

UGREE-GENI: Understanding GENI InfRastructures for ComputEr Networking and Security Experiments

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UGREE-GENI

Acknowledgement

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- **We also thank the support from GENI development teams, Rochester Institute of Technology, Iowa State University, and University of Connecticut**

Goal, Objective, and Approach

- Goal: Understand GENI infrastructures and attract students, faculty, and scientists to use GENI for networking and security experiments
- Objective: Explore a project-based approach to understanding multiple GENI resources
- Approach: Offer a series of GENI activities such as summer/winter camps, workshops, and posters for undergraduate and graduate students, faculty, and researchers over a two-year period

Project Plan

Workshops

Locations

- The two workshops will be jointed with major conferences such as INFOCOM and ICDCS, or GENI GEC conferences, respectively.

Workshop committees and expected experimenter services

- **Workshop Committees:** BBN-GPO team, GENI Developers, and experienced GENI experimenters including faculty and scientists
- **Formats:** Keynote speeches, faculty/student experimenter paper presentations, tutorials, and panels/open discussions (subject to change)

Project Plan

Workshops (cont.)

Benefits to GENI community

- Keynote speeches
 - Give a recent **progress** and a future **direction** of the GENI resources from an **experimenter's** point of view
 - Inspires new comers to conduct GENI experiments in **future projects** and for GENI funding requests
- Workshop panel/open discussions
 - Provide a communication **channel** between GENI developers and experimenters
 - Current and future GENI experimenters will **benefit** from the guidance and GENI experience provided by the workshop panel consisting of GPO staff, GENI developers, and experienced experimenters

Project Plan

Workshops (cont.)

Benefits to GENI community

- Experimenter presentations
 - **Share** their GENI research/education experience
 - Other experimenters and potential experimenters will **benefit** from these experiences
 - GENI developers may **shape** their development plans by learning these experiences
- Tutorials
 - Have a better understanding of **latest** GENI resources and instrumentation tools

Partial travel support from BBN-GPO/NSF are available

Project Plan

Summer/winter Camps

Locations

- The first one-week summer/winter camp will be held at Rochester Institute of Technology in summer 2014 or in winter 2014 (location is to be determined)
- The second summer camp will be held at University of Connecticut in the summer of 2015

Summer/winter camp committees and expected experimenter services

- **Committees:** BBN-GPO team and GENI instructors
- **Campers:** 10 students and faculty with a majority of students
- **Formats:** Instructions including guest instructors' lectures, labs, team-based projects, and their project presentations (subject to change)
- **Methodologies:** Project-based approaches

Project Plan

Summer Camps (cont.)

Benefits to GENI community

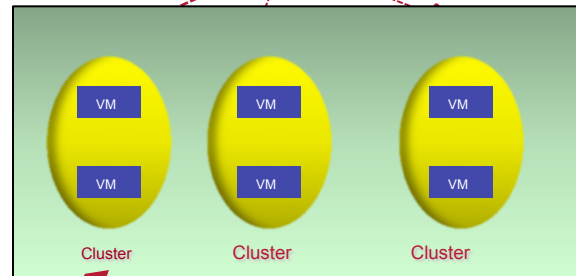
- Plan to select summer campers from a **diversity** of universities that help **promote** GENI in the different types of universities
- **Inspire** campers to use GENI for networking research and education at their home institutions, such as GENI experiments for their course projects, master thesis projects, and dissertations
- Provide **faculty campers** an opportunity of understanding GENI and using GENI in their teaching and research
- Pre- and post evaluation will help GENI instructors and researchers to **enhance** their teaching and research approaches, and GENI developers to shape their development plans

Travel support and stipend from BBN-GPO/NSF are available

Goal and Challenges

Goal:

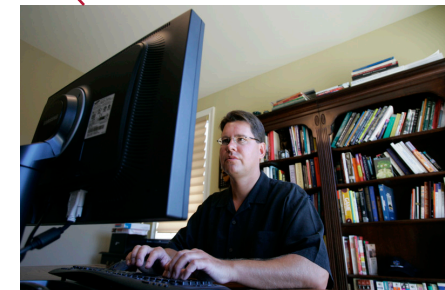
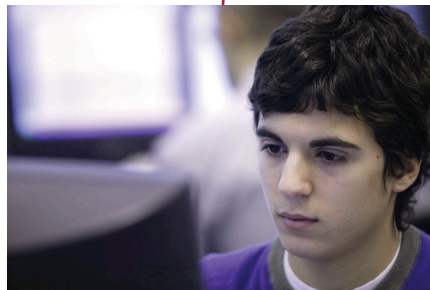
Promote GENI and help people to understand the GENI resources for their research and education



GENI Testbeds

Challenges:

1. Multiple users
2. Limited resources
3. Limited budget
4. Scalability of networks
5. Real-world networks
6. Testbed management



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Summary

- Promote **GENI** and help people to have a better understanding of GENI resources for research and education
- Provide a **communication** channel between GENI developers and GENI users/experimenters for the improvement of GENI developments and their GENI experiments
- **Freely** share the project materials with GENI users for education and research

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Thank you

Questions, Suggestions, and Comments?