INTERNATIONAL DIGITAL CINEMA MICROSCOPY PROJECT WINS CENIC'S 2012 INNOVATIONS IN NETWORKING AWARD FOR EXPERIMENTAL/DEVELOPMENTAL APPLICATIONS

March 15, 2012 — La Mirada, CA — An international collaboration to stream live, ultra-high-definition, 60 frame per second microscopic video at the Tokyo International Film Festival has been honored by the Corporation for Education Network Initiatives in California (CENIC) as recipient of the **2012 Innovations in Networking Awards for Experimental/Developmental Applications**.

Live digital cinema streaming and the sharing of high-resolution scientific imaging have emerged as "killer apps" for advanced networks, and during the Tokyo International Film Festival's CineGrid session in October of 2011, they were combined with microscopy at 4k/60P for the first time, as 4k microscopic images of living microorganisms at 60 frames per second were captured and streamed live from the University of Southern California (USC)'s School of Cinematic Arts across the Pacific Ocean to an audience in Tokyo. Network connectivity provided by USC, CENIC, AboveNet , CineGrid, CISCO Cwave, Pacific Wave and Japan's JGN-X formed the 10 Gigabit trans-Pacific path that enabled this event.

USC Cinematic Arts' Richard Weinberg, project leader, and international digital media research consortium CineGrid had previously demonstrated simultaneous 4k microscopic image capture and live HD streaming from USC to UCSD in San Diego and to the SIGGRAPH Asia conference in Yokohama, Japan in 2009. With the addition of Nippon Telegraph and Telephone (NTT) Network Innovation Laboratory members and JPEG2000 codec technology to the project, the demonstration in October 2011 brought a dramatic increase in the resolution of the live image transmission, increasing the resolution from HD to 4k/60fps, achieving a fourfold increase in number of pixels and a doubling of the frame rate. Members of the audience in Tokyo witnessed the benefit of seeing live aquatic microorganisms, invisible to the naked eye, at the highest resolution and frame rates yet achieved at that distance, with less than a second's delay from Los Angeles.

Four Innovations on Networking Awards are given annually by CENIC to highlight exemplary innovations that leverage ultra high-bandwidth networking, particularly where those innovations have the potential to revolutionize the ways in which instruction and research are conducted, or where they further the deployment of broadband in underserved areas.

About CENIC • www.cenic.org

California's education and research communities leverage their networking resources under CENIC, the Corporation for Education Network Initiatives in California, in order to obtain cost-effective, high-bandwidth networking to support their missions and answer the needs of their faculty, staff, and students. CENIC designs, implements, and operates CalREN, the California Research and Education Network, a high-bandwidth, high-capacity Internet network specially designed to meet the unique requirements of these communities, and to which the vast majority of the state's K-20 educational institutions are connected. In order to facilitate collaboration in education and research, CENIC also provides connectivity to non-California institutions and industry research organizations with which CENIC's Associate researchers and educators are engaged.

Media Contact:
Janis Cortese
Publicity and Communications Manager, CENIC
(818) 823-3677
jcortese@cenic.org