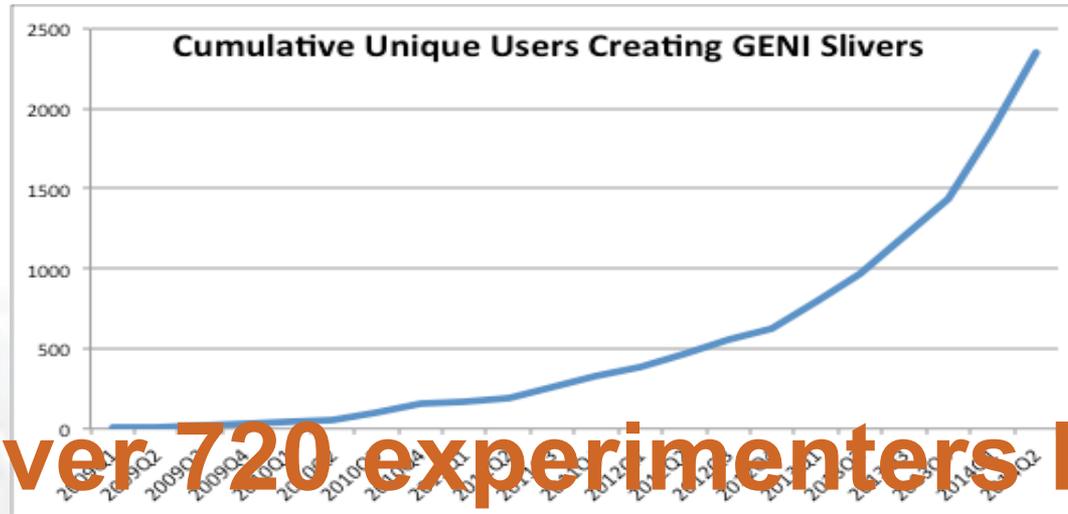


GENI Experimentation Update

An Update

GENI Engineering Conference 20

Vicraj Thomas
23 June 2014
GENI Project Office

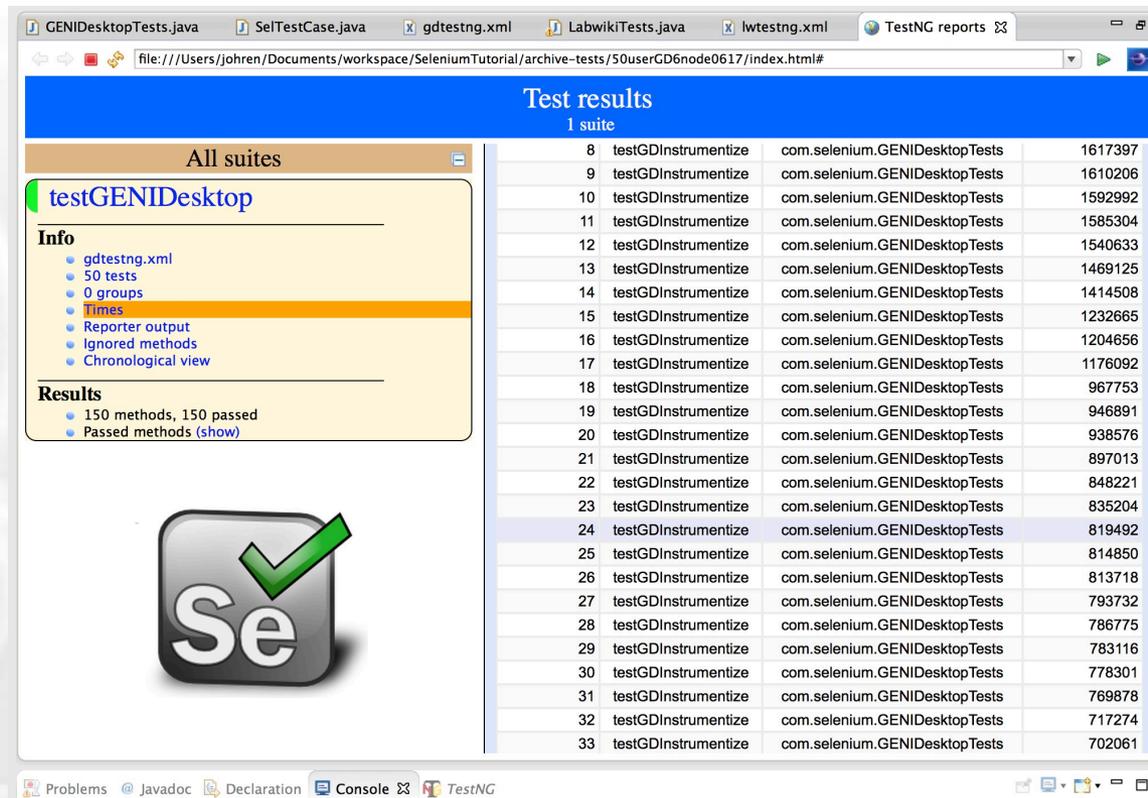


Over 720 experimenters have created more than 190,000 slivers in the last quarter



Improvements to tools and services to handle:

- Growth in number of users
- Growth in number of resources

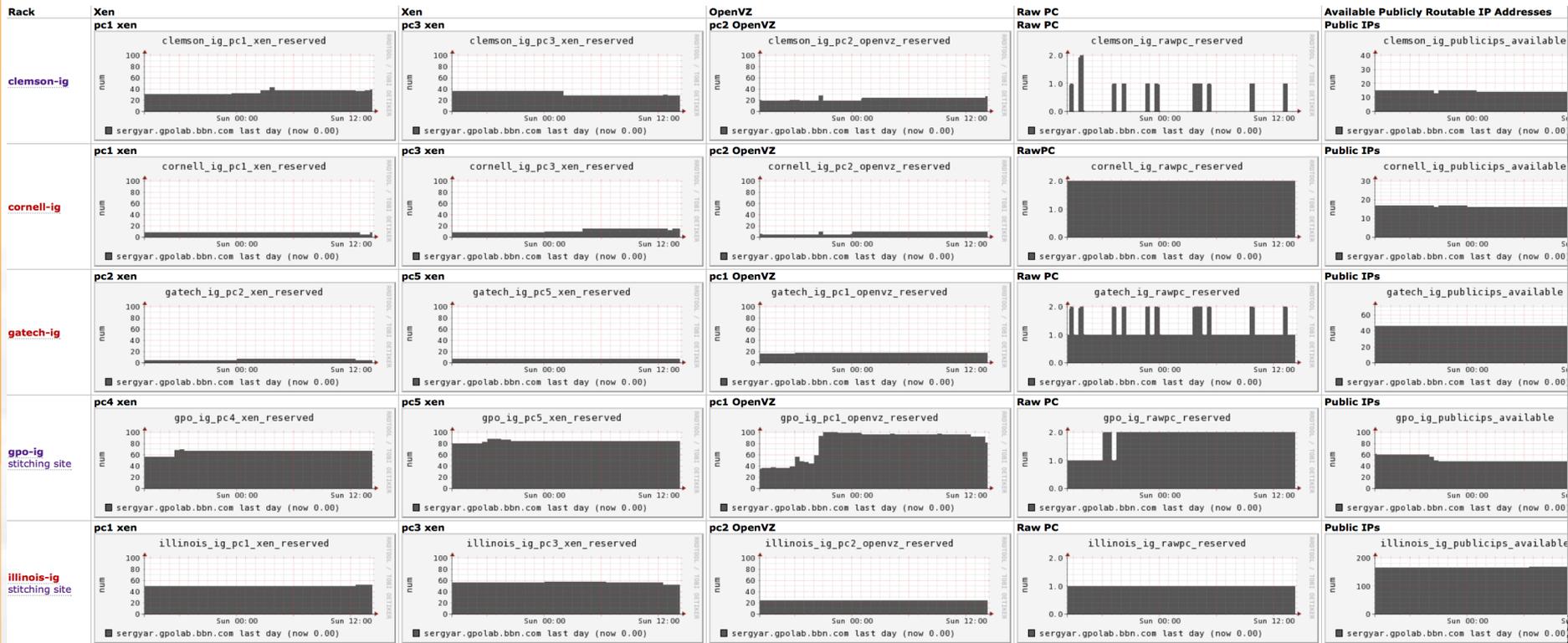
The screenshot shows a web browser displaying TestNG test results. The browser tabs include GENIDesktopTests.java, SelTestCase.java, gdtestng.xml, LabwikiTests.java, lwtestng.xml, and TestNG reports. The address bar shows the file path: file:///Users/johren/Documents/workspace/SeleniumTutorial/archive-tests/50UserGD6node0617/index.html#.

The main content area is titled "Test results" and shows "1 suite". On the left, there is a sidebar with "All suites" containing "testGENIDesktop". Under "Info", it lists: gdtestng.xml, 50 tests, 0 groups, Times (highlighted), Reporter output, Ignored methods, and Chronological view. Under "Results", it shows: 150 methods, 150 passed, and Passed methods (show). Below the sidebar is a Selenium logo with a green checkmark.

The main table lists 33 test cases, all of which passed. The table has the following columns: Line Number, Test Name, Package Name, and Duration.

Line	Test Name	Package Name	Duration
8	testGDInstrumentize	com.selenium.GENIDesktopTests	1617397
9	testGDInstrumentize	com.selenium.GENIDesktopTests	1610206
10	testGDInstrumentize	com.selenium.GENIDesktopTests	1592992
11	testGDInstrumentize	com.selenium.GENIDesktopTests	1585304
12	testGDInstrumentize	com.selenium.GENIDesktopTests	1540633
13	testGDInstrumentize	com.selenium.GENIDesktopTests	1469125
14	testGDInstrumentize	com.selenium.GENIDesktopTests	1414508
15	testGDInstrumentize	com.selenium.GENIDesktopTests	1232665
16	testGDInstrumentize	com.selenium.GENIDesktopTests	1204656
17	testGDInstrumentize	com.selenium.GENIDesktopTests	1176092
18	testGDInstrumentize	com.selenium.GENIDesktopTests	967753
19	testGDInstrumentize	com.selenium.GENIDesktopTests	946891
20	testGDInstrumentize	com.selenium.GENIDesktopTests	938576
21	testGDInstrumentize	com.selenium.GENIDesktopTests	897013
22	testGDInstrumentize	com.selenium.GENIDesktopTests	848221
23	testGDInstrumentize	com.selenium.GENIDesktopTests	835204
24	testGDInstrumentize	com.selenium.GENIDesktopTests	819492
25	testGDInstrumentize	com.selenium.GENIDesktopTests	814850
26	testGDInstrumentize	com.selenium.GENIDesktopTests	813718
27	testGDInstrumentize	com.selenium.GENIDesktopTests	793732
28	testGDInstrumentize	com.selenium.GENIDesktopTests	786775
29	testGDInstrumentize	com.selenium.GENIDesktopTests	783116
30	testGDInstrumentize	com.selenium.GENIDesktopTests	778301
31	testGDInstrumentize	com.selenium.GENIDesktopTests	769878
32	testGDInstrumentize	com.selenium.GENIDesktopTests	717274
33	testGDInstrumentize	com.selenium.GENIDesktopTests	702061

Thanks to the GEMINI & GIMI teams and Jeanne Ohren!



<http://groups.geni.net/geni/wiki/ExpGraphs>

Thanks to Nick Bastin and Sarah Edwards!

Managing Resources in the Portal

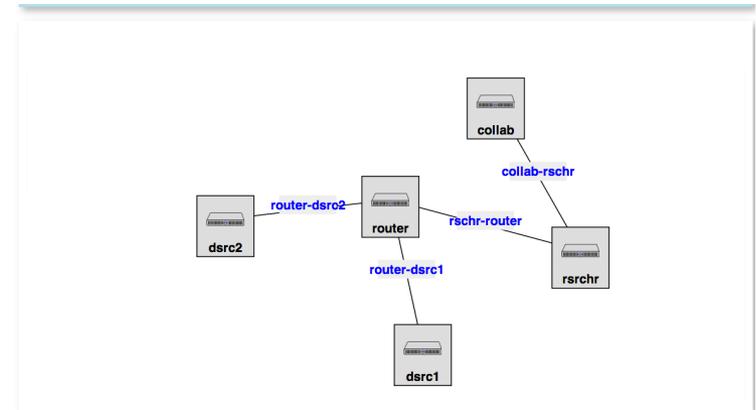
Manage Resources

Select Only:

<ul style="list-style-type: none"> + <input checked="" type="checkbox"/> ExoGENI (5) + <input type="checkbox"/> FOAM (0) + <input checked="" type="checkbox"/> InstaGENI (20) + <input type="checkbox"/> Other (0) 	<p>Clemson InstaGENI</p> <p>READY</p> <p>Cornell InstaGENI</p> <p>Status not retrieved</p> <p>ExoGENI ExoSM</p> <p>Status not retrieved</p> <p>FIU ExoGENI</p> <p>Status not retrieved</p> <p>GPO ExoGENI</p> <p>Status not retrieved</p> <p>GPO InstaGENI</p> <p>Status not retrieved</p> <p>Georgia Tech InstaGENI</p> <p>Status not retrieved</p> <p>Illinois InstaGENI</p> <p>Status not retrieved</p>
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Multiple ways of filtering the list of aggregates displayed.

Initial integration of Jacks into the Portal:
Experiment network topology shown
along with sliver status



[Show Raw Resource Specification](#)

[Back to All slices](#)

[Back to Slice lab1vt5](#)

Tools

[GENI Desktop](#)

[LabWiki](#)

[WiMAX](#)

GENI Messages

- 2014-06-23 00:25:53 Z Deleted resources from slice tut-of16 at Wisconsin InstaGENI
- 2014-06-22 22:38:43 Z Added resources to slice tut-of16 at Wisconsin InstaGENI
- 2014-06-22 22:35:57 Z Created slice tut-of16

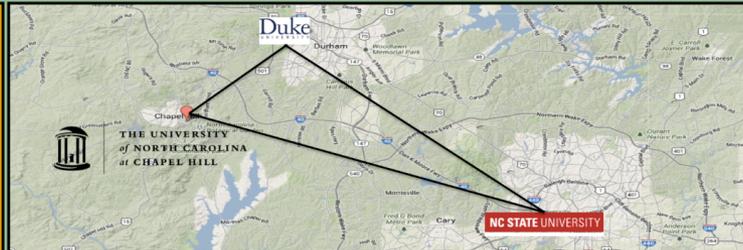
[Invite Someone to GENI](#)

GENI Portal Version 2.16.7
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Access WiMAX resources
from the GENI Portal



The 22nd IEEE International Conference on Network Protocols



October 21-24, 2014

The Research Triangle, North Carolina

- **Full-day tutorial [Friday August 22]**
- **Emphasis on GENI for novel networking architectures**
 - **Hands-on tutorials on XIA and NDN on GENI**
 - XIA tutorial by Peter Steenkiste
 - **Wireless research on GENI**
 - Demo of MobilityFirst by Ivan Seskar
 - **Hands-on tutorial on using GENI OF resources**

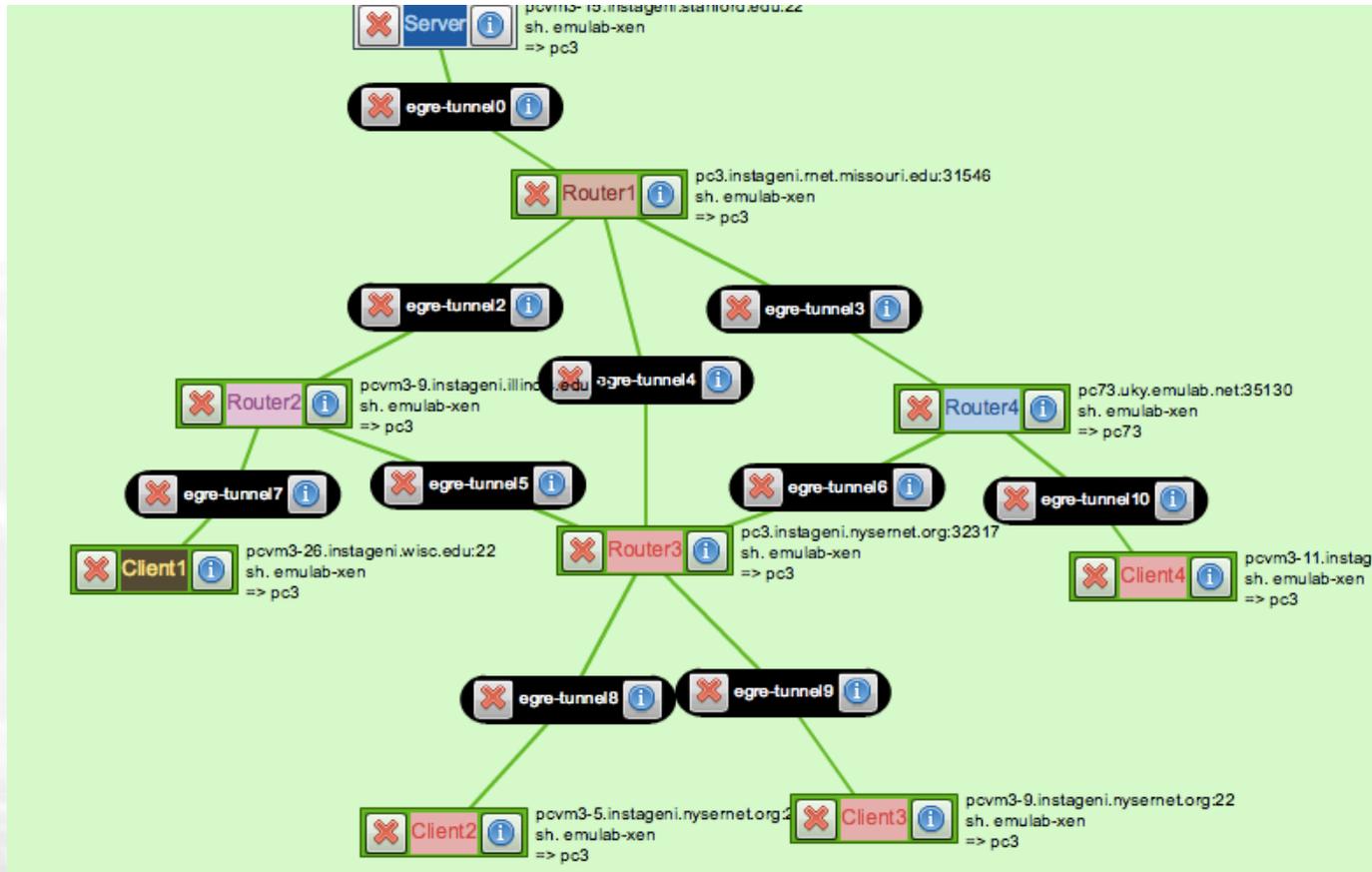
- **Workshop on Computer and Networking Experimental Research using Testbeds (CNERT)**
[Friday October 24]
- **Evolution of the GREE Workshop**
 - Held at venue other than a GEC
 - Includes testbeds other than GENI
- **Important dates:**
 - Abstracts: 6 July 2014
 - Full papers: 10 July 2014
- **We hope to see many GENI papers**



Thanks to: Kaiqi Xiong, Yong Guan, Yin Pan and Bing Wang

- **Fed4FIRE-GENI Research Experiment Summit (FGRE 2014) [July 7-11, Ghent, Belgium]**
 - Lead organizers: Brecht Vermeulen, Kaiqi Xiong
 - Objective: Encourage EU-US collaborative research using FIRE and GENI resources
 - Format: Similar to GREE camps
 - Tutorials, group projects
- **GREE Summer Camp [Aug 21-25, Ames, IA]**
 - Host: Yong Guan
 - Theme: Custom routing protocols

- **At least 15 classes used GENI in Spring'14**
- **New course modules ready by Fall'14**
 - GENI in Education session after break
- **GENI MOOC coming in Fall'14**
 - Adaptive video streaming
 - Net neutrality
 - Bitcoin: Reaching consensus in distributed systems
- **Train-the-TA early Fall**



“I set up this experiment but it does not work. Please help!”

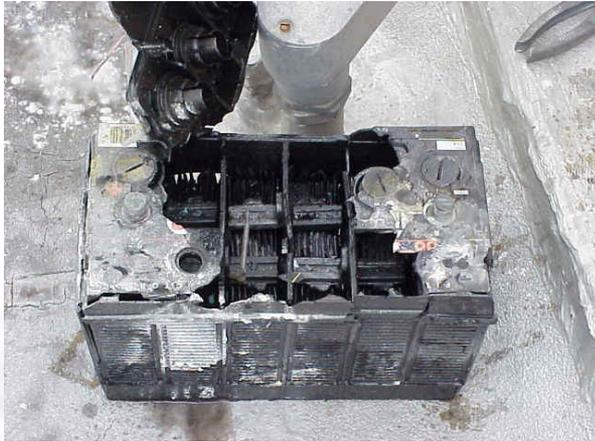
GEC20: Systematic Experimentation

Newcomers & Travel Grantees Day (Sat Jun 21)		General Sessions 1 (Sun Jun 22)				General Sessions 2 (Mon Jun 23)				General Sessions 3 (Tue Jun 24)	
Conference Center	Conf Ctr - Conf A	Conf Ctr - Conf B	Alumni Ctr - AGR Hall	Alumni Ctr - Founders Rm	Conf Ctr - Ball A	Conf Ctr - Ball B	Conf Ctr - Ball C	Alumni Ctr - AGR Hall	Conference Center - Ballrooms A, B		
			Architects Meeting (by invitation only) (8.30am - 9.30am)	Breakfast (7.30am - 8.30am) Alumni Center - Patio	Breakfast (7:30am - 8.30am) Alumni Center - Patio & Founders Rm				Breakfast / Newcomers Breakfast (7.30am - 8.30am) Alumni Center - Patio & Founders Rm		
			GENI Overview (8am - 9.15am)		Plenary (8.30am-11am) Conference Center - Ballrooms A, B, C				Upcoming Experimenter Tools (8.30am - 9.30am)		
			Demo Talks (9.30am - 10am)		Break (10am - 10.30am)				Break (9.30am - 10am)		
Registration (starts at 11am) + Lunch (11.30am - 12.30pm)	Tutorial: WiMAX/WiFi Handoff using OpenFlow (10.30am - 12.30pm)	Developer Topics (10.30am - 12.30pm)	Tutorial: Experiment Orchestration & Instr w/ LabWiki (Part 1)* (10.30am-12.30pm)	Calibrating Experiments on GENI using TMix (10.30am - 12.30pm)	Break (11am - 11.30am)				Intro to the GENI Architecture (10am - 11am) Wrap-Up Plenary (11am - 11.15am)		
An Introduction to GENI and Experimentation using GENI (12.30pm - 1.45pm) Conf Ctr - Ballroom B	Lunch (12:30pm - 1.30pm) Alumni Center - Patio & Founders Rm				Experimenter / Developer roundtable (11:30am - 12:30am)	InstaGENI Rack Administration (11.30am - 12.30pm)	ExoGENI Rack Administration (11.30am - 12.30am)	GENI in Education (11.30am - 12.30pm)	Developer Roundtable (11.30am - 1pm w/ break for boxed lunch) Ball A, B		
Walk to tutorial building (1.45pm - 2pm)	Lunch (12.30pm - 1.30pm) Alumni Center - Patio & Founders Rm				Lunch (12.30pm - 1.30pm) Alumni Center - Patio & Founders Rm				Experimenter Drop-In (11.30am - 1pm w/ break for boxed lunch) Ball A, B		
Tutorial: Getting Started with GENI - Part 1 (2pm - 3.30pm) Conf Ctr - Conf A	Tutorial: Inter-Aggregate Experiments (1.30pm - 3pm)	Tutorial: Intro to OpenFlow & controller-writing (1.30pm-3pm) (repeated at 3.30pm)	Tutorial: Experiment Orchestration & Instr w/ LabWiki (Part 2)* (1.30pm - 3pm)		Tutorial: GENI Desktop (1.30pm - 3.30pm)	Tutorial: Systematic Experimentation in GENI (1.30pm - 3.30pm)	GENI Operations (1.30pm - 3.30pm)	WiMAX Developers Meeting (1.30pm - 3.30pm)			
Tutorial: Getting Started with GENI - Part 2 (4pm - 5.30pm) Conf A	Break (3pm - 3.30pm)				Break (3.30pm - 4pm)						
Tutorial: Getting Started with GENI - Part 2 (4pm - 5.30pm) Conf B	Educator & Experimenter Drop-in (3.30pm - 5pm)	Tutorial: Intro to OpenFlow & controller-writing (3.30pm - 5pm) (repeat of 1.30pm)	Optical Software Defined Networking (3.30pm - 5pm)	Tutorial: Train the Admin (3.30pm - 5pm)	I&M Developers Meeting (4pm - 5.30pm)	Experimenter Drop-in (specialized topics) (4pm - 5.30pm)	Open Code for Developers (4pm - 5.30pm)	Tutorial: Intro to GENI WiMAX (4pm - 5.30pm)			
Break (3:30pm-4pm)	Adjourn 5pm				Adjourn 5.30pm						
BoF Dinners for Travel Grantees and Newcomers	Evening Demo Session & Networking Event (5.30pm - 7.30pm) Conference Center - Ballrooms A, B, C				BoF Dinners. Please join one of the birds-of-a-feather dinners listed in the agenda below.						

Legend

- General interest
- Experimenter targeted
- Developer targeted
- Experimenter and developer targeted
- Campus IT/Rack administrator targeted
- Recommended for newcomers
- Hands-on Tutorial; Bring a laptop if you want to do the hands-on exercises
- * Session topics relate to theme "Systematic Experimentation"

The Great Disasters of GEC20



Exploding UPS batteries – U. of Wisconsin

Laptop soaked by hotel sprinkler – Nick Bastin



Dead car battery: calling AAA
– Wayne State U



Flooded datacenter
due to burst water
pipe - NYU

THANK YOU!