

High Performance Digital Media Network (HPDMnet): **Dynamically Provisioned** Inter-Domain International Service for **High Performance Digital Media and Other Data Intensive Applications**

> Joe Mambretti and the HPDMnet Consortium 12th Annual Lambda Grid Workshop Chicago, Illinois October 11-12, 2012





Overview

- Several Years Ago, An International Consortium of Research Centers Established a Cooperative Partnership To Address Key Challenges and Opportunities Related to Using Dynamically Provisioned Lightpaths for High Performance Digital Media (HPDM) and Other Data Intensive Applications
- Multiple Sites Require Controlled, Deterministic High Performance/High Volume/High Definition Digital Media Streaming Simultaneously Among All Locations (Point-To-Multipoint, Multipoint-To-Point, Multi-Point to Multi-Point)
- HPDMnet Is:
 - **A Persistence Network Research Testbed**
 - A Set of Prototype Services
 - **Capability for Experimental Digital Media Content**

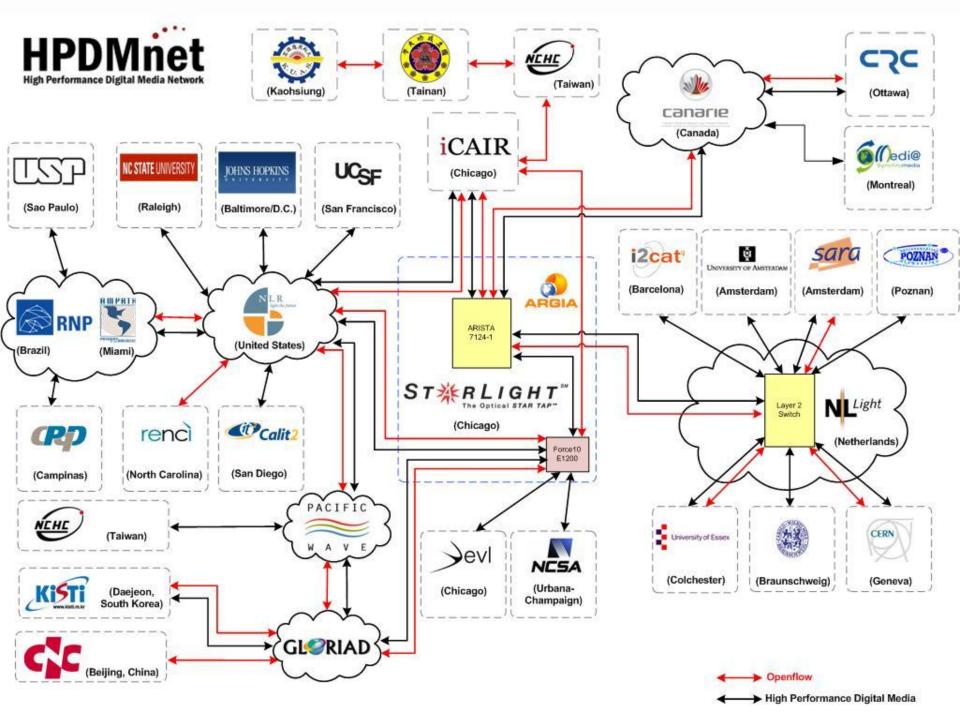


HPDMnet Consist 5 Working Groups Today:

- Infrastructure Working Group

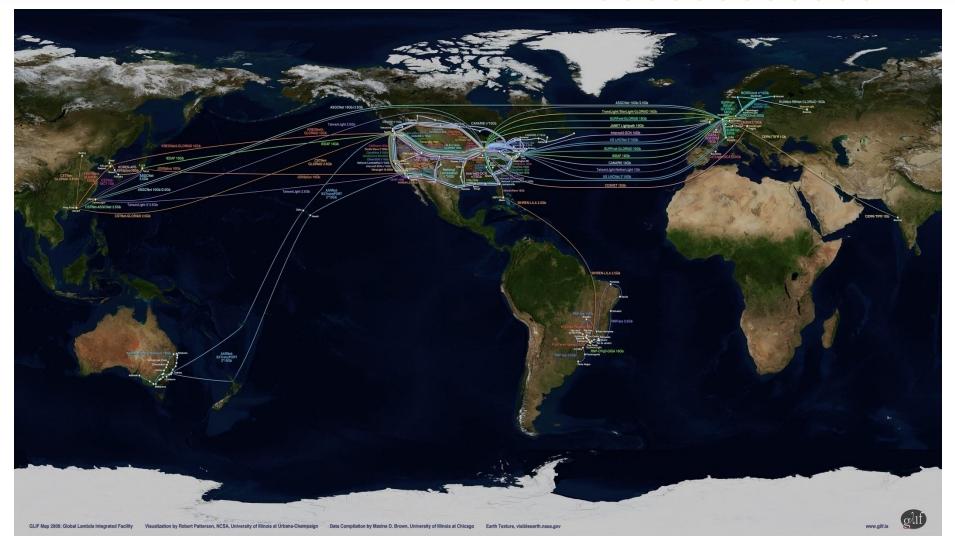
Design and Implement HPDMnet Persistence Network Research Infrastructure and Network Connectivity

- Programmable Network Working Group
 Plan and Design HPDMnet Programmable Network Capabilities
- Openflow Experiment Working Group
 Design and Implement Collaborative Openflow Research and Development Experiments(i.e: GLIF 2012 NE02, US07)
- High Definition Digital Media Experiment Working Group
 Design and Support 4K/8K Digital Media Collaborative
 Experiments(i.e: Participates GLIF 2012 CZ02)
- Demonstration And Out Reach Working Group
 Responsible for Demonstrations and New Member Out Reach





HPDMnet is a GLIF Participant, Global Lambda Integrated Facility



GLIF World-Scale Lambda-based Laboratory for Application and Middleware Development