

NSF – IRNC PROGRAM

Quick Overview

John Silvester

Vice-Provost, University of Southern California
Chair, CENIC

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What Has Changed Since Ten Years Ago?

- NSF HPIIS Awards connect Europe, Asia 1999-2004
- Bandwidth increased from DS-3s to OC-192s
- The Grid emerged for distributed computing applications
- Lambdas became available at reduced prices
- 1GE and 10GE switching/routing became easy
- STAR TAP/StarLight funded by NSF for electronic and optical peering of international networks
- GLIF formed
- GLIF is building the LambdaGrid – lambda networks becoming a Grid resource, just like computers, data stores and instruments
- IRNC Awards announced 2005-2010

The National Science Foundation IRNC Program Purposes

- Fund international network links to connect U.S. and foreign science and engineering communities,
- Encourage the investigation and incorporation of advanced architectures needed to support the advanced and developing needs of science and engineering,
- Encourage rational development and leveraging of deployed infrastructure to meet current and anticipated needs and,
- Enable network engineers to engage in system and technology demonstrations and rigorous experimentation.
- Focus on measurement and security of links and demonstration of value to science community.
- Challenge for NSF was that during the proposal phase, the importance of GLIF and related activities (like HOPI) changed the playing field.

Award Summary

- **Transpac2** - Indiana University, P.I. Jim Williams
- **Translight/Starlight** - University of Illinois, Chicago, P.I. Tom deFanti
- **Gloriad** - University of Tennessee , P.I. Greg Cole
- **WHREN** - Western Hemisphere Research and Education Network - Florida International University, P.I. Julio Ibarra
- **Translight/PacificWave** - University of Southern California, P.I. John Silvester

Each at approx. \$1M per year for 5 years.

Also 1-2 measurement awards.