

California  
K-12 System

1 Gb/s	Santa Maria Joint Union High School District
1 Gb/s	Tehama County Office of Education
1 Gb/s	San Joaquin County Office of Education
1 Gb/s	Humboldt County Office of Education
10 Gb/s	Sacramento County Office of Education
1 Gb/s	Lake Tahoe Unified School District
10 Gb/s	Los Angeles County Office of Education
10 Gb/s	Riverside County Office of Education
1 Gb/s	Glenn County Office of Education
1 Gb/s	Siskiyou County Office of Education

California Community  
Colleges

1 Gb/s	Imperial Valley College
1 Gb/s	Monterey Peninsula College
1 Gb/s	Mt. San Jacinto College
1 Gb/s	Allan Hancock College
1 Gb/s	Yuba College
1 Gb/s	Los Rios Community College District:
	American River College
	Cosumnes River College
	Folsom Lake College
	Sacramento City College
1 Gb/s	Chaffey College
1 Gb/s	Contra Costa Community College District:
	Contra Costa College
	Diablo Valley College
	Los Medanos College
	San Ramon Campus
	Brentwood Center
DS-3	CCC Community Based Online Learning Connections:
	Karuk Tribe Community Center, Orleans
	Aspiranet DBA Sunset Neighborhood Beacon Center, San Francisco
	Proteus, Inc., Sacramento
	Boys and Girls Club, Goleta
	Foundation for Successful Solution, Los Angeles
	Center for Academic and Social Advancement, Solana Beach
	Amador-Tuolumne Community Action Agency, Ione

California State  
University

DS-3	CSU Office of Advocacy and State Relations	CENIC also completed a transition of campus-managed to CENIC-managed routers
1 Gb/s	CSU Fullerton Irvine Campus	at various CSU campuses connecting to
1 Gb/s	Humboldt State University	CalREN via SONET circuits.
1 Gb/s	Sonoma State University	

## University of California

1 Gb/s UC Irvine CalREN-DC  
1 Gb/s UC Irvine CalREN-HPR  
200 Mb/s UC Berkeley International House

## Charter Private Universities

1 Gb/s Caltech Thirty Meter Telescope Pasadena Headquarters

## CalREN Associates

100 Mb/s University of Pennsylvania Wharton West  
250 Mb/s University of San Diego  
10 Gb/s University of Arizona/Arizona State University  
1 Gb/s California Telehealth Network

## CalREN: Creating Cost Savings in Tough Times

The responsibility felt by the CENIC Associate community to continue their tradition of innovation and meet operational needs does not decrease during challenging budgetary times. Thus CENIC is proud to have achieved so much during this past fiscal year to enable the Associate community to “do more with less,” fostering innovation and providing services to their faculty, students, and staff in more cost-effective ways.

- ▶ In July 2010, CENIC and **Pacific Northwest GigaPoP** announced 10 Gigabit peering connections with Amazon Simple Storage Service (S3) and Amazon Elastic Compute Cloud (EC2). Research and education are increasingly global in scope, and these connections enable sharing, accessing and manipulating data from anywhere in the world. With these connections to Amazon Web Services, both the CENIC and PNWGP communities obtain maximum speed and benefit from AWS cloud services and can take advantage of their rapid scalability without investing scarce time or money in the creation of project-specific infrastructure.
- ▶ The **California Teleconnect Fund** program or CTF provides a 50% discount on selected telecommunications services to qualifying schools, libraries, government-owned and operated hospitals and health clinics, and community based organizations. While California’s Community College System began to receive CTF discounts on last- and middle-mile circuits in 2008, the 2010-11 fiscal year saw CENIC begin to receive CTF discounts on backbone infrastructure on behalf of the state’s community colleges and K-12 system, resulting in a significant cost savings for those segments.
- ▶ As part of an ongoing pursuit of efficiency and minimizing Associate costs, CENIC carried out a large-scale analysis of Associate network traffic on circuits used by certain sites to connect to the CalREN backbone. During the 2010-11 fiscal year, the consolidation of traffic that resulted from this analysis together with the installation of new point-to-point circuits resulted in significant cost savings as well.
- ▶ CENIC operates multiple connections to the commodity Internet from CalREN, and thanks to CENIC, the price of such traffic has been steadily falling for the past decade. As a result of continued aggregation and negotiations, ISP traffic at last become too cheap to meter during the 2010-11 fiscal year. As a result, from \$260/Mb/month in 2002, CENIC Charter Associates now enjoy unmetered access to the commodity Internet, the cost of which to CENIC is low enough to include in their annual Charter Associate fees.