



LEADING THE WAY TO TOMORROW'S INTERNET



[About CENIC](#)
[Network](#)
[Services](#)
[Projects](#)
[Associates](#)
[Publications](#)
[Events](#)


PUBLICATIONS

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Welcome to CENIC Today, the monthly newsletter of the Corporation for Education Network Initiatives in California.

QUICK LINKS

[CENIC Today](#)
[DCP Today](#)
[GB Today](#)
[Brochures](#)
[Reports](#)
[Presentations](#)
[Video Presentations](#)
[Other Documents](#)
[CENIC Home](#)

IN THIS ISSUE:

CENIC News

- President's Message
- CENIC & Cisco Hosted QoS Seminar
- OptIPuter Connects Using CalREN-XD
- San Francisco Institutions Collaborate at the Speed of Light
- On the Road to a Gigabit Broadband: Are We There Yet? A Self-Assessment Guide for Communities

National Networking News

- ED Applies Data to Teacher Development
- FCC Seeks to Document eRate Best Practices
- Identity and Access Management in Higher Education Extending the Reach With Middleware
- Teachers: Limited Time, Access Cut School Tech Use
- SBC is Hotspot Hero?
- Broadband: Breaking the Digital Gridlock
- Report: VoIP Is Ready For Big-Time Breakout

About CENIC

- About CENIC
- Subscription Information

CENIC News

President's Message

As we begin a new fiscal year, it is a time to contemplate what we've achieved last year and to look forward to a new year of challenges. Most of you are probably aware that there has been a change of leadership at CENIC and as a result, I have the privilege of writing this column for the first time. Tom West, who was CENIC CEO and President for the last five years, has joined National LambdaRail as its first full-time President and CEO effective July 1 and I've taken over the reins of CENIC. As I do so, I am awed by all that CENIC has accomplished during Tom's tenure. Stuart Lynn, CENIC's first President, was responsible for the vision and foresight that created CENIC in 1997. Tom was responsible for making CENIC what it is today. For that, California education owes him a big debt of gratitude. CENIC's CalREN is simply the most complete, largest and most feature rich research and education network in the country and perhaps the world.

I consider last year a pivotal one for CENIC. Through the great work of many individuals from CENIC's participating institutions and from within CENIC, including our outstanding advisory councils and partners from the commercial sector, we accomplished what was envisioned and planned -- the creation of one consolidated education and research network in California, based on owned fiber and using high quality equipment. This network provides the latest features and functionality required by California's education community, from the ability of researchers to develop the next generation internet technologies to the ability to support high quality video in support of K-12. We continue to build on this accomplishment. For example, to the benefit of all CENIC institutions, we've made great strides in establishing relationships with peer networks worldwide.

Our challenges as we move into the new fiscal year, like those last year, are many. These challenges include:

- Successfully responding to the needs of a larger and more diverse constituency who participate in our multi-tiered statewide network;

- Determining how we respond to requests to serve geographical areas outside California as well as constituencies other than research and education;
- Embracing a new type of involvement with the K-12 community as the contractual relationship with this sector evolves as a result of a change in how the State funds K-12's use of the network;
- Finding ways of working with the research community to facilitate harnessing the power of the network for their work;
- Responding to the need for higher capacity networking to faculty, staff, teacher and student homes; and,
- Planning how we can keep our just-built network current in terms of network technologies and capacity.

To address these and other opportunities depends on all of you, the CENIC community. CENIC's strength is the result of the participation of talented individuals from across our research and education communities. CENIC's accomplishments are really those of our community - from the CENIC Board, to our advisory groups, to representatives from each of the educational segments, to our commercial partners. I look forward to working with each of you in the coming years to help further the goals of California's educational and research communities.

Source: Jim Dolgonas, CENIC

CENIC & Cisco Hosted QoS Seminar

CENIC, in conjunction with Cisco Systems, hosted on June 25 a day-long seminar on Quality of Service (QoS) technologies. Attended by approximately 40 network managers from CalREN/DC sites, this seminar presented information on Cisco's QoS implementation and the use of those technologies on the CalREN/DC backbone, as well as how they can be best used in campus networks in support of the CalREN Video Services (CVS) project.

Slides from the seminar are available online at <http://www.cenic.net/operations/documentation/> .

Source: Brian Court, CENIC

OptIPuter Connects Using CalREN-XD

One of CENIC's core goals in developing an optical backbone has been to create an infrastructure able to support network services dedicated to scientific research in networking and applications which required dedicated network paths. This capability, known as the XD (for eXperimental/Developmental) layer of the CalREN optical network, is being demonstrated now as CENIC deploys six Gigabit Ethernet waves across CalREN in support of the OptIPuter research program being led by the California Institute for Telecommunications and Information Technology (Cal-IT)2 .

The 'OptIPuter' is a five year research program led by UCSD and the University of Illinois at Chicago (UIC), in partnership with SDSU, USC/ISI and UCI in California and Northwestern University in Illinois, and also involving the San Diego Supercomputing Center (SDSC) and the other TeraGrid sites. According to its web site at 'www.OptIPuter.net', the OptIPuter is "a powerful distributed cyberinfrastructure to support data-intensive scientific research and collaboration". The CalREN XD network is providing the inter-site connectivity as one part of this infrastructure.

The initial complement of OptIPuter waves consists of six GigEnet waves, each providing a dedicated end-to-end connection to the OptIPuter network at UCSD – two from UCI, two from the Information Sciences Institute (ISI) at USC, and two to the CENIC hub site in downtown Los Angeles for connection over a carrier's WAN to UIC in Chicago and to another OptIPuter participant – the Goddard Space Flight Center in Maryland. That CENIC was able to implement these connections within six weeks (and for the relatively small cost of added components) acts as a "proof of concept" of the overall CalREN optical design objective.

Cisco Systems' assistance in providing necessary optical components quickly was also critical to meeting the short turnaround required to meet the OptIPuter's goals, Cisco's cooperation and support is an indication of the underlying vendor partnerships with the R&E community that are a key component of CalREN optical network development, in particular in support of CalREN-XD services.

Source: Greg Scott, CENIC

San Francisco Institutions Collaborate at the Speed of Light

San Francisco State University (SFSU) is leading an exciting new effort in the Bay Area to bring next-generation Internet access and applications to their partners: educational institutions, government agencies, major corporations, small businesses, and community-based organizations. Leveraging the development of a City College of San Francisco fiber network throughout the region, SFSU is working with Fuji-Xerox to begin testing and deploying two network media tools that enhance learning, collaborative video and sound distribution, and e-government tools.

These network media tools allow testing via fast networks of collaborative video/sound applications and editing and postproduction from remote platforms. They are also being incorporated in the design and execution of next-generation distance learning applications.

On June 26, SFSU kicked off the effort with a celebratory dinner including other partners in this research effort: UCLA, Arizona State, the City and County of San Francisco, Fuji Film, EdNet, Skywalker Sound, MacroMedia, Zoetrope, Youth Radio, CENIC, Local 350 International Brotherhood of Teamsters, and the San Francisco Film and Video Arts Commission.

Source: Susan Estrada, CENIC

On the Road to a Gigabit Broadband: Are We There Yet? A Self-Assessment Guide for Communities

The new "On the Road to a Gigabit Broadband: Are we there yet? A Self-Assessment Guide for Communities" is now available on the web at <http://www.cenic.org/guide/>.

This guide is designed to provide a benchmark of your community's current readiness to participate in the enormous economic, social, governmental and personal changes that high-speed communications entail.

More importantly, the guide provides a vision of specific steps and actions your community—government, businesses, schools, community groups and citizens—can take to benefit from these changes. Educational institutions can take a leadership role by using the guide to get their communities on the road to a gigabit.

National Networking News

ED Applies Data to Teacher Development

Federal education officials are ratcheting up the stakes for teacher professional development. In a pilot project that began last fall, officials hope to learn whether software can be used to track and analyze the effectiveness of a district's staff training programs in much the same way it can be used to gauge the effectiveness of classroom instruction.

Source: eSchool News, <http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=5188>

FCC Seeks to Document eRate Best Practices

The Federal Communications Commission (FCC) is planning to hold an eRate symposium this fall to highlight success stories from school and library recipients nationwide. Sources close to the eRate see the event as a much-needed attempt to offset negative publicity surrounding the \$2.25 billion-a-year program, which provides discounts on telecommunications services and internet access to eligible institutions.

Source: eSchool News, <http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=5185>

Identity and Access Management in Higher Education Extending the Reach With Middleware

How can middleware tools help higher education institutions strengthen and standardize identity and access management? Extending the Reach (ETR)—a partnership of the NMI-EDIT Consortium of Internet2, EDUCAUSE, and the Southeastern Universities Research Association (SURA) with several statewide university systems and regional networks—will explore campus middleware delivery and support models that demonstrate new approaches to electronic resource sharing and link to the emerging national and global trust fabrics.

Source: NMI-Edit, <http://www.nmi-edit.org/etr-62804-pr.html>

Teachers: Limited Time, Access Cut School Tech Use

Classroom teachers are using technology more than ever before to improve teaching and learning. But even as their sophistication with computers and the internet grows, other barriers are keeping them from using technology to its full potential, according to a survey released June 22 at the National Educational Computing Conference in New Orleans.

Source: eSchool News, <http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=5131>

SBC is Hotspot Hero?

They're late to the game, but they're ready to party: It's a funny thing. When SBC Communications first announced their FreedomLink plans last year with plans build 6,000 hotspots over a couple of years, it seemed like yet another announcement of large numbers with no track record. Cometa was still on its 20,000 hotspots prediction and had only a handful. McDonald's hadn't decided its partner and was in limited trials. Wayport seemed stuck on hotels. And T-Mobile stayed focused—as it still does—on a few ubiquitous chains.

In the space of a few months, SBC has moved from last man in, to practically first mover.

Source: Wi-Fi Networking News, <http://www.wifinetnews.com/>

Broadband: Breaking the Digital Gridlock

High-speed Internet access is rapidly evolving from a Web-surfing luxury into an everyday necessity. But the development of broadband remains stunted by market uncertainty and mind-numbing bureaucracy.

This special series identifies the crucial elements of any policy agenda aimed at building a national broadband network. In its examination of the issue's many complexities, the report includes a CNET News.com-Harris Interactive Poll of about 1,000 Internet users nationwide.

Source: CNet News.com, http://news.com.com/Broadband%3A+Breaking+the+digital+gridlock/2009-1034_3-5261275.html?tag=nefd.lede

Report: VoIP Is Ready For Big-Time Breakout

Internet telephoning has been something of a sleeping giant that is finally being aroused, as major carriers begin spending billions on the emerging technology, according to a study on VoIP and next-generation voice released this week.

Infonetics Research estimates that spending on next-gen voice gear worldwide was \$1.2 billion in 2003. It will jump to \$4.8 billion by 2007, said Infonetics' directing analyst Kevin Mitchell.

Source: Networking Pipeline, <http://www.networkingpipeline.com/news/23903555>

About CENIC

CENIC is a not-for-profit corporation serving California Institute of Technology, California State University, Stanford University, University of California, University of Southern California, California Community Colleges and the statewide K-12 school system.

CENIC's mission is to facilitate and coordinate the development, deployment and operation of a set of robust multi-tiered advanced network services for this research and education community.

More information about CENIC can be found at <http://www.cenic.org>.

Subscription Information

You can subscribe and unsubscribe to CENIC Today via the web at: <http://lists.cenic.org/mailman/listinfo/cenic-today>

Keep track of the Digital California Project and the One Gigabit or Bust Initiative by visiting the CENIC publications page or by subscribing directly to the publications. Visit <http://www.cenic.org/pubs/> for more information.

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