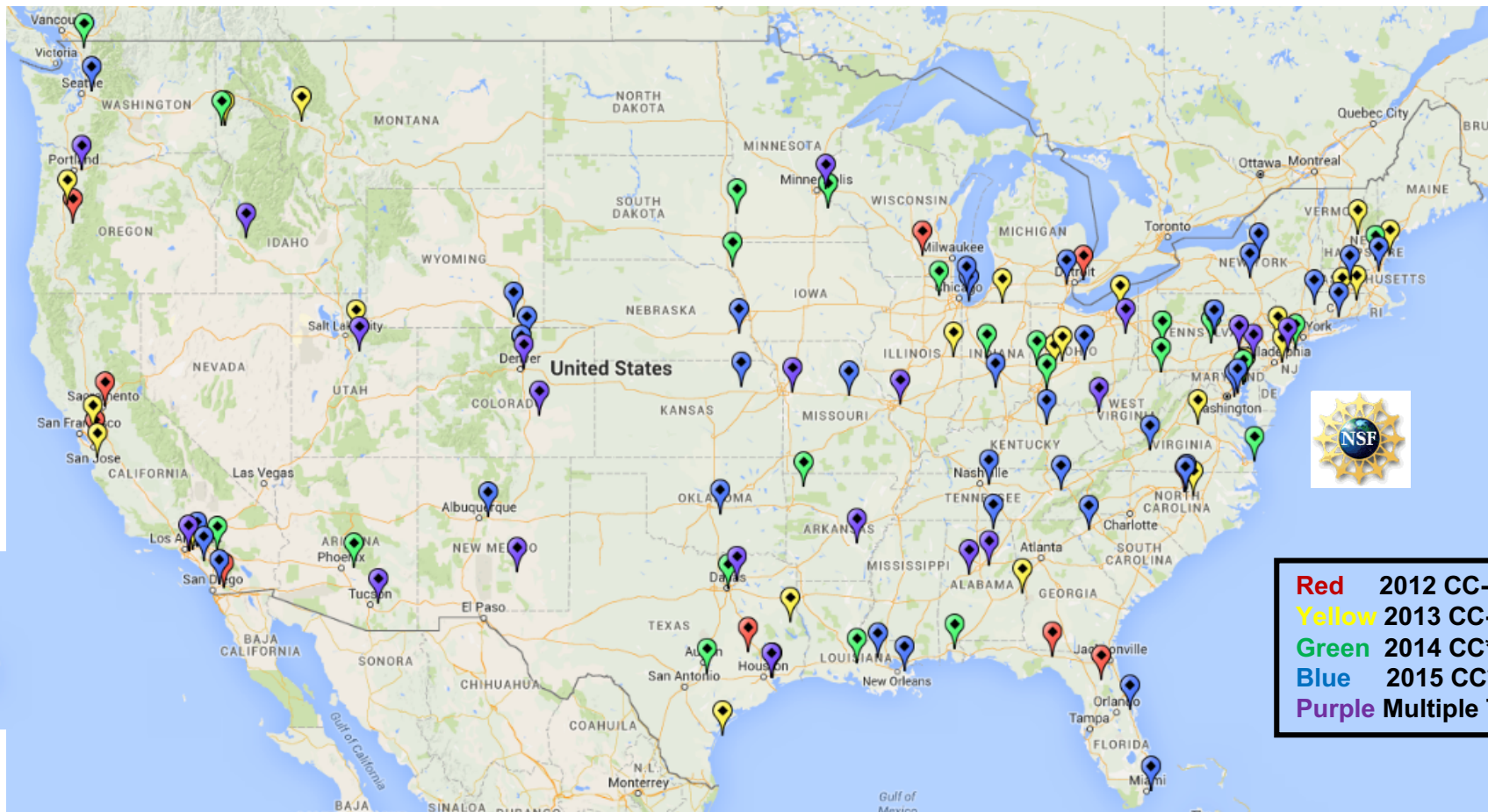# GLIF Tech Discussion

- **Designing/building networks *for* researchers**

  **vs**

- **Designing/building networks *with* researchers**

# Based on Community Input and on ESnet's Science DMZ Concept, NSF Has Funded Over 100 Campuses to Build Local Big Data Freeways
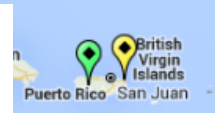


**Red** 2012 CC-NIE Awardees
**Yellow** 2013 CC-NIE Awardees
**Green** 2014 CC*IIE Awardees
**Blue** 2015 CC*DNI Awardees
**Purple** Multiple Time Awardees

2012-2015 CC-NIE / CC*IIE / CC*DNI PROGRAMS

Source: NSF

PRP
PACIFIC RESEARCH
PLATFORM

it²

# Logical Next Step: The Pacific Research Platform Creates a Regional End-to-End Science-Driven "Big Data Superhighway" System



Note: this diagram represents a subset of sites and connections. v1.16 – 20151019

Source: John Hess, CENIC

**NSF CC*DNI Grant
$5M 10/2015-10/2020**

PI: Larry Smarr, UC San Diego Calit2
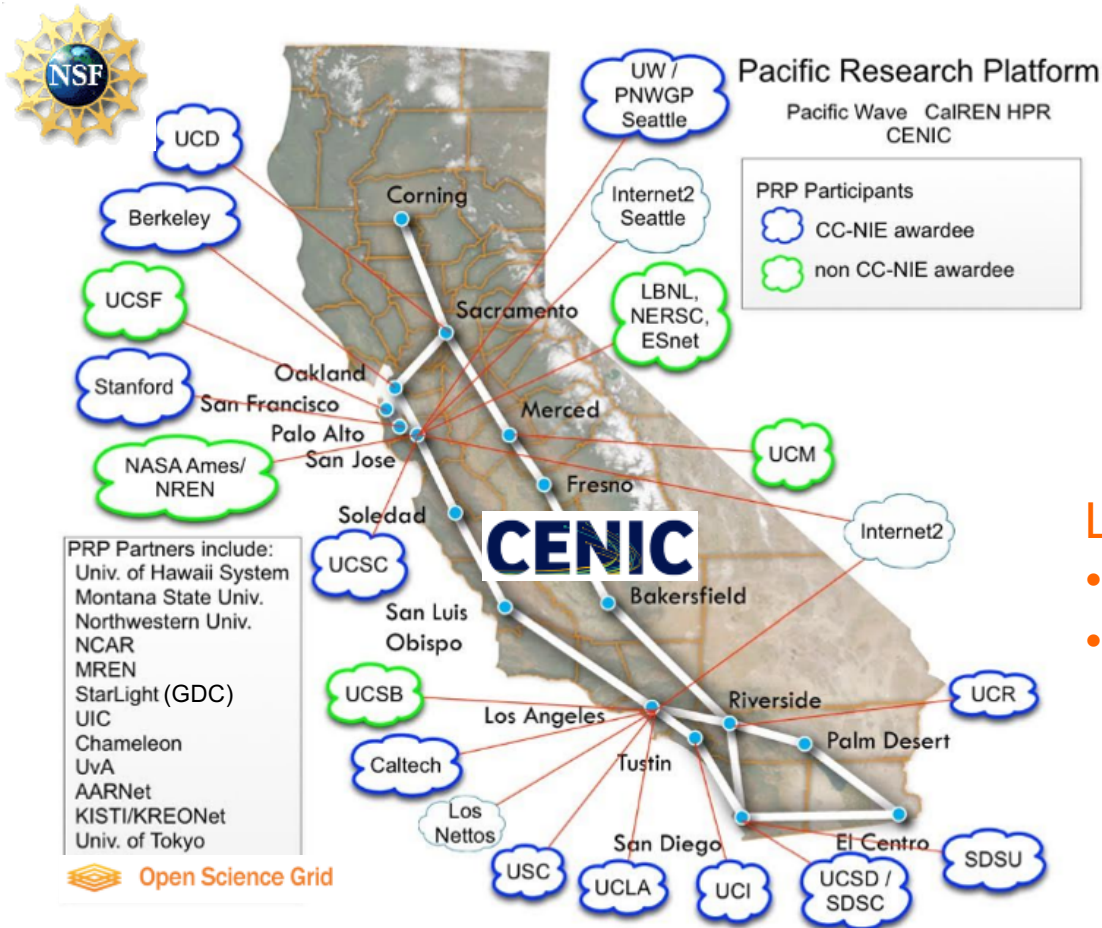Co-Pis:
- Camille Crittenden, UC Berkeley CITRIS,
- Tom DeFanti, UC San Diego Calit2,
- Philip Papadopoulos, UCSD SDSC,
- Frank Wuerthwein, UCSD Physics and SDSC

Letters of Commitment from:
- 50 Researchers from 15 Campuses
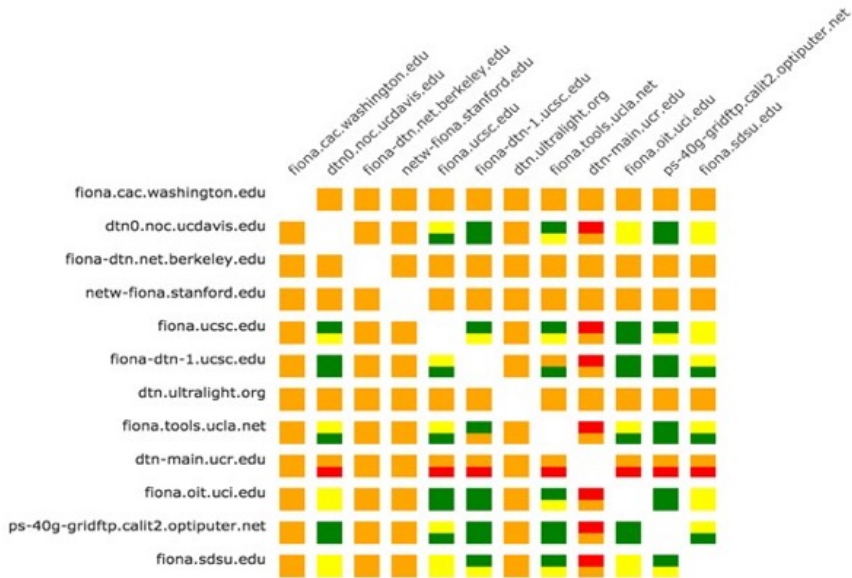- 32 IT/Network Organization Leaders

**See Deep Dive 3
on NSF Research CI**

# We Measure Disk-to-Disk Throughput with 10GB File Transfer 4 Times Per Day in Both Directions for All PRP Sites



Source: John Graham, Calit2