











# **GENI**

Wait...there is more!

**USENIX NSDI** 2 April 2013

www.geni.net





- Instrumentation & measurement (I&M)
- Resources for educators using GENI
- Resources for GENI experimenters
- GENI Solicitation 4
- GENI Engineering Conferences



## Instrumentation and Measurement (I&M)

- Two major I&M systems being implemented
  - GEMINI (Indiana U. & U. of Kentucky)
  - GIMI (U. of Massachusetts, RENCI, NICTA)
- Support for active and passive measurements
- Repositories for archiving (and searching) for measurement data & meta-data being built



## Demo of the GEMINI I&M System

http://groups.geni.net/geni/wiki/GEC16Agenda/InstaGENI-GEMINI-Handson



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## On-Line Resources on the GENI Wiki

### http://groups.geni.net/geni/wiki/GENIEducation



#### This page is under construction and the content is being updated. For any comments please email → help@geni.net

The Global Environment for Network Innovations – **GENI** – is a suite of **research infrastructure** rapidly taking shape in prototype form across the United States. It is sponsored by the National Science Foundation, with the goal of providing a **laboratory environment** for **networking and distributed systems research and education**. It is well suited for exploring **networks at scale** thereby promoting innovations in network science, security, services and applications.



GENI is a networked federation of multiple testbeds that form a large-scale distributed testbed that you can use in a classroom or in tutorials to teach students networking and distributed system concepts. If you would like to give GENI a try and you don't have a GENI account. Sign Upl and go through our Hello GENI example.

#### **Getting Started**

If you want to either use GENI in your class, or you like to do a GENI tutorial you will have to first create a GENI project and then choose the material you want to present.

#### Resources for using GENI in the classroom

GENI is a federated virtual laboratory that provides access to multiple different testbeds to GENI experimenters, enabling networking and distributed systems research. GENI can also be used These are some useful pointers that will help you navigate through the GENI world. Feel free to email us with any questions you might have at help@geni.net.







Example Assignments

Resources for Instructors

Help using GENI for education

Download in other formats:

Plain Text



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## **Educator Resources**

- Sample exercises with instructor manuals
- Tips on setting up accounts for instructors, TAs and students
- List of instructors who have used/are using GENI in their classes
- Travel grants for instructors and TAs to attend the **GENI** conferences
  - Hands-on tutorials for beginner to advanced users
- Week-long summer camp
  - Next camp: June 2013
- Planned: Training classes for TAs in the late summer/ early Fall

help@geni.net

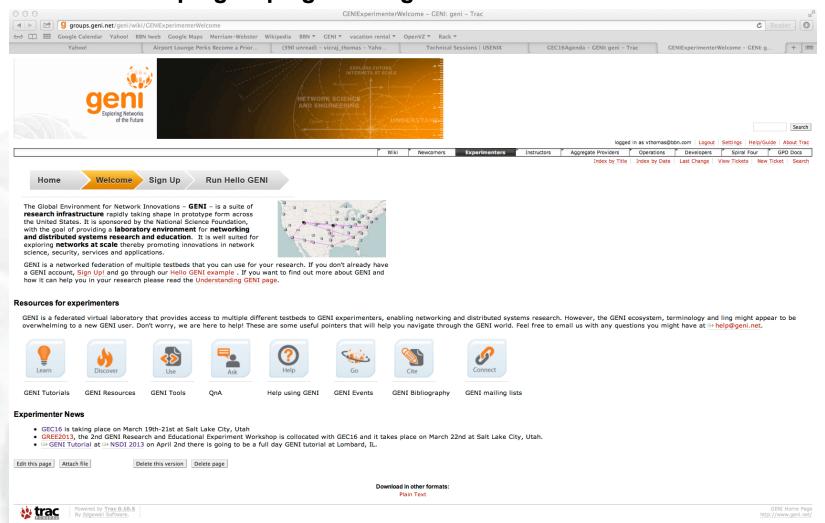


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- Mailing lists with active support from GENI experimenters and developers
- 24/7 help desk
  - Currently primarily for operations related questions
    - What is the status of the GENI Rack at Princeton?
    - Why am I unable to set up a vlan from Utah to Kentucky?
  - Soliciting proposals for an experimenter focused helpdesk
- Tutorials and workshops
  - At conferences including the GENI Engineering conferences
  - Summer camps



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## **GENI Solicitation Four**

- Experimenter Tools
  - Software tools for experimenters
  - 8 awards, \$50K-\$300K/year, 2 years
- Advanced Experiments, Services, Applications
  - Large-scale, IP or non-IP, opt-in users
  - 10 awards, \$50K-\$200K/year, 2 years
- Documentation and Training
  - For use by experimenters, educators and students
  - 5 awards, \$50K-\$100K/year, 2 years
- Operations Transition
  - Network operations, monitoring, incident response, archival services, help desk
  - 1 award, \$350K/year, 2 years
- Transitioning to a Self-Sustaining Community
  - 5 awards, \$50K-\$200K/year, 2 years

Proposals Due: 15 April 2013



## **GENI Engineering Conferences** We welcome your participation in GENI

- 17th meeting, open to all: 21-23 July 2013, University of Wisconsin
  - Planning & discussion for experimenters, software, infrastructure
  - Tutorials and workshops
  - Travel grants to US academics for participant diversity

