



## **Internet2(R) Members Update April 2003**

- ◇ NSF Grant Opportunities
- ◇ Internet2 Spring 2003 Member Meeting
- ◇ Value for Members
- ◇ Virtual Briefings
- ◇ Applications Update
- ◇ International Update
- ◇ Middleware Update
- ◇ End-to-End Performance Initiative (E2Epi)
- ◇ Internet2 K20 Initiative Update
- ◇ Member-to-Member Announcements
- ◇ Future Internet2 Events
- ◇ New Members
- ◇ Internet2 Days
- ◇ Showcase Opportunities
- ◇ Internet2 Related Events

Member updates are now archived at:

<http://members.internet2.edu/memberupdates/index.html>

### **◇ NSF Grant Opportunities**

#### **+ Special Projects in Networking Research (SPN)**

The objective of the Special Projects in Networking Research (SPN) program is the creation and support of broad-scale, deep-focus explorations of new concepts in networking. The emphasis is on long-term research and pioneering visions, approaches that question embedded assumptions and step outside the existing frameworks. More than just new technical approaches, SPN will seek out new problem spaces - new services and applications - that are appropriate for the year 2015 and beyond. Projects will be considered for the breadth of their scope, the clarity of their vision, and the rigor of their approach. System demonstrations and rigorous experimentation are considered central to the program, providing the grounding necessary to filter and advance the winning concepts. Successful proposals will present an ambitious and comprehensive research plan and a strategy for achieving demonstrable impact. Team projects must be based on active collaboration and must develop a coherent plan for integrating contributing efforts toward a common goal. For more information see:

<http://www.nsf.gov/pubs/2003/nsf03555/nsf03555.htm>

#### **+ NSF Experimental Infrastructure Network Solicitation**

NSF has released a solicitation entitled "Experimental Infrastructure Network" (EIN), with a due date of May 8th for proposal submissions. This solicitation seeks compelling research and education applications that require services not available from leading edge production networks such as Abilene. Abilene, however, could play a role in providing isolated capacity for separate network paths that could be allocated for experimental applications. In addition, there are plans for acquiring lightpaths (i.e., optical links) within the period of this new NSF program that could be applied toward the goals of the solicitation. We believe this solicitation is important, as it will help define and motivate the next generation of end-to-end services and applications that will run across Internet2 networks.

If you are working on a response to this solicitation, have challenging applications experiments in mind, and are interested in seeing if your application could take advantage of Abilene's testbed capabilities, please contact Ted Hanss at <ted@internet2.edu> and 734.913.4256 or Steve Corbató at <corbato@internet2.edu> and 734.352.7006. We are open to exploring how Abilene's capabilities can support proposals involving member universities, corporations, and affiliates. For example, we could exploit large MTU sizes (greater than 9K), IP quality of service, and experimental protocols to enhance application performance.

If you have plans to respond to NSF's solicitation, please contact us.

For more information see:

<http://www.nsf.gov/pubs/2003/nsf03539/nsf03539.pdf>

#### ◁ **Internet2 Spring 2003 Member Meeting**

Register now to attend the Spring Member meeting, April 9-11 in Arlington, Virginia.

Some of the highlights of the upcoming meeting include: keynote presentations by Peter A. Freeman, assistant director of the National Science Foundation for Computer & Information Science & Engineering (CISE) at the National Science Foundation and by David B. Nelson, director of the National Coordination Office (NCO) for Information Technology (IT) Research and Development (R&D); new super track sessions focusing on the issues of a national optical fiber infrastructure and on the recent NSF Cyber-Infrastructure Report; and updates on the latest developments in middleware, including a demonstration of the newest version of Shibboleth. For all member meeting information see:

<http://events.internet2.edu/2003/spring-mm/>

#### ◁ **Value for Members**

##### + Shibboleth

Shibboleth, a project of Internet2/Middleware Architecture Committee for Education, allows Internet2 member institutions to share Web resources in an access-controlled environment. Version 0.8 was recently released and version 1.0 is expected by the end of April 2003. Shibboleth provides makes it easier for individuals in the higher education community to conduct inter-institutional collaboration.

##### + Digital Video and the Arts

In late March, Internet2 and the New World Symphony co-hosted a Performance Production Workshop and a Distance Education Symposium on the Miami campus of the New World Symphony. The increased involvement of music schools, conservatories, and museums is an indication of the growing role of high-performance networking throughout the arts and humanities community, and in turn, this community is contributing valuable experience in the use of uncompressed audio and video.

#### ◁ **Virtual Briefings**

##### + May and June Internet2 Virtual Briefings

Due to the Spring Member Meeting, we will not have an Internet2 Virtual Briefing in April. Plans are currently under way for the May and June Briefings. Please stay tuned to our website for detailed information about future Briefings.

<http://events.internet2.edu/briefings/index.html>

##### + View Past Virtual Briefings

If you missed the March 7 Virtual Briefing, "Science Education for the 21<sup>st</sup> Century", you can view it in the Virtual Briefings archive: <http://events.internet2.edu/briefings/pastbriefings.html>

#### ◁ **Applications Update**

##### + New World Symphony Workshop and Symposium, March 28 & 29

Internet2 and the New World Symphony hosted a two-day event (at the New World Symphony campus on Miami Beach) to introduce educators and technicians from major music schools to the power of high-performance networking for distance education and music collaboration. For more information see:

<http://events.internet2.edu/2003/NWSIndex.html>

##### + Transcontinental Poetry Reading, April 19

The Internet2 Transcontinental Poetry Reading, scheduled for April 19 at 7:30 p.m. EDT (2330 UTC), will be a live multi-site event dedicated to Kenneth Koch (1925-2002)--poet, playwright, and professor at Columbia University. The event will feature poets across the country, who will be brought together using videoconferencing over Internet2 high-performance networks. The event will begin with an across-continent reading of Koch's work called "Twenty Poems" from his book "Days and Nights." The second half of the event will feature the poets reading their own works. For more information about the event: <http://arts.internet2.edu/poetry-reading.html>

#### <> **International Update**

+ Russian Institute for Public Networks (RIPN)

Internet2 has signed a memorandum of understanding with RIPN, the non-profit organization founded to develop and operate high-performance networks for research and education in the Russian Federation. RIPN runs RBnet, the national backbone network which connects together higher education and research centers around Russia. More information on the RBnet can be found at: <http://www.ripn.net:8082/rbnet/en/index.html>

Connectivity between Internet2 networks in the US and RBnet is provided by NAUKAnet, a project funded by the National Science Foundation's High Performance International Internet Service (HPIIS) program and the Ministry for Industry, Science and Technology of the Russian Federation. NAUKAnet provides a 155Mbps link between RBnet in Moscow and the StarLight international exchange point facility in Chicago (also funded by NSF.)

Some of the sites on RBnet that are reachable via NAUKAnet are at: <http://www.naukanet.org/friends/naukanet/users/russia/index.html>

NAUKAnet: <http://www.naukanet.org/>

RIPN: <http://www.ripn.net/>

+ CUDI Spring Meeting to be held 2-4 April

CUDI, the Internet2 international partner in Mexico, will hold its bi-annual member meeting in Ensenada, Baja California from April 2-4. Hosted by CICESE (Centro de Investigacion Cientifica y de Educacion Superior de Ensenada), a research and scientific center with advanced specializations that include earth, meteorological and oceanographic sciences, the meeting will focus on updates in network and applications developments within CUDI. A number of members of the Internet2 community are scheduled to speak at the conference, including Tom West of CENIC, Eric Frost of SDSU, Van Whitting of UCSD, Ed Johanssen, a member of the Internet2 Health Sciences Advisory Group, Internet2 staff members Ana Preston, Rick Summerhill, Charles Yun, and a number of others. For more information: <http://www.cudi.edu.mx/primavera2003/index.html>

#### <> **Middleware Update**

+ 2nd Annual PKI Research Workshop: April 28-29

Register now for the 2nd Annual PKI Research Workshop sponsored by Internet2, NIH, and NIST in Gaithersburg, MD. Registration deadline is April 22nd; onsite registration will not be available. <http://middleware.internet2.edu/pki03/>

+ The Higher Education Bridge Certificate Authority (HEBCA)

The Higher Education Bridge Certificate Authority (HEBCA) Board of Instantiation and Development (BID) requests responses to a Request for Information (RFI) from interested organizations with expertise in operating a PKI. The RFI document is posted at the following URL: <http://www.educause.edu/ir/library/pdf/NET0309.pdf>

General information related to this RFI is located at: <http://www.educause.edu/asp/doclib/abstract.asp?ID=NET0309>

#### + Shibboleth

The Internet2 Shibboleth team announced the availability of release 0.8 of its Shibboleth implementation on March 11. This new release contains many improvements and enhancements. With this release, there are separate distributions for origin and target deploys. Deploy documentation can be found, linked from the "Shibboleth v0.8 Available" entry in the Navigation Bar of the Shibboleth Home Page:  
<http://shibboleth.internet2.edu/>

This release has been tested on Red Hat Linux versions 7.2 and 7.3, and on Solaris 2.8. The origin implementation is entirely in java, so there is one package for all platforms. There are separate target packages for RH and Solaris. The distribution packages are available from:  
<http://wayf.internet2.edu/shibboleth/index.html>

Shibboleth v 1.0 is scheduled for release on April 28. Shibboleth demonstrations will be held at lunch on Wednesday and Thursday during the Internet2 Spring Member Meeting in Arlington, VA.

#### + Directories

The MACE Directories working group has been developing a specification for editing and managing directory groups. They have also been working on several aspects of eduPerson attributes including proper use of the entitlement attribute, the relationship of various attributes to Shibboleth, and the internationalization of attributes.

<http://middleware.internet2.edu/core/directories.html>

#### <> End-to-End Performance Initiative (E2Epi)

##### + piPEs/AMI

This month, the E2E piPEs team built the software test environment and deployed the latest version of OWAMP and Iperf tests on Abilene; thanks to some assistance from Internet2's Engineering and BNI teams, the test harness is complete. E2Epi continues to work with Warren Matthews (SLAC) to set up a Web service front-end for piPEs. During March, the E2E piPEs team designed the Abilene Measurement Infrastructure (AMI) visualization and the database schema.

##### + OWAMP/H.323 Beacon Tools

During March, OWAMP has been moved from Alpha to Beta release; documentation is in progress. The OWAMP implementation now completely adheres to the wire protocol of the specification. Also, an internal beta version of the H.323 Beacon was released mid-month. For more information see:  
<http://owamp.internet2.edu> and <http://www.itecoho.org/beacon/>

##### + Campus Network Infrastructure (CNI) Guide

This document is an attempt at a "best practices" for campus network infrastructure; a "full draft outline" has been posted for review/comment. A working session, to garner input from the community, is scheduled for April 10 at the Spring Member Meeting. Note: The session is by invitation only. If you are interested in participating in the development of such a guide, please contact Russ Hobby <[rdhobby@internet2.edu](mailto:rdhobby@internet2.edu)> or see [http://e2epi.internet2.edu/cni\\_outline.html](http://e2epi.internet2.edu/cni_outline.html)

##### + National Library of Medicine (NLM) Pilot Study

E2Epi is working with the NLM and Conseq Associates to conduct a pilot study on user expectations, the results of which will help NLM to determine if a more extensive study is needed or will be of use to them in policy decisions. The project is seeking potential interviewees (health sciences/health care community using networks); if you know of anyone who might be interested in participating, please send contact information to George Brett <[ggb@internet2.edu](mailto:ggb@internet2.edu)>.

##### + Peer-to-Peer (P2P) Working Group

The Internet2 P2P working group was the working group for the month of March. A new web page has been created, listing the current activities of the WG; take a look at: <http://p2p.internet2.edu>

#### <> Internet2 K20 Initiative Update

+ The Learning Network of Minnesota named SEGP of the Month  
Technology and Information Educational Services (TIES) is helping Minnesota students take part in exciting and innovative learning opportunities through high-performance networking that gives access to a new realm of clear, virtual digital experiences. TIES has partnered with the University of Minnesota to explore how to use Internet2 networking capabilities in K-12 education. For the full article on what is happening in the Minnesota SEGP community, please visit the Internet2 K20 website:  
<http://k20.internet2.edu/segp/index.html>

#### <> **Member-to-Member Announcements**

##### + Information Sharing Guidelines

Periodically members are interested in sharing information about special activities or opportunities with the Internet2 community such as technology symposiums, workshops, donation programs, product offerings and or grant opportunities. In an effort to facilitate information sharing we are adding a Member-to-Member section to this monthly update. Members interested in contributing notices should review the guidelines at: <http://members.internet2.edu/corporate/InformationSharing.html> or email <evaughan@internet2.edu> with proposed announcements.

#### <> **Future Internet2 Events**

##### + Summer Joint Techs Workshop

The University of Kansas will host a meeting of Joint Techs August 3-7 in Lawrence, Kansas. More information about the meeting will be announced shortly; please save the dates on your calendars!

##### + Fall 2003 Internet2 Member Meeting

Indianapolis, Indiana will be the site of the Fall 2003 Internet2 Member Meeting.

The meeting is presently scheduled for October 13-16. As details of the meeting become available, they will be announced on the Internet2 website.<http://www.internet2.edu>

#### <> **New Members**

##### + Affiliate Members

- National Archives and Records Administration

#### <> **Internet2 Days**

Hold an Internet2 Day for your Internet2 member organization. Technical support for live demonstrations and informational materials are available. For more information contact Marianne Smith

<melser@internet2.edu> or see: <http://apps.internet2.edu/Internet2-Days.html>

##### Upcoming Internet2 Days

##### + University of Memphis

2 April, Memphis, TN

<http://www.memphis.edu/>

##### + Virginia Commonwealth University

24 April, Richmond, VA

<http://www.at.vcu.edu/etech/etday/index.html>

#### <> **Showcase and Spotlight Opportunities - Projects and People**

A Showcase on the Internet2 Web site is a great way to highlight the milestones, events, collaborations and efforts that are a result of your work in the advanced networking community. You are also encouraged to submit a profile of anyone in the Internet2 community whose efforts merit notice. Include a brief description (less than 100 words), all appropriate links and images, and contact information. If you have suggestions about projects, people or news that might be featured, please contact Adam Csillag <acsillag@internet2.edu>.

#### <> **Internet2 Related Events**

##### + Online Calendar

For a complete listing of events for and of interest to the Internet2 community, see the online Internet2 Calendar. Be sure the Internet2-related event you are holding or know about is listed at:  
<http://events.internet2.edu/calendar/main.php>

If you are holding an event of any kind related to Internet2, we will be glad to assist members with resources such as printed publications, equipment or speakers. Please contact Marianne Smith for more information <[melser@internet2.edu](mailto:melser@internet2.edu)>.

The Security Professionals Workshop  
22-23 April  
Temecula, CA  
<http://www.educause.edu/conference/security/2003/>

NetWorld+Interop 2003  
27 April - 2 May  
Las Vegas, NV  
<http://www.interop.com/>

EDUCAUSE--Networking 2003  
30 April - 1 May  
Washington, DC  
<http://www.educause.edu/conference/>

CENIC 2003 Conference  
7-9 May  
San Diego, CA  
<http://www.cenic.org/Events.html>

TERENA Networking Conference 2003  
19-22 May  
Zagreb, Croatia  
<http://www.terena.nl/conferences/tnc2003/>