdictions joining in 2015 helps demonstrate this fact: 32 jurisdictions will be receiving E-rate discounts for the first time by participating in the CENIC managed state-wide consortium. These jurisdictions will benefit from receiving E-rate discounts of \$712,000 on an annually recurring basis and a one-time discount of \$343,710 for non-recurring costs such as construction.

• **Expand your partnerships with other organizations.** Public libraries become part of a statewide high bandwidth intranet, connecting them to existing and prospective school and college partners. A connection to CalREN enables libraries to become active members of the larger research and education community to which they have always belonged. They can collaborate with K-12 schools, universities, and other institutions connected to CalREN, exchange content, and conduct joint work. They also have access to other national and international networks such as Internet2 and Pacific Wave. Members share the progress made by the entire CENIC community and connect with peers at CENIC-hosted workshops and conferences.,,



• **Create new programs and services enabled by a high speed connection to CalREN.** Prior to this project, insufficient connectivity levels prevented many libraries from offering programs and services that would be of value to their patrons as well as to the libraries themselves. Video-conferencing, streaming media, content creation, longer sessions on terminals, wireless access, and collaborative engagement with other libraries as well as engagement with arts, cultural, and research and education institutions throughout the state and beyond are simply not possible when circuit speeds are slow and circuits are congested. When libraries are digitally enabled, they can achieve great things. From teen centers to business centers to live events streamed into the library, jurisdictions are already making use of their high-speed broadband connection.

• **Join forces with an influential policy and funding advocate.** CENIC is a respected advocate and thought leader in policy making and funding decisions. Owned by its charter members in education and research, CENIC represents their vital interests in helping shape a regulatory environment that supports connected communities and makes wise investments for the future.

* **Joining the project.** Public library jurisdictions in the state of California are eligible to connect to CalREN in Year 3 of the project, which begins in July, 2016. For more information, contact our project team at: broadband@califa.org.