NPACI & SDSC ONLINE

Volume 3, Issue 20 - September 29, 1999

Calendar - Search - Archives

EdCenter Takes First Steps Toward Collaboration with Mexican Universities and Researchers

SAN DIEGO STATE UNIVERSITY -- Progressing on a partnership launched May 20 with the announcement that CENIC would collaborate with CUDI (its Mexican counterpart), San Diego State University (SDSU) hosted CUDI Director Carlos Casasus at the Education Center for Computational Science and Engineering. The meeting was a follow-on of discussions begun June 9 when Ed Center Director Kris Stewart, SDSU faculty members Eric Frost and Bob Pozos, and SDSU networking director Kent McKelvey met with researchers of CICESE, one of the lead Mexican institutes in the areas of oceanography, earth sciences, and applied physics. The June visit to Ensenada was to begin collaboration on the Virtual Learning Space (VLS) project, which is a CENIC-CUDI partnership objective. Tom West, Director of CENIC, and Carlos Casasus led a major meeting in July that brought together university, corporate, and government groups working on this project.

The Ed Center is an NPACI education and outreach project that focuses on integrating computational science and advanced computing tools into the undergraduate curriculum of the California State University (CSU) system. The Ed Center is also leading SDSU's participation in CalREN-2, California's segment of the national Internet2 initiative, which is managed by CENIC (the Corporation for Education Network Initiatives in California). CENIC is a not-for-profit corporation formed by the California Institute of Technology, the CSU system, Stanford University, the University of California system, and the University of Southern California, to advance the use of communications technology in research and education at California's universities.

Internet2 is an initiative of the academic community that is using the creation of advanced computational applications to drive the development of the next generation Internet. CUDI, the Corporación Universitaria para el Desarrollo de Internet, is Mexico's higher education network. On May 20, California Governor Gray Davis and Mexican President Ernesto Zedillo Ponce de León endorsed the plan to link CUDI to CalREN-2 so that researchers and faculty at major universities throughout the U.S. and Mexico can use Internet2 to facilitate collaborative research and education projects.

The objective of the VLS project is to promote transborder-global efforts in pursuit of high quality education and collaborative research projects by joining human and physical resources using advanced high-speed networks. This matches well with the Ed Center mission of transforming undergraduate education through the use of resources and applications made possible through high-performance computing. SDSU has been working with its sister university CICESE (the Centro de Investigacion Cientifica y de Educacion Superior de Ensenada) for several years now, doing joint development for collaborative research and teaching. An E1/T1 link to CICESE was established by SDSU several years ago and numerous classes in earth sciences have been taught using this early system, which paved the way for the much higher bandwidth applications now

being developed in the Internet2 efforts of both countries. Other VLS participants will be CITEDI, a Mexican research institute in digital technologies located in Tijuana, the University of Baja California, and Telnor, a regional subsidiary of TelMex in Baja California.

CUDI Director Carlos Casasus at the September 9 Ed Center meeting.

At the Ed Center, Casasus discussed three major points for collaboration with the Center and SDSU, in addition to the VLS. These include using group purchasing and leverage power to obtain access to appropriate digital libraries, connecting distributed campuses within the Mexican university systems to each other, and delivering education and training to and from the U.S. and Mexico.

"There are resources that we have here that we can begin sharing with our colleagues across the border," Stewart said. "They are in great need of technical journals, for example. They will be reciprocating and providing SDSU with materials that will be incorporated into our curricula, especially about Mexican history, art, and business."

Collaboration involving experts and learners in both university systems may also begin on oil and gas exploration techniques and supporting software. Rob Mellors, a current Faculty Fellow in the EdCenter, and Eric Frost, a past Faculty Fellow, will both be involved to teach and coordinate such collaborative interaction for oil exploration. Bob Pozos will be involved in using similar software to do three-dimensional imaging for human physiology and tele-medicine applications.

"We're excited to extend our NPACI and Internet2 mission and collaborate with our colleagues in Mexico," Stewart said.

"This will provide a template for delivering high-end collaborative visualization to the world, with Mexico and the U.S. as partners reaching out to the world in such areas as Central Asia, Nigeria, and Indonesia," said Frost.