



## Health Sciences Meeting Recommendations

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### Sunday, October 7th

8:30 AM - 8:30 PM Registration Desk Open

6:30 PM - 8:30 PM International Reception (Invitation Only) Tiki Pavilion

At each member meeting we host this reception to provide our International Partners greater opportunities to meet and speak with others around the globe committed to the continued global interoperability of advanced networking, and enabling collaboration between U.S. researchers, faculty, students and their overseas counterparts.

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### Monday, October 8th

8:00 AM - 12:00 PM Special Interest Group on Emerging Research & Education Networks

The mission of this Internet2 Special Interest Group (SIG) is to bring together the international community to address advancing the state of high-performance networking for research and education in under-served places around the world. Breakfast will be available from 8:00-9:00am.

9:00 AM - 11:00 AM Internet2 Overview: Engagement, Network and Services

This session provides a basic overview of Internet2, covering the concepts and terminology in advanced network services, middleware and applications. It will also provide information to help attendees understand how to engage with the Internet2 community, with a focus on current projects, initiatives and working groups. The session will also include information about a variety of services that are available to the Internet2 membership and community. Some of the services that will be presented include: the Internet2 Commons, InCommon, Internet2 outreach resources, End-to-End Performance Tools, FiberCo Professional Services, to name a few. The session is open to all Internet2 member representatives and meeting attendees, and those new to Internet2 member meetings and the Internet2 community are particularly encouraged to attend. There will be plenty of time to ask questions of and interact with Internet2 staff and other attendees.

10:30 AM - 12:00 PM Signet/Grouper Working Groups

This joint Signet and Grouper Working Group meeting will focus on needs illuminated by recent adoption experiences, updates on latest releases, brief reports on new work, and prioritization of future work items.

11:45 AM - 1:15 PM Unified Federated Diagnostics BoF

The ability to manage diagnostic artifacts of distributed systems and networks has become daunting. Given the wide variety of log/event format types, access methods as well as privileges to the logs themselves, not to mention the scale of the data store needed, has led us to a different paradigm to bring value to the application, system, network, and security administrator. This BoF will be focused on discussing requirements for building a next generation diagnostic toolset using a framework built on the EDDY (End-to-end Diagnostic DiscoverY) - The Diagnostic Initiative and Developers Toolkit.

11:45 AM - 1:15 PM Disaster Planning & Recovery BoF

11:45 AM - 1:15 PM Lunch

2:15 PM - 4:15 PM Collaboration Tools and Identity Management

4:30 PM - 6:00 PM Shibboleth Working Group

6:30 PM - 8:30 PM Welcome Reception Tiki Pavilion and Pool Area

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### Tuesday, October 9th

7:30 AM - 8:45 AM South Asia SIG Planning meeting

8:45 AM - 10:00 AM            Convergence, Collaboration, and Connectivity: Creating a New Paradigm of Experiential Learning Through Technology, Intermediality, and the Art of Theatre / The Philadelphia Orchestra Internet2 Concert Series

During March 2007, an extraordinary creative event took place that encompassed the work of three universities, four outstanding artist/administrators, over 100 student collaborators from seven academic departments, over 2,000 attendees, a Pulitzer Prize winning dramatist, and an unprecedented array of the most sophisticated rendering and communication technology ever assembled for a college theatre production. For this event, students, faculty, and staff from the Department of Theatre Arts and the Multimedia Program at Bradley University (USA) collaborated with cohorts over a thousand miles away at the University of Waterloo (Canada) and the University of Central Florida (USA) to develop and present a fully meditated production of Elmer Rice's expressionistic play "The Adding Machine" that integrated virtual scenery, DVTS broadcast video via Internet2, recorded video, avatar performers, photographs, graphics and sound (<http://addingmachine.bradley.edu/>). While a technological and artistic success, this production was also a significant interdisciplinary learning experience that transcended and exceeded national boundaries and academic disciplines. The convergence of interdisciplinary learning, collaborative problem solving, and creative production with multimedia and streaming video technologies created a dynamic experiential learning paradigm that opened students' minds to new possibilities. This session will address many facets of this collaboration from the pedagogical and administrative to the artistic, dramaturgical, and the technical.

The Philadelphia Orchestra, the first professional orchestra to join Internet2, will transmit a series of live concerts, via MAGPI and Internet2 to educational and cultural institutions both in the U.S. and abroad starting in the 2007-2008 academic year. These concerts will be enhanced with both live and pre-recorded content during pre-concert, intermission, and post-concert periods. This presentation will discuss the technical challenges and solutions encountered with multi-national, multicast transmissions, with a particular focus on the visual and audio experience at the remote sites. Of additional interest will be the discussion of on-campus infrastructures, E2E performance issues, technical matters involving stage production aspects, streaming technologies and lessons learned during the 2006-2007 pilot multicast series. The Philadelphia Orchestra staff will also share the educational significance surrounding such a concert series, describing 'How to make Classical Music Content Compelling using Electronic Media' and the results of a 'Feasibility Study of Internet2 Digital Broadcasts.'

8:45 AM - 10:00 AM            Middleware: The Big Picture Gets Bigger

This session will provide an update on the state of projects and technologies developed and promoted by the Internet2 Middleware Initiative in the areas of identity management, authentication, federation, authorization, and support for collaboration. As global uptake continues to grow, new software releases address requirements of scale, integration, ease of use, and interoperability, benefiting from feedback based on real usage and open-source contributions from the worldwide research and education community.

8:45 AM - 10:00 AM            Finding Collaborators Worldwide

Across the globe, there are several exciting new initiatives underway to connect collaborators in new, robust ways leveraging web 2.0 and social networking sites. In the US, the Internet2 K20 Initiative has developed such a social networking system to help connect advanced network-enabled innovators across the K20 community to each other and to other communities around the world. In the UK, JANET Collaborate Pilot Project has been recently launched with the aim of allowing educators in schools, colleges and museums to find opportunities to collaborate with each other. And, elsewhere in the world including (Australia, The Netherlands, and Switzerland) similar efforts are underway to answer the perennial question of how to find resources, people, and collaboration opportunities for use in education. The panel on social networking sites will include James Werle, Co-Chair K20 Initiative; Jennifer Oxenford; Associate Director, MAGPI; and Robert Symberlist (virtual/unconfirmed). In addition to presenting their case-studies, other issues to be covered by the panel include underlying architecture, multi-linguality, authentication, and data protection/privacy.

10:15 AM - 11:45 AM            General Session

11:45 AM - 1:15 PM            Health Sciences Planning Session

This is a regularly scheduled meeting of those interested in the Health Sciences to review and plan activities for the coming year. We will have a presentation about the Brazilian partnership and will discuss the work plan that will be developed.

1:15 PM - 2:30 PM            Implications of Rapidly Evolving Gerontechnologies for High Speed Networks

Information and communications technologies (ICT) have undergone extraordinary advances in the past 5 years. Two aspects of these developments are discussed along with their implications for gerontechnology. First, international high speed Internet networks serving the academic community are poised to inform the public's computer networks of tomorrow. Second, computational systems that increasingly penetrate every facet of the built environment, for instance, transportation, clothing, furnishings, personal items, and home environmental control and security will be discussed. Over time such embedded systems are being integrated into large wired and wireless networks of devices which may extend over international boundaries. High bandwidth networked applications in development include multipoint videoconferencing using multicast IPv6 protocols, telepresence, virtual reality simulations and remote sensing for gathering data in built environments. Examples of how these developments create new applications for all four of the goals of gerontechnology - prevention, compensation, care and enhancement of quality of life - are provided. Enhanced technological services for the elderly will develop, including transportation guidance, nutritional monitoring, safety and security, mental health and healthcare, environmental control, and communications. International networks promise more uniform care standards for the elderly, increase the opportunity for collaboration among researchers and educators tackling the difficult problems associated with aging, including dementia, heart disease, diabetes and obesity. Networks have the promise of enhancing outcomes by maximizing economies of scale by collecting research observations from multiple international venues. New educational approaches addressing the challenges of aging include virtual reality applications which simulate the impact of aging for young individuals. Monitoring individuals in their homes using ICT and computer networks can impose significant ethical responsibilities upon governing agencies.

1:15 PM - 2:30 PM            Disaster Recovery: Lessons Learned From hurricane Katrina  
This panel of three presenters will each give their perspective on lessons learned during the aftermath of hurricane Katrina. Two of these institutions were directly affected by Katrina while the third was called upon to help with recovery efforts. Discussions to include what worked and what didn't while trying to return to normal university business. From a network perspective, what services need to be re-established, in what order and what were the costs involved? Attendees of this session should come away with a real understanding of how Katrina affected these institutions and hopefully gain insight into how to better prepare themselves for future disasters.

3:00 PM - 4:00 PM            ARCA - Federated Access to Multimedia Content  
ARCA is a system able to offer a consistent view of multimedia contents available at different institutions by means of a federated approach. It automatically collects all the information available at the participant sites, in the format of XML documents (RSS 2.0) built from the descriptions of the multimedia contents offered by those sites. This information is then consolidated by the portal and offered to users by means of different search and browsing interfaces, supporting different event ontologies. ARCA is in use by the RedIRIS community, and being deployed by TERENA. Ten institutions have joined the RedIRIS ARCA federation since its initial announcement in November 2006, and the portal offers access to more than 1000 content references, plus the live events available at the servers of the participants. ARCA is an open and collaborative project, led by the University Carlos III of Madrid, with the collaboration of RedIRIS and four other Spanish universities. The ARCA development site is at the University Carlos III of Madrid (<http://arca.uc3m.es/>), and the operational site for the RedIRIS content federation is at <http://www.rediris.es/> (Please select "English" as the interface language at the main portal page)

4:30 PM - 5:30 PM            NIST It By That Much: The Federal Cyber Security Outlook  
Cyber Security policy within the Federal Government has become increasingly compliance-oriented since the passage of FISMA (Federal Information Security Management Act, and the impacts of this are beginning to be felt within the R&E community through grant conditions, FFRDC (Federally Funded Research and Development Center) rules, and more. At the same time, this focus has led to the production of voluminous cyber security policies, some of which are potentially useful to R&E and some of which are clearly detrimental. This presentation will focus on the history, context, and current state of Federal IT compliance as it impacts the R&E community. The presentation will include an analysis of the NIST and OMB guidance both in terms of how they can be potentially helpful in a university environment, and how they can be interpreted to be quite restrictive and potentially at odds with a research mission. The discussion will include examples of applying the NIST methodology at both UCSF and throughout the Department of Energy National Laboratories, with a focus on how to best utilize the concepts without undue burden. The presentation will conclude with a discussion of the regulatory outlook with regards to Federal cyber security policy.

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### Wednesday, October 10th

7:15 AM - 8:45 AM            Collaboration SIG  
Why aren't advanced real-time collaboration tools being used more widely? What are some examples of projects that are successfully using them? What are the advanced technologies that warrant our experimentation and pilot use? Come share your thoughts and experiences and listen to ours as we try to create a community of users through this Special Interest Group devoted to promoting the successful adoption of advanced collaboration tools.

8:45 AM - 10:00 AM           Report on the Orthopaedic Research and Education Network of Africa and the Middle East  
During 2007 SICOT, GDLN (World Bank) and Internet2 have expanded the orthopaedic research and education to five countries in North Africa, five countries in Sub-Sahara Africa and five countries in the Middle East. There will also be discussion regarding the establishment of Cairo as the Education Hub of Africa and the Middle East. During the session presentations from Africa and the Middle East will be made. Last year we presented a program on the Latin America and the Caribbean and next year we will be able to present a program on Asia and the Pacific. We will also report on the Global Forums on Road Traffic Trauma. We will have participants from the State Department, Health and Human Services Department, and Center for Disease Control and Prevention.

10:30 AM - 11:45 AM           Medical Education of the Future using Advanced Networks and Today's Technology  
This session will describe and demonstrate a rich interaction between instructors and students that recreates all of the features of a normal classroom session in addition and several new capabilities. It will be small group session, in which one or two instructors and eight students, each on individual video feeds, interact with one another and mark up common high quality medical images in real time.

11:45 AM - 1:15 PM           Lunch

1:00 PM - 5:00 PM            Demonstrations at San Diego Supercomputer Center and Calit2

6:00 PM - 9:30 PM            Gala Event at The Birch Aquarium

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### Thursday, October 11th

7:15 AM - 8:45 AM            Rural Health Care Networking - FCC Order  
This is a continuation of discussions regarding the FCC Order for rural health care. We will have discussions on application development and demonstrating capabilities.

8:45 AM - 10:00 AM            Planning for Certain High Risk Security Incidents

Institutions cope with many different types of security incidents. Some incidents, such as viruses or other malware, represent chronic threats. Others, such as DDOS attacks, represent more acute threats. Today we'll talk about a third category, one which is potentially exceptionally painful, but also hopefully exceptionally rare -- incidents which can have catastrophic impacts not just on a single institution, but on an entire region or the country as a whole. We'll discuss two examples from this category: pandemic flu, and electromagnetic pulse (EMP). These are serious threats which have garnered substantial funding and ongoing attention at the federal level, but which many schools and other private sector entities have only begun to consider. We'll describe and explain these risks and their potential impact on the country and your institution, describe the unique challenges that "low probability/high pain" events potentially represent, and talk about cost-effective steps your institution can take to harden itself against these threats.

10:15 AM - 11:45 AM        General Session

11:45 AM - 1:15 PM        Lunch