



## LEADING THE WAY TO TOMORROW'S INTERNET


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


## PUBLICATIONS

**Volume 8, Issue 2**  
**February 28, 2005**

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

- NOC Report
- CENIC 2005 is Almost Here
- CENIC Project Activities

#### National Networking News

- Spammers Seeking Out Instant Messengers, Survey Shows
- New Program Helps Girls Get 'IT'
- Technology-Enabled Classrooms: Simplicity and Uniformity of Tools Make Them Truly 'Smart'
- Mapping Human Genetic Variation Across Populations
- 10 Million iPods, Previewing the CD's End
- Internet2 Announces Key Milestone in Its Hybrid Optical And Packet Infrastructure Initiative
- San Diego County Real-Time Very High Rate High-Precision GPS Network Interfaces via HPWREN
- Wireless LAN Group Takes Step Toward High-Speed Standard

#### About CENIC

- About CENIC
- Subscription Information

#### CENIC News

##### NOC Report

In order to ensure that CENIC is able to provide ongoing NOC services in the case of a disaster that renders the primary NOC site in Cypress unusable, CENIC has developed a Disaster Recovery Plan (DRP). Phase 1 of the DRP defines procedures and methods of recovery for critical NOC services, including use of a backup facility. Agreement has been reached with UCI to serve as an alternate DRP facility site. Critical tools to be housed at UCI have been identified, and necessary equipment has been configured and deployed. Testing to confirm the ability to restore functionality is in progress and scheduled to be completed in the next few months. CENIC gratefully acknowledges the cooperation and help of Mike Scott and his staff at UCI. They have been instrumental in planning, site preparation, and implementation of this crucial plan.

As anticipated in the last issue of CENIC Today, CENIC's Network Operations group has recently initiated a Customer Satisfaction Survey. In this initial phase, when a ticket is considered "resolved," the ticket resolution notice, which is sent via email to the original requester, will include a link to the survey. Our thanks in advance to all who take the time to respond to this short survey when prompted.

Source: Sherilyn Evans, CENIC

##### CENIC 2005 is Almost Here

CENIC 2005-Pathways to Discovery is right around the corner. The conference, which will take place March 7-9 at the Ritz Carlton Marina del Rey, has shaped up to be an exciting event.

Online registration will close at noon on Thursday, March 3rd. Register today at <http://www.cenic.org/events/cenic2005/index.htm>.

Two dynamic keynotes are planned. Monday's keynote, Susan Kennedy, a commissioner on the California Public Utilities Commission, has focused on telecommunications issues. On Tuesday, kc claffy of the Cooperative Association for Internet Data Analysis (CAIDA) will make her presentation on the Top Problems of the Internet and What can be Done to Help.

As always, the conference will provide an opportunity to network with colleagues from around the state and across the country.

Register today and bookmark the conference pages, <http://www.cenic.org/events/cenic2005/index.htm>.

To make your hotel reservations online, visit <https://reservations.ritzcarlton.com/ritz/reservation/availability.mi?propertyCode=LAXMD&gc=CENCENG>

We look forward to seeing you in Marina del Rey.

CENIC 2005 is sponsored in part by generous donations from the following companies:

- Titanium Sponsor: Cisco Systems
- Gold Sponsors: Juniper Networks & Radware
- Silver Sponsors: Canon, Level(3), Mirage Networks, Movaz Networks, SBC & Verizon

#### **CENIC Project Activities**

In an effort to efficiently communicate the status of our various initiatives and project activities to member associates and stakeholders, we are now publishing project descriptions and schedules online as opportunities and requests come to fruition. Simply go to the Projects menu at the CENIC website (<http://www.cenic.org/projects/index.htm>) where project descriptions and schedule updates will be posted on a regular basis. For those needing more detailed information than what is available online, feel free to contact Ed Smith at [esmith@cenic.org](mailto:esmith@cenic.org), 714-220-3453.

#### ***Coachella Valley Fiber Project***

This project represents a new dark fiber build-out to the greater Coachella Valley area from Riverside and south from Palm Desert into Imperial County. It establishes new backbone hub sites at UCR and at the Palm Desert Educational Complex. The fiber construction work is underway and a preliminary construction schedule has been posted.

#### ***CUDI/CLARA Project***

This project will increase bandwidth from a DS3 to a 1 Gig to CUDI, Mexico's research and education network and provide a separate 1 Gig path from CLARA, Latin/South America's research and education network, to San Diego for connection to CalREN. The project is funded by NSF and will entail obtaining fiber over which additional capacity and network connections can be provided in the future at relatively small additional costs. The design and engineering specifications are being finalized. A deployment schedule is not yet available.

#### ***Southern California Backbone Redesign Project***

This project is related to the Coachella Valley fiber project and involves changes to the CalREN backbone path in Southern California. It will move the Central Valley terminal from Los Angeles to the new UCR hub site and will redirect the diverse path between Los Angeles and San Diego, reducing a single point of network failure in downtown LA through which two CENIC backbone paths pass. This is an ongoing effort with a target completion date of late summer 2005.

#### ***NASA/Ames Project***

The NASA Ames Fiber project will install a direct multistrand dark fiber cable between the CENIC Sunnyvale hub site and the main Ames interconnection point in NASA building 254. The fibers will support three primary applications: permit the direct interconnection of the NASA Ames network to CalREN HPR and Abilene; provide capacity for dedicated high speed fiber connections to NASA Research Park R&E tenants; and, facilitate high speed interconnection allowing peering between CalREN's networks and other government and scientific networks having connectivity to the NASA Ames facilities. The targeted completion date for this project is April 05.

#### ***15454 Deployment Project***

This project involves the deployment and retrofitting of the CalREN and NLR network with Cisco 15454 optical equipment to be connected to existing 15808 equipment which is no longer available for sale. It includes a training component for CENIC's engineering staff and setting up a test bed for research and training purposes. This project is in the pre-deployment and planning phase. A deployment schedule is not yet available.

#### ***NLR Phase II Project***

Under contract to NLR INC, CENIC provides layer one services. This project involves deployment of the next phase of the NLR footprint, predominantly from Florida back to California and will incorporate the addition of several regional networks. As the Layer I NOC for National LambdaRail, CENIC engineering staff will provide operational support during the roll-out of NLR's Phase II deployment. This project is also in the pre-deployment and planning phase.

Source: Ed Smith, CENIC

#### **[National Networking News](#)**

#### **Spammers Seeking Out Instant Messengers, Survey Shows**

Seventeen million Americans who use services like America Online's Instant Messenger and Microsoft's MSN Messenger have received unsolicited commercial messages through the services at least once, according to a survey released today by the Pew Internet & American Life Project. That amounts to one third of the 52 million adults who use the Internet communications software, according to Pew Internet Executive Director Lee Rainie.

"The people who brought you spam ... are trying to figure out whether this is a cash cow," Rainie said. "It's an iron law of modern capitalism that wherever people are gathered, commercial messages will eventually intervene."

Source: Washington Post, <http://www.washingtonpost.com/wp-dyn/articles/A45011-2005Feb22.html?referrer=email>

#### **New Program Helps Girls Get 'IT'**

Concerned about the growing disparity between the number of men and women who enter the information technology (IT) field, the Florida Department of Education and networking giant Cisco Systems Inc. have unveiled a new program aimed at recruiting female students into the IT ranks.

Called Girls Get IT, the initiative is intended to foster workforce awareness and proactive industry recruitment at the middle and high school levels by giving girls more of an opportunity to explore IT as a potential career choice. Program leaders say they hope to close the widening IT gender gap, illustrated by the fact that women currently make up only 35 percent of the IT workforce--and fewer still are pursuing technical degrees in college.

Source: eSchoolNews, <http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=5525>

#### **Technology-Enabled Classrooms: Simplicity and Uniformity of Tools Make Them Truly 'Smart'**

If you're in one of three lecture halls at UC Berkeley, you'll find the audience response system similar to the one made famous in the blockbuster television hit "Who Wants to Be a Millionaire," wherein players - or, in this case, instructors - can conduct polls whose results are instantly tabulated and displayed.

To varying degrees, every UC campus is investing in outfitting its lecture halls and classrooms with modern technology, including data projection systems, Internet connections (and, increasingly, wireless Internet networks), and laptop computers. Faculty everywhere are developing well-organized PowerPoint presentations, course web sites, and online teaching materials designed to enhance instruction. Some faculty Webcast their lectures, both for non-attendees and for students who wish to revisit the session at a later date. Innovative instructors have incorporated ways of using classroom technology interactively, as with the audience response systems, and to access more types of media - video, audio, and interactive web sites - during class.

Source: UC TLtC News, <http://www.ucltc.org/news/2005/02/feature.html>

#### **Mapping Human Genetic Variation Across Populations**

Computer scientists at two research centers affiliated with the University of California have teamed with biologists from Perlegen Sciences, Inc., to map key genetic signposts across three human populations. Their study - published in the Feb. 18 issue of Science - could make widely accessible the analysis of human variation based on whole-genome data, and speed efforts to pinpoint DNA variations that are associated with disease or with how patients respond differently to drugs.

Researchers at Perlegen sequenced the single-letter variations (called single-nucleotide polymorphisms, or SNPs) in the DNA of 71 individuals of European American, African American, and Han Chinese American ancestry. Subsequently, scientists at the California Institute for Telecommunications and Information Technology (Calit2) at the University of California, San Diego, and the UC Berkeley-affiliated International Computer Science Institute (ICSI) helped analyze the set of over 100 million genotypes from the over 1.5 million SNPs sequenced in each sample by Perlegen.

Source: Science Daily, <http://www.sciencedaily.com/releases/2005/02/050222114216.htm>

#### **10 Million iPods, Previewing the CD's End**

Record executives devote a lot of thought to the future of the product they've long manufactured. "Five years from now, absolutely there will be CDs. Ten years from now, though, there will be fewer," compared with other digital music options, said Larry Miller, the 47-year-old CEO of the Or Music label, a Sony Corp. offshoot that gained notoriety this year for its biggest act, Los Lonely Boys, the Tex-Mex trio nominated for four Grammys. "As far as another [physical format], if it exists, I haven't heard about it. . . . When I look three to five years in the future, I believe that 20 to 25 percent of music purchased will be downloaded."

During the second half of 2004, more than 91 million digital tracks -- songs downloaded from the Internet -- were sold, compared with 19.2 million in the same period in 2003. That's an increase of 376 percent.

Source: Washington Post, <http://www.washingtonpost.com/wp-dyn/articles/A19831-2005Feb12.html?referrer=email>

#### **Internet2 Announces Key Milestone in Its Hybrid Optical And Packet Infrastructure Initiative**

The Internet2(R) Hybrid Optical and Packet Infrastructure (HOPI) initiative announced its design for a national network testbed infrastructure that, once built, will serve as a foundation for cutting-edge experimentation and a model for the next generation of Internet2's network architecture. As a part of its mission to design and deliver an advanced network infrastructure to meet the emerging needs of its member community, Internet2 has initiated the Hybrid Optical and Packet Infrastructure (HOPI) initiative to investigate next-generation high performance network architectures.

Source: I2 News, <https://mail.internet2.edu/www/arc/i2-news/2005-01/msg00005.html>

#### **San Diego County Real-Time Very High Rate High-Precision GPS Network Interfaces via HPWREN**

The HPWREN communications backbone is being utilized to develop the San Diego County Real-Time GPS Network (SDCRTN), a collaboration of UCSD/SIO and San Diego County's Department of Public Works and Sheriff's Department. The network, consisting of 22 high-precision GPS stations, originally designed for long-term crustal motion monitoring, is being upgraded to real-time operations to be useful for San Diego County decision makers in the areas of infrastructure monitoring, surveying and GIS, hazards management, emergency response, and crime scene investigations.

Source: HPWREN, <http://hpwren.ucsd.edu/news/050216.html>

#### **Wireless LAN Group Takes Step Toward High-Speed Standard**

The IEEE 802.11n Task Group last week winnowed out some proposals for a standard that's intended to boost wireless LAN throughput, not just the overall data rate, to at least 100M bit/sec.

The proposals now before the group are based on a technology called multiple input, multiple output (MIMO), which generates two or more unique radio signals and uses two or more transmit/receive antennas. Airgo Networks is the only company today actually shipping a MIMO chipset, which is just now being introduced in consumer-oriented WLAN products from companies like Belkin.

Source: Network World Fusion, <http://www.nwfusion.com/news/2005/0121wlann.html>

#### **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>

Website questions: [webmaster@cenic.org](mailto:webmaster@cenic.org)

Last Update: March 01, 2005