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PUBLICATIONS

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

IN THIS ISSUE:

CENIC News

NOC Report

The CENIC Network Operations group will soon be rolling out a Customer Satisfaction Survey.

In the initial survey phase, email notification of ticket resolution will include a request to complete a "short survey" and a link to the survey site. The survey questions focus on issues associated with quality of service, and we encourage everyone to take the time to respond whenever prompted.

In the future, we will also provide a link on the CENIC Website to a more general survey form, that is, one that doesn't presume recent resolution of a trouble ticket. We are using the Zoomerang survey site for survey services, which includes reporting capabilities on the data collected. We plan to use the data initially to aid in CENIC's continuous improvement efforts and will also include relevant data in subsequent NOC reports.

Source: Sherilyn Evans, CENIC

Early Registration Prize for CENIC 2005

Registration is open for CENIC 2005 - Pathways to Discovery which will take place March 7-9, 2005 at the Ritz-Carlton Marina del Rey Hotel in beautiful Marina del Rey, California.

If your paid registration is received by February 14, you will be entered to win a $100 American Express Gift Check. Also, February 14 is the last date to make hotel reservations at the discounted rate of $155/night. Regular rates at the hotel are almost double the CENIC rate, so be sure and make your reservations by the cutoff date.

The conference will showcase two tracks on Monday and Tuesday. The Technology Track and Using the Technology Track feature a wide array of topics presented by dynamic speakers. Monday's keynote will be given by Susan Kennedy, a commissioner on the California Public Utilities Commission. During her tenure on the commission she has focused heavily on telecommunications issues. Wednesday's agenda highlights include panels on International Networks, Emerging Research Networks and CENIC's involvement with Homeland Security.

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
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Check Out the New Pacific Wave Web Pages

The Pacific Wave project, a project of CENIC and Pacific Northwest Gigapop (PNWGP), in collaboration with the University of Southern California (USC) and the University of Washington (UW), now has its own section on the CENIC website.

To find out more information about Pacific Wave, visit http://www.cenic.org/projects/pacificwave/about.htm.

CENIC Participates in First Responders Project with State

The U.S. Department of Homeland Security has awarded $900,000 for a demonstration project proposed by the California Office of Emergency Services and the California Department of Transportation, along with numerous other partners including CENIC. The project is being launched in an effort to help get critical information to decision makers in a timely fashion when disaster strikes so that first responder actions can be coordinated expeditiously and further harm to the infrastructure and citizens can be mitigated, if not prevented.

While any disaster is a highly localized phenomenon, effective response requires both the integration and coordination of information from regional, multi-jurisdictional sources and the rendering of information to decision makers, who frequently are at remote sites. The time required to co-locate decision makers at centralized emergency operations centers can be a serious compromise to an effective response. Further complicating the task is the need for a Common Operational Picture that enables all parties to make decisions based on the maximum amount of information commonly available to the appropriate public safety and Homeland Security officials.

The project will develop and test an Extensible Emergency Operations Center (EEOC) that will allow decision makers from diverse first responder organizations to share information, make decisions and issue directives based on a Common Operational Picture of information relevant to the crisis at hand. Decision makers will not have to be co-located, but can access information from virtually any location via the public Internet or a first responder intranet. Information access and action directives will reach mobile first responders through a dynamic mobile wireless mesh network that will support 2-way high-speed data communications. Existing information technology systems, radio and terrestrial networks will be fully leveraged - via technology augmentation, not replacement.

In addition, the project will explore the benefits of using CalREN to support the state's need to facilitate information exchanges between decision makers and first responders anywhere in the state. The project will establish and test the use of numerous pathways (i.e. redundancy) for data exchange to enhance reliability and accessibility during a real life scenario. Use of CalREN as one of many paths will help policymakers ascertain the long term viability and acceptance of "public" networks to public safety organizations, and the conditions that must be present for such organizations to agree that the use of public networks is meritorious.

Source: Stephanie Couch, CENIC

National Networking News

Real-Time HDTV Broadcast from USA to Japan Enabled by Advanced Networks

Dignitaries and researchers attending the Japan Gigabit Network 2 (JGN2) Symposium in Osaka, Japan today (January 18) listened and watched as Internet visionary Larry Smarr gave the keynote presentation on a large screen above the podium. Unlike traditional keynote talks, however, Smarr was 5,000 miles away in Seattle, Washington.

Advances in transmitting live, uncompressed high-definition television (HDTV) signals over optical networks are enabling true tele-presence, in which participants feel they are together in the same room. The iHD1500 broadcast system used for this event was developed by the University of Washington's Research Channel. A server in Seattle transmitted high-definition digital video and digital audio at very high quality and very low latency to a client system in Osaka. Data went over the University of Washington campus network to the Pacific Northwest GigaPoP (PNWGP), then via a 10 Gigabits per second (Gbps) transpacific link from Seattle to Tokyo, and then via the JGN2 to Osaka. The transpacific link was provided by the Internet Educational Equal Access Foundation (IEEAF), which is managed by the PNGWG in Seattle and the WIDE project in Japan.

Source: Cal-IT(2), http://www.calit2.net/news/2005/1_18-05_HDTVJapan.html

The SIO/IGPP Laboratory for Atmospheric Acoustics is Utilizing HPWREN

The Laboratory for Atmospheric Acoustics of the Scripps Institution of Oceanography's Institute of Geophysics and Planetary Physics at UCSD is utilizing HPWREN for an infrasound array built to detect nuclear explosions as part of the comprehensive test ban treaty. The system is called I57US, and located at Pinyon Flats in Riverside County. It is composed of eight digitizers, which are attached to sensitive microbarometers that measure small changes in atmospheric pressure.

Source: HPWREN News, http://hpwren.ucsd.edu/news/041119.html

Schools Use Web to Deepen Tsunami Study

In the aftermath of the deadly tsunami that devastated parts of South Asia and the east coast of Africa on Dec. 26, educators and their students are using online resources to help explain the geological, geographical, cultural, and political elements of the disaster.

Source: eSchoolNews, http://www.eschoolnews.com/news/showStory.cfm?ArticleID=5452

State Joins SBC to Give Beachgoers Wireless Web

Visitors to San Elijo State Beach now have a choice when it comes to surfing: the ocean or the Internet.

The state parks system and SBC Communications have partnered to offer a wireless Internet connection, so visitors can log on to the Internet and e-mail pictures home after a hard day hiking, swimming and roasting wieners.

Source: San Diego Union Tribune, http://www.signonsandiego.com/news/northcounty/20050120-9999-1mc20wifi.html

Hawaii's First 10Gbps External Network Connection Demonstrated By UH

The University of Hawai'i demonstrated Hawai'i's first 10Gbps (billions of bit per second) connection outside the state on January 10 when it conducted a remote microscopy between the Lariat project participants meeting at the East-West Center on the UH Manoa campus and the National Center for Microscopy and Imaging Research (NCMIR) at the University of California at San Diego.

The Lariat project is being conducted by the Pacific NorthWest Gigapop as part of a $10 million National Institutes of Health (NIH) award to Montana State University to enhance the capability for biomedical research in Alaska, Idaho, Wyoming, Montana, Nevada and Hawai'i.

Source: UH News, http://www.hawaii.edu/cgi-bin/uhnews?20050120141419

Dark Fiber Technology Creates Faster Networking

The quality of real-time video events such as interactive music master classes will improve at Columbia University as a result of a new, high-speed network known as the New York City Dark Fiber Network. This is just one example of the benefits of the private network for Columbia and other New York City research, education and medical institutions, which now have state-of-the-art links to each other and to the Internet and Internet 2.

In addition to creating faster and more reliable connections, the Dark Fiber Network boosts the cost effectiveness and flexibility of the institutions' computer networks. At Columbia, the new technology essentially doubles the capacity of its commercial Internet service from 155 Mbps (megabits per second) to 300 Mbps; enhances its flexibility in future purchasing of networking technology; and affords greater security of network connections in the event of damage to critical infrastructure. The network is called "dark fiber" because no telecommunications carrier is "lighting" it with its equipment; instead; Columbia "lights" its fiber strands with its own equipment, just as it does for on- and near-campus fiber cables.

Source: Columbia News, http://www.columbia.edu/cu/news/04/12/darkfiber.html

National Ed Tech Plan Released

On January 7, the U.S. Department of Education released the new National Education Technology Plan, which is based, in part, on comments from thousands of students, teachers, administrators and education groups. Toward a New Golden Age in American Education: How the Internet, the Law and Today's Students are Revolutionizing Expectation, focuses on signs of progress in core subjects, benefits from reforms stimulated by the bipartisan No Child Left Behind Act, and the success of innovative new approaches to learning through advances in educational technology.

Source: Tech Learning, http://www.techlearning.com/content/ednews/2005-0111.htm

Internet2 Will Expand to K-12

Internet2's high-speed network, previously reserved for research institutions, is expanding to include additional colleges and K-12 schools. That could mean a national education network connecting thousands of schools around the country.

Internet2 was initially created to develop advanced applications and networking for research and education. The backbone network, called Abilene, supports high-quality audio and video, and does not include the extraneous sites of the so-called commodity Internet.

Source: Wired News, http://www.wired.com/news/culture/0,1284,42112,00.html

Internet Performance Records Topped

Internet2(R) today announced that two separate international teams have each set new Internet2 Land Speed Records (I2-LSR). As an open and ongoing competition for the highest-bandwidth, end-to-end networks, Internet2 LSR marks represent the rate at which data is transferred multiplied by the distance traveled.

In the IPv4 multi-stream category, a team from the California Institute of Technology (Caltech), The European Organisation for Nuclear Research (CERN), and the Corporation for Education Network Initiatives in California (CENIC) successfully transferred 2881 gigabytes of data in approximately 60 minutes across 26,950 kilometers of network at a rate of 6.86 gigabits per second - 6000 times faster than a typical home broadband connection. The record-setting data transfer traversed the Internet2 Abilene, National LambdaRail (NLR), CENIC, LHCNet, and SCinet networks. The LHCNet link between the Starlight in Chicago and CERN in Geneva was used in both directions simultaneously during the record trial.

Source: I2 News, https://mail.internet2.edu/wws/arc/i2-news/2005-01/msg00000.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.

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