WELCOME TO THE
INTERNET2 SPRING MEMBER MEETING
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution/Company</th>
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<tr>
<td>Terry Doub</td>
<td>Chair, Louisiana State University</td>
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<tr>
<td>Stephen Wolff</td>
<td>Vice-Chair, Cisco Systems</td>
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<td>Thomas Barton</td>
<td>University of Chicago</td>
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<td>Marshall Chambers</td>
<td>Barrow County Public Schools</td>
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<td>Marianne Chitwood</td>
<td>Indiana University</td>
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<tr>
<td>Tereza Cristina Carvalho</td>
<td>RNP (FAPESP)</td>
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<td>Nick Cross</td>
<td>AARNet</td>
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<td>Richard Greenfield</td>
<td>University of Alaska-Fairbanks</td>
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<td>John Hoolahan</td>
<td>AT&amp;T Corporation</td>
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<tr>
<td>Sally Jackson</td>
<td>Univ. of Illinois Urbana-Champaign</td>
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<td>John Killebrew</td>
<td>MCNC/NCREN</td>
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<td>George Laskaris</td>
<td>NJEDge.Net</td>
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<td>Lucy Lynch</td>
<td>Internet Society (ISOC)</td>
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<td>Steven C. Pirzhalski</td>
<td>Department of Veterans Affairs</td>
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<td>Don E. McLaughlin</td>
<td>West Virginia University</td>
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<td>Don R. McLaughlin</td>
<td>Univ. of California, San Diego</td>
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<td>Jim Mellander</td>
<td>LBNL</td>
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<td>Chris Misra</td>
<td>University of Massachusetts</td>
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<td>Kim Owen</td>
<td>North Dakota State University</td>
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<td>Brian Savory</td>
<td>ADVA Optical Networking</td>
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<td>Litsa Varonis</td>
<td>Univ. of Akron Main Campus</td>
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<td>Steven Worona</td>
<td>EDUCAUSE</td>
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<td>Ann Zimmerman</td>
<td>OARnet</td>
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Thanks to Our Meeting Sponsors
Welcome New Internet2 Members!

NITLE (National Institute for Technology and Liberal Education)
Northern Arizona University
Indian Health Services
University of Denver
TANDBERG
University of North Carolina At Greensboro
Unicon, Inc.
San Diego State University
Allstar Networks, LLC
AOC Connect, LLC
IOCOM
Yeshiva University
ANGEL Secure Networks, Inc.
Skidmore College
SFI Financial
The InCommon Certificate Service

- Unlimited SSL and personal certificates for a fixed annual fee
- Pricing based on Carnegie classification, Internet2 members receive a 25 percent discount
- Open to InCommon participants and to those who join InCommon
- Available Summer 2010
- Learn more Wednesday morning, 4/28/10 at the 7:30 EDT breakfast session in Salon G, and at www.incommon.org/cert
Internet2 Network Updates

- Continuing evolution of hybrid network direction to ensure members can leverage both shared IP and dedicated circuits capabilities
- Completed upgrade of backbone capacity from 10 to 20 Gbps on each network link with plans to add more capacity as needed.
- Completed upgrade to the latest Juniper routers across the core
- Introduced new connector fee options for greater research headroom and resiliency
- Total network traffic and available headroom continue to grow
Internet2 Backbone at a Glance
Internet2 Financial Outlook

Cash & Investments
Net Book Value of Prop & Equip

Purchase of new network.
(Cash in exchange for equipment.)

Equipment Depreciating.

Cash Reserves Increasing

2004  2005  2006  2007  2008  2009  2010
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$ -
$28.9
$24.3
$9.4
$10.5
$14.5

INTERNET2
Thomas Knab, Chair
IDEA Awards Judging Committee
Spring 2010 Internet2 Member Meeting
27 April 2010, Arlington, Virginia

INTERNET2 IDEA AWARDS
Internet2 IDEA Awards Concept

- Internet2 IDEA Awards recognize exemplary uses of advanced networking with substantial impact and benefit
- [www.internet2.edu/idea](http://www.internet2.edu/idea)
Internet2 IDEA Awards Judging Panel

- **Thomas Knab, Chair**
  Case Western Reserve University; Member of Applications, Middleware, and Services Advisory Council (AMSAC)

- **Michael Ackerman**
  National Library of Medicine, NIH; Member of AMSAC

- **Dennis Elwell**
  Verizon Communications; Member of AMSAC

- **Dave Gift**
  Michigan State University; Member of Architecture and Operations Advisory Council (AOAC)

- **Alan Whitney**
  MIT Haystack Observatory; Member of Research Advisory Council (RAC)
Internet2 IDEA Awards Judging Criteria

- Innovation in advanced network applications for research, teaching, learning and collaboration
- Magnitude of the positive impact of the application for its (current) users
- Technical merit of the application
- Breadth of impact, as indicated by current user base and likelihood of broader adoption by its full natural community of potential users

And the winning projects are...
EchoDamp

- A multi-channel audio mixer and echo controller for high-bandwidth musical videoteleconferencing
- Uses a dynamics-based algorithm rather than a frequency-based one (like Acoustic Echo Cancellation) to preserve the full frequency range of the audio signal
- Intuitive and easy-to-use controls work with any 4X4 (or larger) audio interface that supports CoreAudio on the Macintosh or MME, DirectSound, or ASIO on the Windows platform
- Available free to non-profit educational and performing arts institutions at echodamp.com
EchO damp collaborators

- Created by **Brian Shepard**, Assistant Professor of Pedagogical Technology, University of Southern California Thornton School of Music
- Internet2 community members helped test to ensure system’s readiness for production. Critical testers included:
  - **Scott Deal**, Professor and Associate Director of Music Research Programs, IUPUI (Indiana University Purdue University Indianapolis);
  - **Ben Fineman**, System Administrator, Internet2;
  - **Dan Nichols**, Head of Recording Services and Internet2 Multimedia Specialist, NIU (Northern Illinois University); and
  - **Justin Trieger**, Internet2 Systems Manager, New World Symphony
- www.echodamp.com
Research & Education Data Depot Network (REDDnet)

- NSF-funded project, provides large distributed storage facility for data-intensive collaboration among nation's researchers and educators
- Underlying Data Logistics Toolkit (DLT) provides a powerful platform for campuses to create bridges for data-intensive collaboration with national or regional infrastructure
- Integrates high-performance networking with unique storage technology designed for deployment scalability and fast data transfer within wide area networks
REDDnet collaborators

- **Paul Sheldon**, Professor of Physics and Director of the Vanderbilt Advanced Computing Center for Research and Education, Vanderbilt University (nominating applicant)
- **Micah Beck**, Associate Professor, Electrical Engineering and Computer Science, University of Tennessee, Knoxville
- **P. R. Blackwell**, Director, Columbia Regional Geospatial Service Center, Stephen F. Austin State University
- **Terry Moore**, Associate Director, Innovative Computing Laboratory, University of Tennessee, Knoxville
- **Martin Swany**, Associate Professor, Computer Science and Information Sciences, University of Delaware
- http://www.reddnet.org
• Standards-based, open-source solution for Web-based single sign-on across and within organizational boundaries
• Implements widely used federated identity standards, principally OASIS' Security Assertion Markup Language (SAML)
• Simplifies management of identity and permissions by allowing sites to make informed authorization decisions for individual access of protected online resources in a privacy-preserving manner
• Developed and supported by a growing international community
• Nominated by Jack Suess, Vice President of Information Technology and Chief Information Officer, University of Maryland, Baltimore County (institutional user)
Shibboleth® collaborators

- **Initial design team**
  - Steven Carmody, Project Manager, Brown University
  - Scott Cantor, Lead Developer, The Ohio State University
  - Walter Hoehn, formerly from the University of Memphis
  - Ken Klingenstein, Internet2
  - R. L. Bob Morgan, Lead Technical Architect, University of Washington

- **Additional team members**
  - Jim Fox, University of Washington
  - Nate Klingenstein, Internet2
  - Chad La Joie, formerly from the Swiss Education & Research Network (SWITCH)
  - Brent Putman, Georgetown University
  - Rod Widdowson, Edina/JISC
  - Ian Young, Edina/JISC

- [http://www.internet2.edu/shibboleth](http://www.internet2.edu/shibboleth)
Worldview

- Real-time 3-D network monitoring and visualization system
- Communicates network information to non-expert audiences
- Lets users search for real-time or historical network information using an intuitive, multi-touch interface
- Helps network engineers monitor end-to-end research data paths
- Users already imagining numerous ideas for other applications
Worldview collaborators

- Developed by IU’s Global Research Network Operations Center (GlobalNOC)
- Collaborators:
  - **David Jent**, Associate Vice President, Networks, Indiana University GlobalNOC (nominating applicant);
  - **Luke Fowler**, Manager, Systems Engineering, University Information Technology Services, Indiana University;
  - **Ed Balas**, GlobalNOC Software Architect, University Information Technology Services, Indiana University
- [http://globalnoc.iu.edu/worldview.html](http://globalnoc.iu.edu/worldview.html)
IDEA awards track session today!

- Learn more about the winning projects at a special track session
  - April 27, 2010, 4:30pm EDT
  - Salon H
INTERNET2

RICHARD ROSE AWARD
Internet2
Richard Rose Award Winner
2010

David Lassner
Vice President and Chief Information Officer of the University of Hawaii
Aneesh Chopra
Chief Technology Officer & Associate Director for Technology
White House Office of Science & Technology Policy
Spring 2010 Internet2 Member Meeting
27 April 2010, Arlington, Virginia

“INNOVATION IN AMERICA”