“OptIPuter: From the End User Lab to Global Digital Assets"

Panel

UC Research Cyberinfrastructure Meeting

Calit2@UCSD

October 10, 2005

Dr. Larry Smarr

Director, California Institute for Telecommunications and Information Technology

Harry E. Gruber Professor,

Dept. of Computer Science and Engineering

Jacobs School of Engineering, UCSD

The OptIPuter Project –

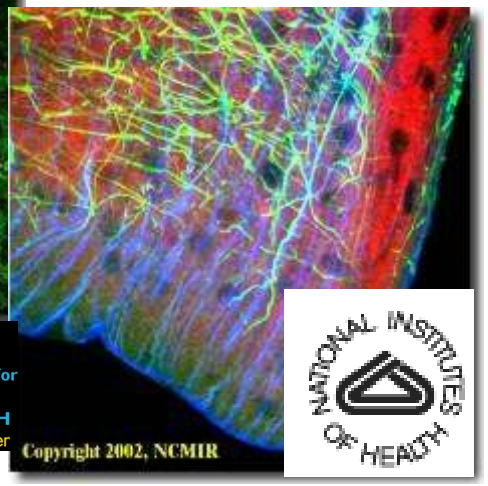
Creating a LambdaGrid "Web" for Gigabyte Data Objects

- **NSF Large Information Technology Research Proposal**
  - Calit2 (UCSD, UCI) and UIC Lead Campuses—Larry Smarr PI
  - Partnering Campuses: USC, SDSU, NW, TA&M, UvA, SARA, NASA
- **Industrial Partners**
  - IBM, Sun, Telcordia, Chiaro, Calient, Glimmerglass, Lucent
- **$13.5 Million Over Five Years**
- **Linking Global Scale Science Projects to User's Linux Clusters**

OptIPuter

NIH Biomedical Informatics Research Network



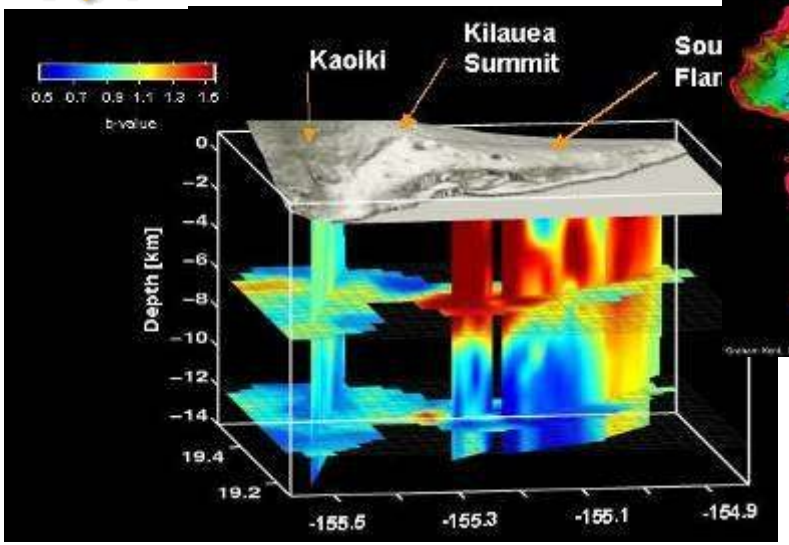


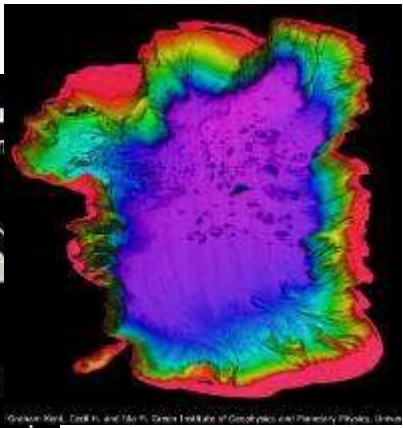
NCMIR
NATIONAL CENTER for MICROSCOPY and IMAGING RESEARCH
at San Diego, an NIH supported resource center

NATIONAL INSTITUTES OF HEALTH

NSF

NSF EarthScope and ORION





UCSD
UCIrvine

SDSC
SAN DIEGO SUPERCOMPUTER CENTER

it2

First Remote Interactive High Definition Video Exploration of Deep Sea Vents



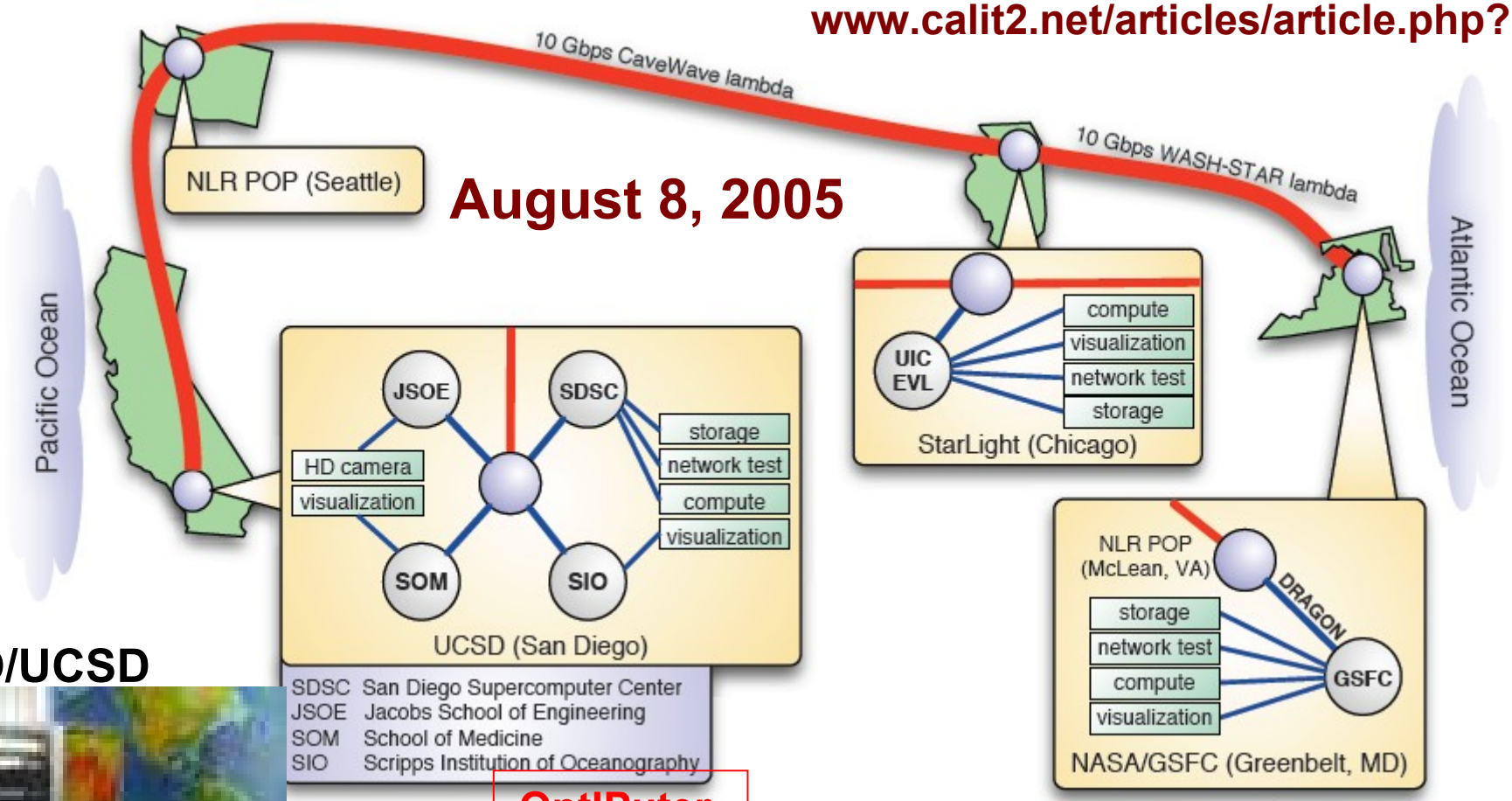
UCSD
UCIrvine

Source John Delaney & Deborah Kelley, UWash

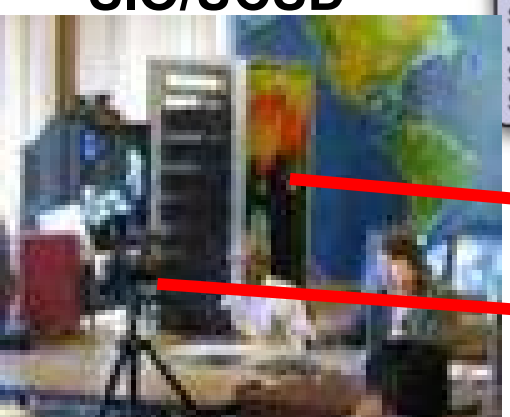
it2

Combining Telepresence with Remote Interactive Analysis of Data Over National LambdaRail

www.calit2.net/articles/article.php?id=660



SIO/UCSD



OptIPuter Visualized Data

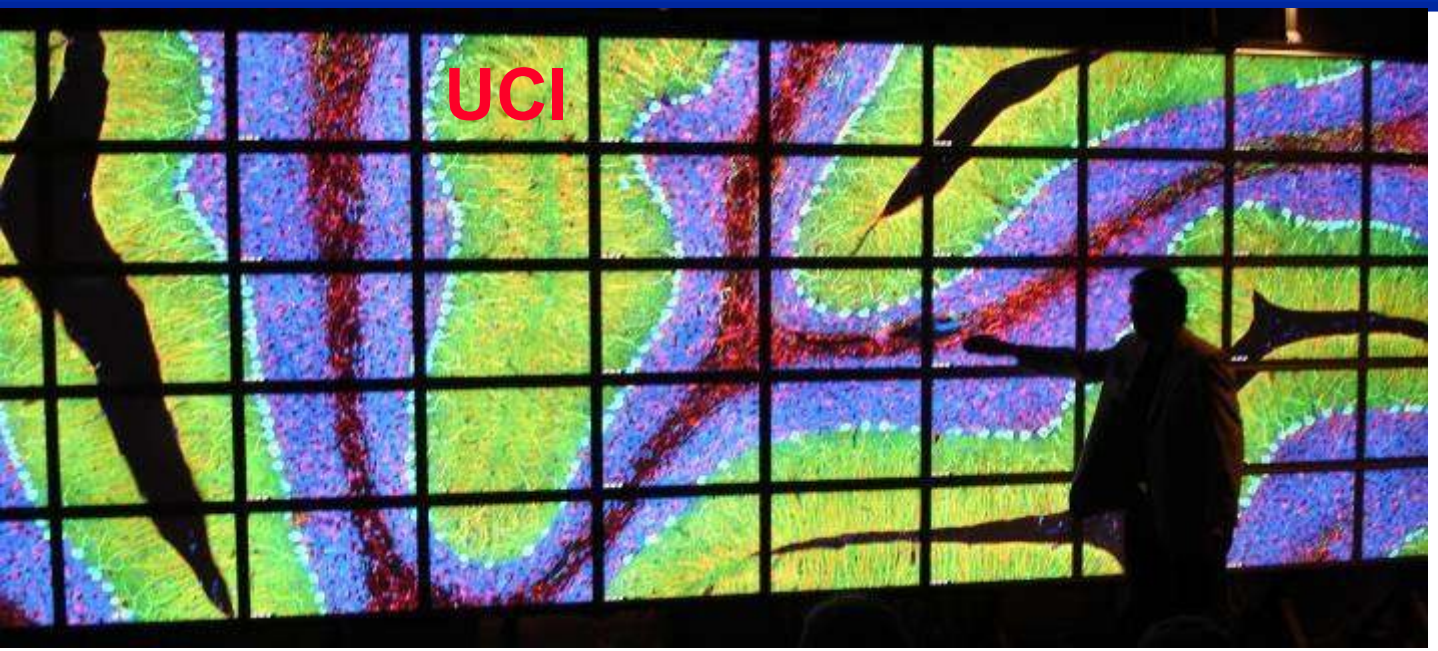
HDTV Over Lambda



NASA Goddard

UCSD
UCIrvine

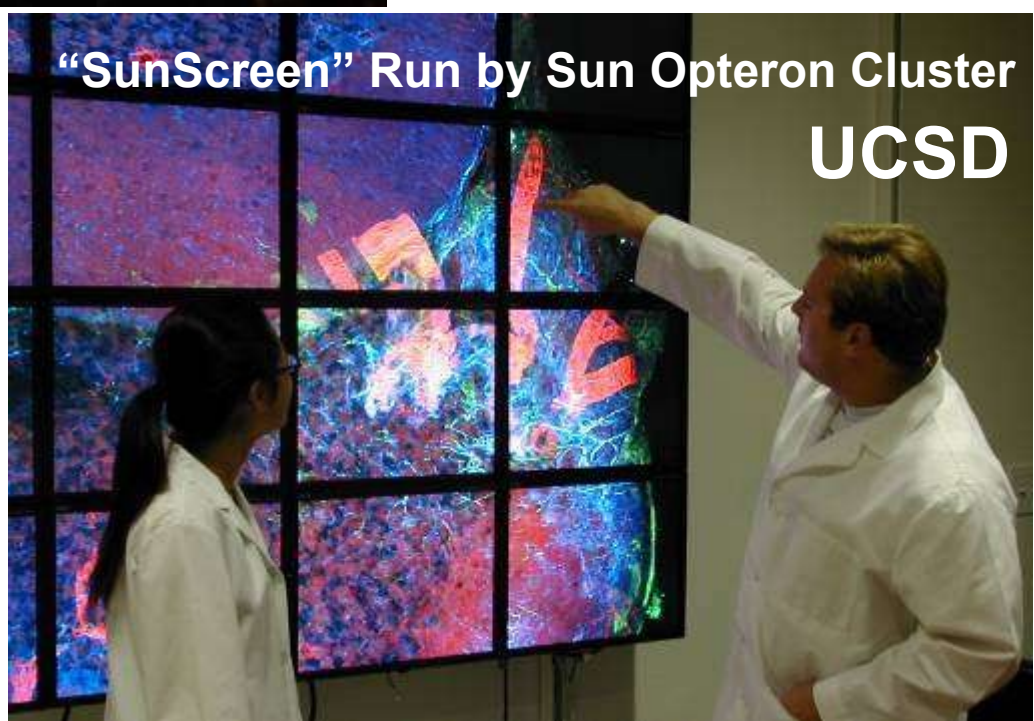
The OptIPuter Enabled Collaboratory: Remote Researchers Jointly Exploring Complex Data



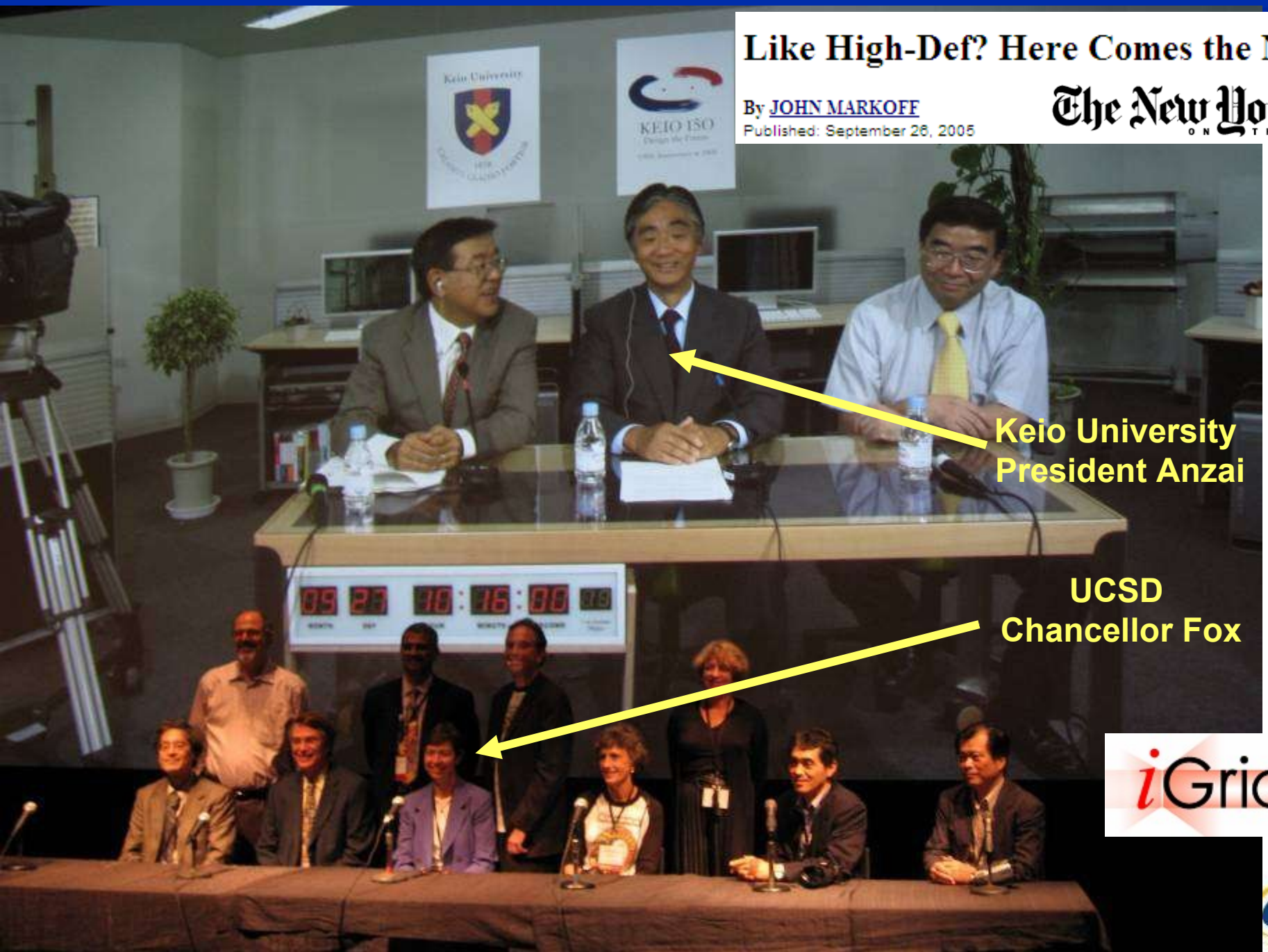
OptIPuter

OptIPuter will Connect
The Calit2@UCI
200M-Pixel Wall
to
The Calit2@UCSD
100M-Pixel Display
With Shared Fast Deep Storage

UCSD
UCIrvine



First Trans-Pacific Super High Definition Telepresence Meeting in New Calit2 Digital Cinema Auditorium



Like High-Def? Here Comes the Next Level

By JOHN MARKOFF
Published: September 26, 2005

The New York Times ON THE WEB

Keio University President Anzai

UCSD Chancellor Fox

Lays Technical Basis for Global Digital Cinema

Sony
NTT
SGI

iGrid 2005

it2

Calit2 Has Been Working with CENIC to Provide the California Optical Networks for CineGrid

Partnering with SFSU's Institute for Next Generation Internet

SFSU

UCB

Discussions with CITRIS

Digital Archive of Films

Prototype of CineGrid

Calit2's CineGrid Team is Working with Cinema Industry in LA and SF

In addition, 1Gb and 10Gb Connections to:

- Seattle, Asia, Australia, New Zealand
- Chicago, Europe, Russia, China
- Tijuana, *Rosarita Beach, Ensenada*

USC

Extending SoCal OptIPuter to USC School of Cinema-Television

UCSD
UCIrvine

Calit2 UCI

Calit2 UCSD

