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President's Message

A few months ago, I wrote in CENIC Today about the strong partnership between the institutions that own and are served by CENIC. But that is only part of the story of the key relationships that have helped CENIC.

Over the years, CENIC has had strong working relations with several private sector corporations. Of the many, two have been engaged with CENIC since its founding in 1997. Cisco Systems and SBC were founding Partner Associates, contributing resources during the early phases, and continue to be engaged with CENIC through key projects.

Currently, Cisco Systems is partnering with CENIC to upgrade the multi-tiered CalREN infrastructure. Through competitive bid, Cisco Systems was selected to provide the optics to light the CalREN fiber backbone. The relationship in this initiative goes beyond just provisioning equipment; Cisco and CENIC are forming a Joint Research Council to provide the leadership in the development and use of CalREN-XD and CalREN-HPR for high-end research activities. Cisco has made a cash grant to CENIC that will be used under this partnership to make awards to network and experimental researchers who use CalREN.

SBC has been the main provider of circuits that connect the K-12 schools, community colleges and CSU campuses to the CalREN-DC backbone. For the past three years SBC has actively engaged in the Digital California Project, seeking ways to help schools connect with high capacity at reasonable cost. Like Cisco, SBC has made contributions to universities throughout California for research and to all K-20 institutions to help advance learning.

We are delighted to salute both these corporations for their commitment to education and research.

Source: Tom West, CENIC

CalREN Optical Infrastructure Update

We previously reported that the new optical backbone is complete between Sunnyvale and Los Angeles, Sunnyvale to Sacramento and on the two Los Angeles to San Diego paths. The equipment is being delivered to the Eastern backbone sites going up the Central Valley of California, and up to Corning. Site and route testing on the Central Valley path is scheduled to start the week of July 28, 2003.

Fiber has been installed to all the CalREN HPR campuses that contracted for installation, and installation and testing of the optical equipment to these campuses has been completed. The network IP equipment is installed or being installed at the affected sites, as are the ISP connections. Some campuses are beginning to route traffic over the new fiber network.

SBC's Enhanced GigaMAN services (EGM) have been installed to all six CalREN sites originally scheduled for the service, with a seventh redundant connection for the UC Santa Cruz campus slated for the week of August 25, 2003. Installation planning EGM services for Harvey Mudd, USC/ISI and CSU Monterey Bay is underway.

CENIC engineers are focusing their efforts on installation of the remaining network IP equipment serving HPR members institutions. Additional status information is available online at <http://www.cenic.org/downloads/pmo>.

Planning is underway to connect the California State University campuses and the California Community Colleges to the new CalREN optical infrastructure.

Source: Edwin Smith, CENIC

It's Time to Light the Future with National LambdaRail

The National LambdaRail (NLR) is a grand experiment on a national scale to develop and provide an optical fiber infrastructure for research and experimentation. NLR is a set of capabilities and facilities that will result in multiple applications and research-driven experimental networks geared for E-scientists and network researchers.

CENIC has been one of the main forces behind the founding and implementation of NLR. California is home to many E-scientists and network researchers and CENIC's participation in NLR provides the cyberinfrastructure to advance their scientific endeavors. NLR provides a spectacularly fast capability with far more research involvement -- down to the control plane level -- allowing customized configurations and potentially radical, explosive new architectures for catalyzing science and network research.

Greg Hidley, Head of Technology Infrastructure, California Institute for Telecommunications and Information Technology said, "There is no other institution able to provide a national scale dark fiber or wave level infrastructure connecting the breadth of research institutes that NLR proposes. NLR also offers networking infrastructure managed by academic network researchers with a proven track record at bringing regional scale networking services to the research community."

For more information, visit <http://www.getlight.net>.

CalVIP Implementation Update

An agreement with AGT for the CALVIP H.323 video over IP project has been signed. The CALVIP steering group has asked that the CENIC NOC be responsible for CALVIP Operations and CENIC has agreed to provide this support. The funding agreement between all of the constituencies is agreed upon and is now in the final stages of completion. The equipment purchases and professional services have been ordered so we can begin to plan the detailed implementation of this project. It is anticipated that the planning for this project will go fairly quickly, as the broader decisions were already made in the design and RFP portion of this project (i.e. how many MCUs, where they will be placed, the Gatekeeper infrastructure).

Source: Susan Bowers, CSU 4CNet

Digital California Program Update

Activities have been intense in the DCP project. Progress has been made on several fronts, including networking, school connectivity, video teleconferencing, and various content areas.

The number of counties connected to the CalREN network remains at 56, as reported in the May issue. However, progress is being made to connect the last two counties as SBC has reached agreements that will permit them to bring high speed network infrastructure to Humboldt County.

SBC believes it will be able to satisfy CENIC's long standing request for a circuit to Humboldt by the end of November. And, since CENIC currently has a reasonable speed (DS/3) connection between Humboldt and Del Norte counties, it is anticipated that both counties will be connected to the network by the end of the calendar year. To address the need for affordable network robustness, CENIC engineers are also studying alternatives for providing alternative paths to those counties, perhaps in conjunction with meeting non educational needs.

Work has also been completed and further work is underway to help unconnected schools connect into the CalREN network. Following a solicitation in May, last mile grants were awarded to 24 entities, representing 34 school sites. The grants enable the sites to acquire networking equipment and circuits to join the DCP network. Approximately \$650,000 was distributed at the end of July to support this program. The DCP staff is also analyzing data on unconnected schools to identify their characteristics in order to try to identify additional last mile funding opportunities.

Progress is also being made to fully engage DCP in the statewide video teleconferencing CalVIP project that will operate over the CalREN network. The DCP network is being upgraded to support high quality video over the Internet protocol, eliminating the need for support of non IP video protocols on the network. The new video teleconferencing capabilities, expected to be implemented by late fall, will provide for automated, web-based scheduling and room reservations, greatly reducing labor intensive scheduling and reservations systems and thereby making videoteleconferencing over the network easier and less costly to support.

DCP staff have been active in bringing together K-12 and higher education staffs to collaborate on various grant proposals that, if funded, would place new demands on the network. Among these has been the development of grant proposals for CPEC (California Education Postsecondary Commission) funding available for professional development. DCP staff has assisted in helping conceptualize use of the network to deliver high quality, cost effective professional development content funded as a result of these grant resources. Staff are hopeful that a number of the grant proposals will be funded.

Source: Jim Dolgonas, CENIC

Announcing the New CalREN DC TAC

CENIC's success can be traced at least in significant measure to the broad involvement of many individuals from member institutions who participate in engineering, design and operations. Central to the member guidance provided in the design and operation of the original CalREN-2 network has been the Technical Advisory Committee (TAC), currently chaired by Mike Van Norman of UCLA. With the advent of multiple tiers of service in the new fiber network, the original TAC has been renamed the High Performance and Research (HPR) TAC and a new Digital California (DC) TAC is being formed. The CENIC Board and management are pleased to announce that Chris Taylor, Executive Director of Collaborative Technology Initiatives in Office of the CIO California State University, Monterey Bay (CSUMB), has been named chair of the DC TAC for its first year. Mick Holsclaw, of Los Rios Community College District, was named Vice Chair and will assume the responsibilities of chair after a year. The first meeting of the DC TAC will be scheduled for mid September.

Source: Jim Dolgonas, CENIC

National Networking News

TechNet Releases State-by-State Ranking of Broadband Deployment Policies House

The Technology Network (TechNet), a national network of more than 200 CEOs and senior executives in the high technology and biotechnology industries, unveiled The State Broadband Index assessing state policies that impact broadband deployment and demand. Michigan and Florida lead the nation in policies that encourage next-generation broadband networks. California came in 14th.

With the State Broadband Index, TechNet examines the key role that states can play in making broadband available to all Americans. The report ranks the top 25 states based on the extent to which their public policies spur or impede broadband deployment and demand, and includes a Best Practices Guide to the most innovative state broadband initiatives.

The State Broadband Index calls on states to consider a range of policies critical to broadband deployment, including:

- legislation that standardizes and expedites rights-of-way permitting;
- adoption of a state-wide broadband strategy and creation of a lead broadband agency;
- comprehensive infrastructure mapping;
- policies to enable wholesale municipal networks;
- innovative initiatives that increase private sector deployment;
- financial incentives to reach underserved communities; and
- demand-promotion efforts including enhanced e-government.

The State Broadband Index can be downloaded at: <http://www.technet.org/>

Source: TechNet

New Version of the Internet2 Detective Now Available

Internet2 Detective version 2.20, a small easy to install and use application that reveals your computer's networking abilities, is now available. Incorporating improvements suggested by feedback from the Internet2 community, this version of the Detective enables you to determine:

- if a computer can access an Internet2 backbone network
- whether a computer can receive multicast streaming media, and
- what bandwidth is available between any two computers that have the Detective installed.

The Internet2 Detective is available for Microsoft Windows 98/2000/XP and as a test version for Mac OS X.

Download the Internet2 Detective at: <http://detective.internet2.edu/>.

Source: I2-NEWS

Report Shows Steep Rise in Distance Education

According to a new report from the Department of Education, enrollment in for-credit, distance-education courses at U.S. institutions more than doubled from the 1997-1998 academic year to the 2000-2001 academic year. The report, based on a survey of about 1,500 institutions, showed a similar rise in the number of distance-education courses offered and indicated that the percentage of institutions offering such courses rose from 44 percent to 56 percent. The survey highlighted the prevalence of Internet technologies for distance education, as well as videoconferencing and one- and two-way audio. John Bailey of the Department of Education's Office of Educational Technology said that distance education is not replacing traditional education but has become an important alternative for many students "who otherwise would not be able to participate."

Source: Chronicle of Higher Education, 21 July 2003 (sub. req'd) <http://chronicle.com/daily/2003/07/2003072102L.htm>

Peter T. Kirstein Recognized with the Internet Society's Postel Award

On July 16, 2003, The Internet Society announced that Internet pioneer Peter Kirstein is this year's recipient of the prestigious Jonathan B. Postel Service Award. A founding member of the Internet Society, Professor Kirstein is one of the pioneers of the Internet and was directly involved with its development and evolution. He was awarded the Postel Service Award in recognition of his foresight, persistence and innovation in navigating international technical and political complexities, and thus enabling the global propagation of the Internet. The Postel Award will be presented on July 16, during the 57th meeting of the Internet Engineering Task Force (IETF) in Vienna, Austria.

Source: Internet Society

Rural Telecommunications Congress Annual Conference: RuralTeleCon '03

This year's Rural Telecommunications Congress conference is taking place September 28 – October 1, 2003 in Washington D.C. and will examine national rural broadband policy and applications for socioeconomic growth.

The Rural Telecommunications Congress has teamed up with local host Appalachian Regional Commission and co-sponsor Rural Broadband Coalition to lift up promising practices in the six communities of interest relating to rural broadband, including: policy and regulation, education, e-government, infrastructure, community and economic development, and telehealth and telemedicine.

Keynote Speakers include

- U.S. Senator Conrad Burns from Montana
- Michael Copps, Commissioner of the Federal Communications Commission
- Robert Atkinson, Vice-President of the Progressive Policy Institute
- Alan McAdams, Institute of Electrical and Electronics Engineers

Over 16 general and concurrent sessions are scheduled on topics ranging from e-government to telehealth and telemedicine. The conference also includes a congressional briefing and reception at the U.S. Capitol on Tuesday September 30, 2003.

More information can be found at: <http://www.ruraltelecon.org/conference/>

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>.

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