

# GLIF Research & Applications Working Group

September 30, 2005

Larry Smarr and Maxine Brown



Image courtesy of Steve Wallace

# GLIF RAP: Goals

- **Goal: To train a new generation of scientists on the use of supernetworks**
- **TECH Group is focusing on lambda connectivity to the campus edges. RAP group advocates getting lambdas from the campus edge to the laboratory, to provide an end-to-end solution.**
- **Focus on three areas**
  - **User Applications**
  - **Infrastructure**
  - **Research**

# GLIF RAP: User Applications

- **User Applications – *Larry Smarr and Maxine Brown***
  - Generate more users and applications using the GLIF infrastructure
    - Create taxonomy
    - Archive teaching materials from centers that teach scientific applications using lambdas (e.g., UK e-Science Center teaches “Networks for Non-Networkers”)
    - Create liaisons with other groups
  - Applications collected by iGrid 2005 are of interest to the RAP Group. RAP wants to develop a *taxonomy* defining classifications of LambdaGrid applications
    - Need to do a post mortem
    - Obtain quantitative measurements (bandwidth, burstiness, size of data files, etc). What would the GLIF TECH Group find useful?
    - What do scientists do with lambdas that they couldn't do with a production network?

# GLIF RAP: Infrastructure

- **Infrastructure – Jason Leigh**
  - *Live the Dream:* interconnect GLIF sites with HD video teleconferencing, tiled displays, etc.
    - Create a living (persistent) demonstration; show by doing
    - Global Lambda Visualization Facility is connecting 6-8 OptIPuter sites this year

# GLIF RAP: Research

- **Research – Cees de Laat**
  - Research coordination and roadmaps on various topics:
    - **Devices: Photonic devices, modules**
    - **Architectures (e.g., Optical burst switching, JIT, WSS, StarPlane, portsite)**
    - **Integration**
  - Advocate new research programs by funding agencies
  - Advocate new hardware/software development by industry