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CENIC News

President's Message

After a brief holiday everyone is back in the harness. There is much to do over the next six to ten months. Our top priority is to implement the fiber-based statewide backbone that will serve the needs for CalREN-DC and CalREN-HPR. While we are not the first to jump into the fiber-based network approach (Indiana, Illinois and Washington have already done it), we will have the most extensive optics network serving the research and education community in the USA. We are now turning our attention to making the Experimental and Network Research layer of the CalREN a reality.

Another major focus is on the "Gigabit or Bust by 2010" initiative. Gartner Consulting has just completed interviews with several individuals, representing a wide range of groups to ascertain expectations, attitudes and strategies for achieving this goal. The results are expected out by early March.

The Digital California Project is rolling along. We anticipate all connections to all 58 counties by the end of spring. The counties are implementing their second round upgrades. The team is focused on bringing content providers into the process. The support for DCP continues to grow. We are gratified by the significant involvement and commitment of so many from the K-12 community

Source: Tom West, President, CENIC

CalREN Fiber Network Update

Optical and routing equipment has been ordered from Cisco Systems to light the state-wide fiber backbone and bring up the new CalREN-DC and CalREN-HPR backbone network services. Included in that order are the metro and campus connection optical equipment.

The 10Gigabit/second connection of CalREN to Abilene, initially installed for the Internet-2 Member Meeting in Los Angeles, has now been fully connected to CalREN. CENIC is the first GigaPOP to connect to the new Abilene backbone.

The third and fourth TeraGrid waves have arrived from Illinois, and are being connected into a TeraGrid router at the CENIC Los Angeles hub site to allow interconnection to CalTech as well as the existing CalREN backbone connection path to SDSC.

A detailed (over 950 tasks) preliminary implementation schedule for fiber backbone network implementation was reviewed with the CENIC BAC and TAC at the December meeting. This schedule is being updated now as equipment ship dates are being finalized.

With one exception, contracts to install fiber to UC campuses and the CSUSLO have been executed. Fiber construction is complete at UCD/UCDMC and for the 2nd path between LA and UCSD/SDSC and underway at UCR, CalTech and CalPoly. While construction schedules can slip, completion of all last mile construction by April remains a reasonable target. This schedule will support the turn up of the new fiber based backbone in July as scheduled.

The second fiber path for a number of campuses is being provided through a new managed service from SBC/PacBell that provides multiple Gigabit Ethernet connections over in-place SBC/PacBell fiber optic cabling. That contract has been signed; the implementation of this service is being incorporated into the overall project plan.

Source: Greg Scott, CENIC, Director, Infrastructure Initiatives

DCP Update

December was an important month for the DCP in terms of progress in stimulating delivery of content over the network. On December 10, the DCP team hosted a meeting of publishers of educational resources and various government officials to move forward in delivering network-enabled content to educators and students. All 50 participants were strongly engaged in lively discussions on the topic. The meeting included a presentation by Theresa Frederika, Executive Director of INFOhio, the entity which oversees statewide licensing of content for delivery via the K-12 educational network in Ohio. Theresa's presentation helped focus thinking on issues that Ohio encountered in their efforts to acquire content that could be made available on a statewide basis.

A series of follow up steps resulted from the meeting and an action plan, including strategies for involving publishers and developers of online resources, DCP and agency staff in the efforts to find solutions to the many challenges, is under development. While the meeting participants identified difficult issues requiring attention, the input and participation of the content owners in the resolution of these topics will permit development of a plan to move this agenda forward.

On the network front, Mono County's node site, located at the Mono County Office of Education, was installed recently, bringing the total number of counties connected to the CalREN/DC Network to 55. Solicitation of E-Rate applications was also undertaken. CENIC received over 600 letters of agency from K-12 local education authorities throughout California expressing an interest in renewing their participation in the CENIC E-Rate Consortium which will help CENIC acquire federal E-Rate discount funding for node site installations.

Source: Jim Dolgonas, COO, CENIC

NGI Roundtable Update

NGI Study

As a part of CENIC's Next Generation Internet Roundtable initiative, Gartner Consulting has been selected to conduct a study to quantify the tangible benefits of a ubiquitous broadband infrastructure in California. The study will look at the impact of ubiquitous one gigabit broadband by 2010. Specifically, the study will look at public policy, technology, economic, and social factors. The results of the study will be available in March 2003.

NGI Roundtable Killer Apps Workshop

CENIC announces its second NGI Roundtable Workshop: Killer Apps - Proving the Need for One Gigabit. The workshop, highlighting current and potential applications made possible through a ubiquitous gigabit Internet, will take place on February 25, 2003 at UCSD's San Diego Supercomputer Center.

CENIC's Next Generation Internet (NGI) Roundtable addresses critical technical, policy, financial and organization challenges facing the delivery of one gigabit broadband to all Californians by 2010. The Killer Apps workshop will bring together the interests of research, education, commerce, state and local government and the general public to explore the applications made possible with the implementation of robust end-to-end broadband capabilities to every education institution, business and home in California.

This workshop is an invitation only event focusing on 6 major areas: Homeland Security, Transportation, Economic Development, Entertainment, Healthcare, and Research and Education. To request an invitation, please contact ngiworkshops@cenic.org.

Source: Molly Petrick, NGI Roundtable Director

CENIC Technical Advisory Committee (TAC) Update

Meetings of the TAC were held December 12 at UC Riverside and January 16 at Santa Cruz. The Riverside meeting was dedicated to an in-depth status report on the implementation of CENIC's Optical Network Infrastructure Initiative (ONI). The January meeting included an update on the fiber backbone installation, a review of the draft CENIC action plan, including projects for the coming year, and a presentation on the Internet 2 End-to-End Performance Initiative. Contact the TAC chair, Michael Van Norman (mvn@ucla.edu), for more information regarding these meetings and other TAC events.

Source: Michael Van Norman, TAC Chair

CalVIP Update

The California Video over IP (CALVIP) RFP was released on November 15, 2002. On November 22nd there was a mandatory vendor conference. Around 11 vendors indicated interest in being primary responders to the RFP with several other vendors there wanting to support the primary vendors.

The RFPs are currently being reviewed by the committee at this time. A decision is expected to be made by the end of the month or the beginning of February.

For more information on the RFP, please see the information at <http://www.calstate.edu/CSP/bids/A020181/A020181.shtml>

Source: Susan Bowers, CALVIP Project Manager

National Networking News

Infrastructures of Digital Design Symposium

"Infrastructures of Digital Design" take place January 31 to February 2 at the University of California San Diego Center for Research in Computing & the Arts. As part of the UC Digital Cultures Graduate Initiative, this symposium will feature paper presentations and new media works from 30 graduate students from inside and outside the University of California and from inside and outside of the United States, and will be supported by distinguished faculty members and invited guest speakers.

"Infrastructures of Digital Design" will commence with a keynote speech by Howard Becker leading sociologist of art and professor emeritus at the University of California, Santa Barbara - to be followed by two days of plenary presentations that will address the following issues: Enabling Design - What strategies and models of cultural production can be developed from the realization of new infrastructures? Health Information Systems - What are the ethical and technical questions produced through the representation and collection of patient data and the formulation of new medical knowledge? Spatiality and Built Environments - How does mapping, collection and transmission of data affect the understanding of a 'lived' the 'local'? Environments for Learning/Community/Identity - What types of models facilitate and produce new forms of understanding between both oneself and the group or others? Designing Regulation and Regulating Design - How are infrastructures deployed and employed by both the private and public sector, setting standards for new policy and invention?

A full conference program can be found at <http://infrastructures.ucsd.edu>. Questions and requests for more information may be sent to infrastructures@digitalcultures.ucsd.edu. A map and directions to CRCA and the UCSD Visual Arts Facility are found at <http://crca.ucsd.edu/information/map.html>.

Source: UCSD

NSF Program Provides Bandwidth

As the site of the world's largest single-dish radio telescope, the Arecibo Observatory in Puerto Rico is one of the most important national centers for research in radio astronomy and planetary radar. Now, thanks to the National Science Foundation's (NSF) High-Performance Network Connections (HPNC) program, astronomers such as Tom Troland at the University of Kentucky can access their research data many times faster than before.

The HPNC award to Arecibo and the University of Puerto Rico has upgraded the connectivity at the observatory and the university's three campuses. The NSF-funded AmericasPATH "gateway," operated by Florida International University, made the connection of UPR and Arecibo to Internet2 possible.

For the past seven years, NSF has helped extend the reach of the country's network infrastructure to colleges and universities, research centers, and museums. In 2002, the HPNC program is supporting 14 additional sites in providing the connections that open up new opportunities for researchers, educators and students.

The full article can be read at www.supercomputingonline.com/nl.php?sid=3005.

Source: Supercomputing Online

Globus Toolkit 3.0 Delivers Grid Standards

Grid computing takes a major step forward with the first implementation of emerging standards known as the Open Grid Services Architecture (OGSA). The Globus Project (TM) issued its alpha release of the Globus Toolkit 3.0 (GT3), a set of open-source software and services whose earlier versions have transformed the way on-line resources are shared across organizations.

GT3's release, which coincides with the first GlobusWorld conference in San Diego (<http://www.globusworld.org>), is the result of the past year's effort toward defining specifications for Grid services that extend standard Web services. The OGSA-based alpha version builds on prior releases of the Globus Toolkit, which is central to hundreds of science and engineering projects on the Grid.

GT3 will benefit from an expanding community of developers who are closely involved in helping to develop Grid standards through the Global Grid Forum (GGF), a community-based organization with public- and private-sector contributors. For example, the UK e-Science program is leading the GGF's OGSA Database Access and Integration (DAIS) working group to build database capabilities into OGSA and GT3. Lawrence Berkeley National Laboratory is also contributing directly to the GT3 code base.

Development of GT3 is sponsored primarily by the U.S. Department of Energy through its Office of Science's Mathematical, Information and Computational Sciences Division, as well as by industry partners IBM and Microsoft Research.

For more information, see <http://www.globus.org>.

Source: I2News

The Internet Society's 2003 Network and Distributed System Security Symposium (NDSS'03)

The 10th annual NDSS Symposium brings together innovative and forward thinking members of the Internet community including leading-edge security researchers and implementers, globally-recognized security-technology experts, and users from both the private and public sectors who design, develop, exploit, and deploy the technologies that define network and distributed system security.

NDSS'03 provides a balanced mix of technical papers (with a strong emphasis on implementation) and panels who discuss and debate new and practical approaches to security problems that are endemic to network and distributed systems.

Topics at the symposium includes: Defending Against Network Attacks, Secure Routing and Mobility, Security in Multicast Protocols, Cryptographic Protocols and Constructs, Network Monitoring and Intrusion Detection and Access Control and Penetration Resistance.

For further information about NDSS'03 visit <http://www.isoc.org/ndss03/>

Source: Internet Society

About CENIC

CENIC is a not-for-profit corporation formed by the California Institute of Technology, the California State University, Stanford University, the University of California, and the University of Southern California to facilitate and coordinate the deployment, development, and operation of a set of seamless and robust advanced network services. The CENIC Associates program offers qualified companies the opportunity to collaborate with CENIC in pursuit of the goal of providing the most advanced network services for research and education. Cisco Systems, SBC, and the University and Community College System of Nevada are CENIC's Partner Associates.

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