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## **GLIF Intro on Tech and Ctrl**

iGrid2005 San Diego, CA, USA September 30, 2005

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CP KI

GLIF Control Plane Chair: Gigi Karmous-Edwards(MCNC)

> GLIF Tech Co-chairs: René Hatem (CANARIE) Erik-Jan Bos (SURFnet)

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## History of GLIF Tech

- Lambda workshops, i.e. Pre-GLIF meetings, in Amsterdam, NL (Sep 2001 and Sep 2002)
- GLIF Tech #1: Reykjavik, IS Aug 2003
- GLIF Tech #2: Nottingham, UK Sep 2004
- GLIF Tech #3: Salt Lake City, UT, USA Feb 13, 2005
- GLIF Tech #4: San Diego, CA, USA Sep 30,2005
- Co-chairs as of Salt Lake:

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- René Hatem (CANARIE, Canada)
- Erik-Jan Bos (SURFnet, The Netherlands)



## **GLIF tech WG - mandate**

- To design and implement an integrated global lambda infrastructure
  - make it easier to for researchers to find and obtain end-end LightPaths
  - focus is on today's coordination difficulties that can be addressed now
  - provides a common ground for advancement

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## What's GLIF made up of?

- GLIF has participants, not members
- GLIF "glues" together the networks and resources of its participants
- Resources are owned by participants:
  - Lambdas

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– GLIF Optical Lightpath Exchanges (GOLEs)

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#### Global Lambda Integrated Facility World Map – August 2005



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### Lambda connections to NetherLight



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## **GLIF Tech and Ctrl challenges**

• Manually, now:

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- Smooth interworking on technical and human levels
- Automated, as far as we can get it; work to be done:
  - Automated Control Plane
  - Work with Grid community



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## **Terms and definitions**

- Lambda
- Lightpath
- GLIF Open Lightpath Exchange (GOLE)
- Provisioning:
  - Convergence on technology
  - NOC interaction
  - Fault management

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# GLIF WGs (here and now)

- Agenda:
  - Part 1 Joint Tech and Ctrl plane WG meeting
    - 1) common terms and "good enough" definitions
    - 2) GLIF resource update
    - 3) Resource repository approaches / solutions
    - 4) Seperation of mandate between Tech and Ctrl
  - Part 2 Tech WG meeting
    - 5) GLIF Open Lightpath Exchange (GOLE) coordination
    - 6) Fault Management in GLIF
    - 7) Policy and resource scheduling discussion
    - 8) Developments in Transcontinental Ethernet