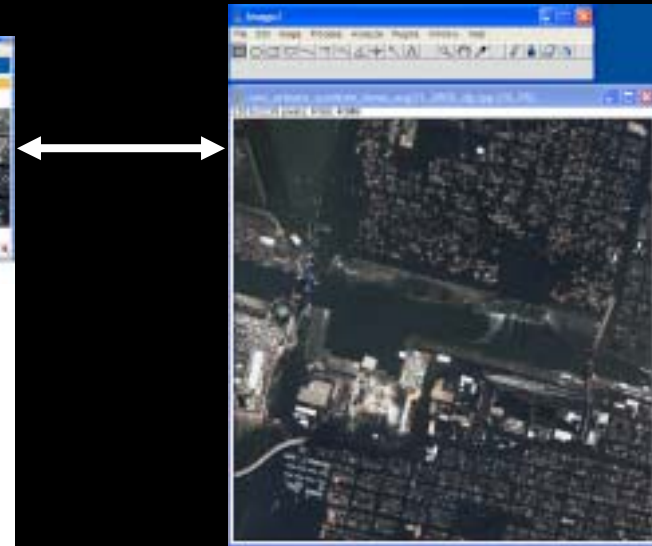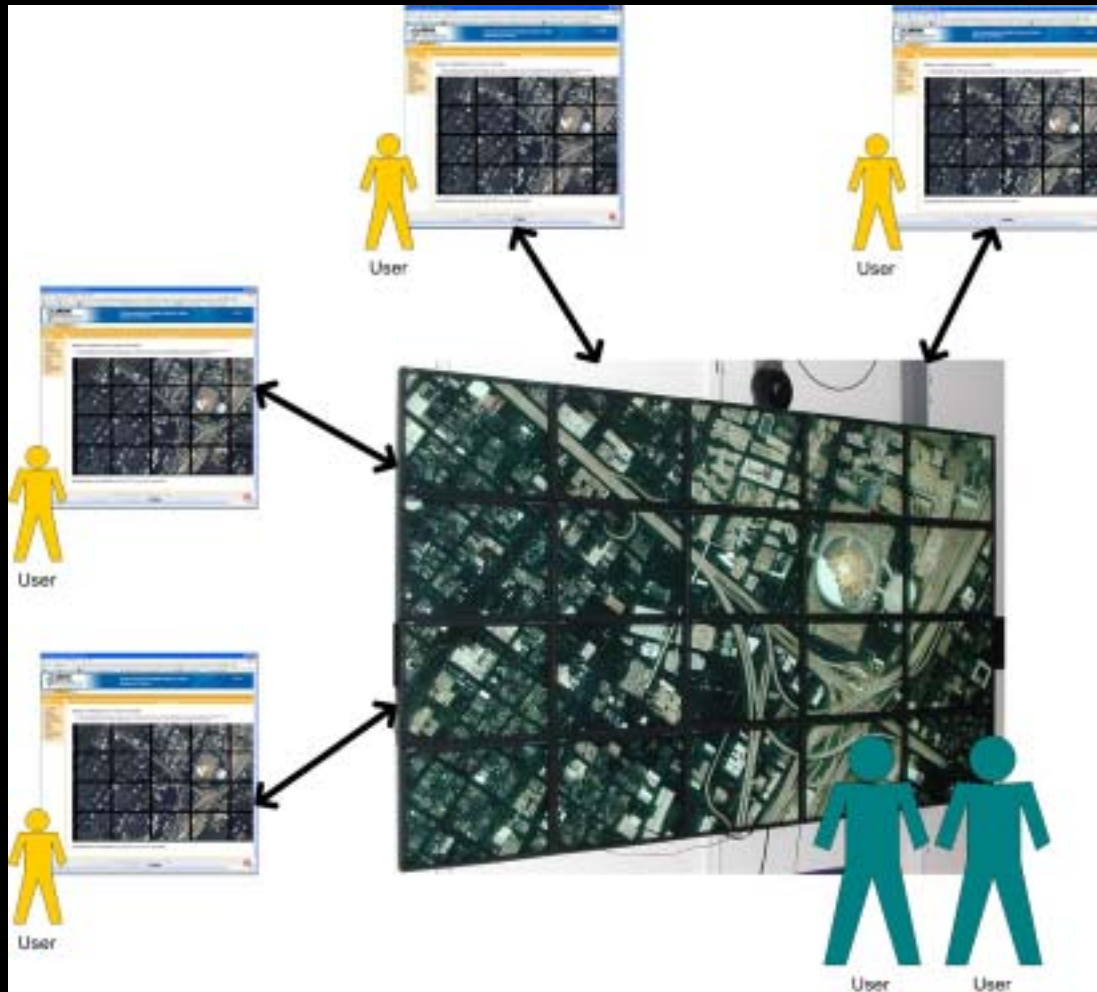# OptIPortals

Raj Singh

National Center for Microscopy and Research

Research problems we aim to solve

- Desktop like environment For Tiled Displays

- Seamless integration of 2D, 3D, n-D data with HD+ video conferencing

- Live feeds from instruments and data repositories.

- Sessions

- Web interfaces and UI for Joe Scientist

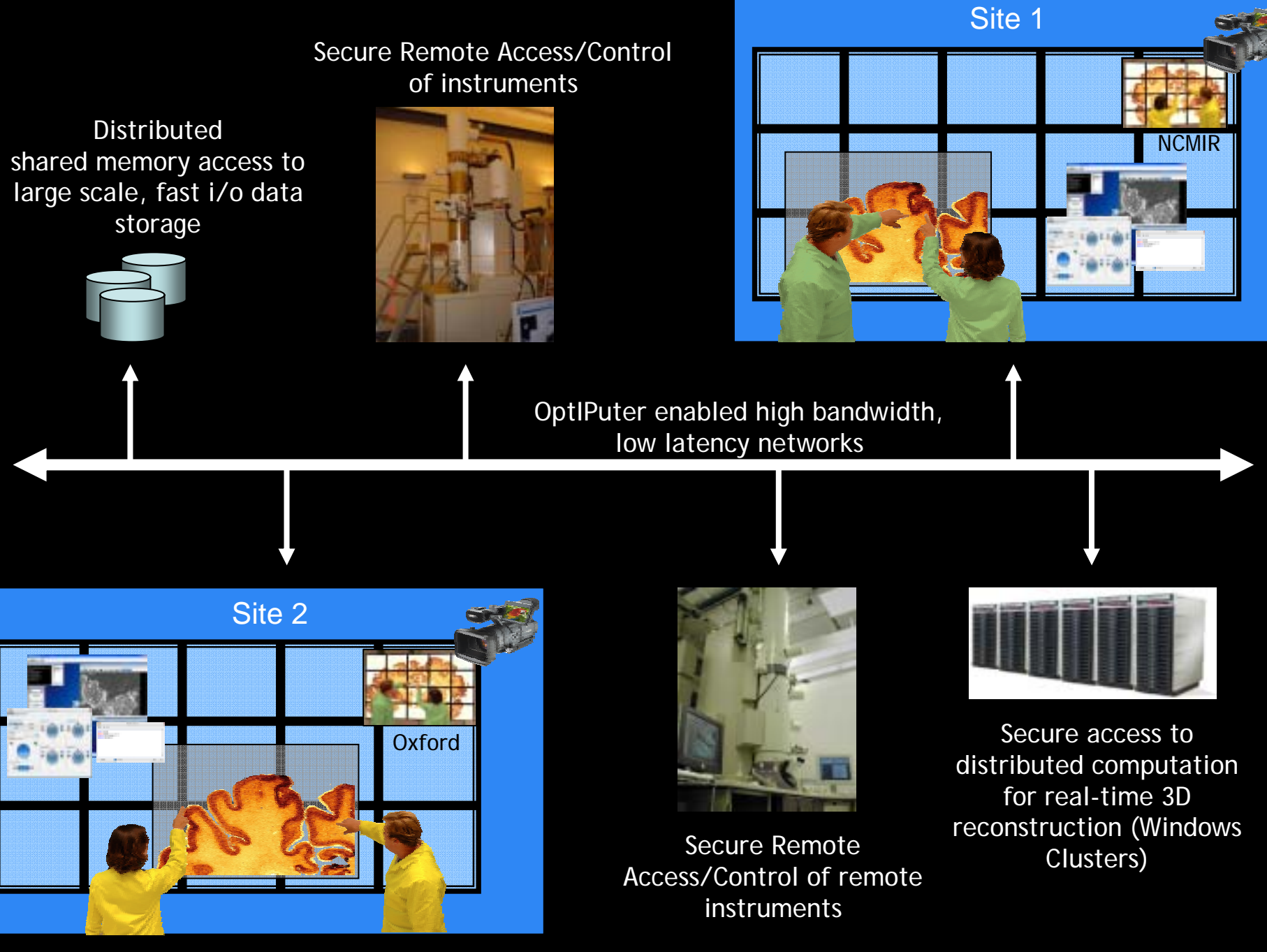# Scientific Portals for Collaborative Research Environments

Shared Visualization

SC 06 Demo

OptIPortals @ SC06
Collaborative Multiscale Multisite Interaction

Distributed shared memory access to large scale, fast i/o data storage

Secure Remote Access/Control of instruments

Site 1

NCMIR

OptIPuter enabled high bandwidth, low latency networks

Site 2

Oxford

Secure Remote Access/Control of remote instruments

Secure access to distributed computation for real-time 3D reconstruction (Windows Clusters)

Plan for SC '07

- Windows based viz walls in Oxford and Reno
  - 4x2 – 27 Megapixel wall
- Windows version of SAGE 2.0
  - Possibly visualcasting
- HD video conferencing
  - With Conference XP
  - With VLC
- Magic Carpet for large 2D image viewing
- New 3D large volume rendering software by EVL