

# GENI Update and Future Planning Process

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March 8, 2016



# Welcome to Tempe!



Thank you to:

- Our hosts: Violet Syrotiuk and ASU.
- Our sponsors, Ciena and Matrix Integration.
- All of today's speakers, demo teams, and panelists.

# Speakers This Session



**Sandeep Gupta**  
ASU



**Nancy Forbes**  
NITRD NCO

**Chip Elliott**  
BBN



**Jim Kurose**  
NSF



# Welcome



**Sandeep Gupta**  
ASU

# GENI's Future: Taking the Long View



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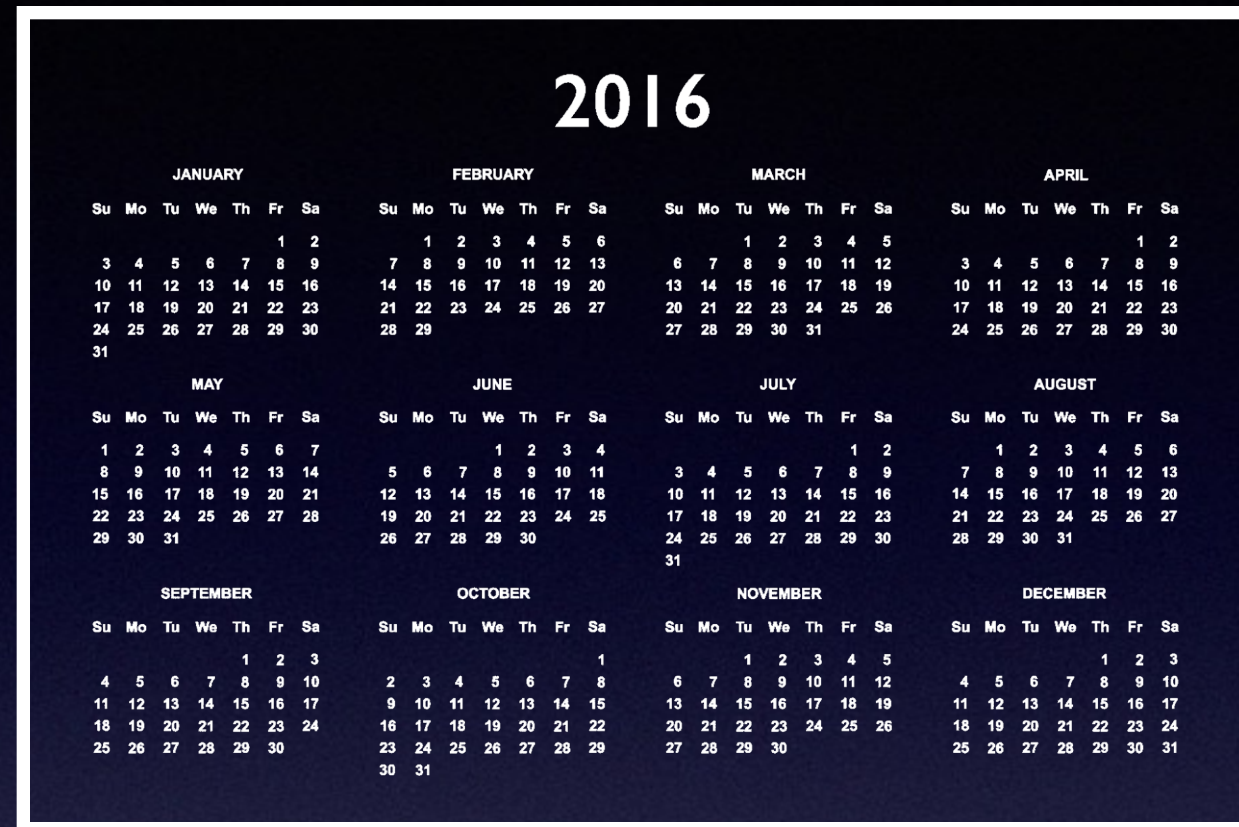


# GENI's Future: Taking the Long View



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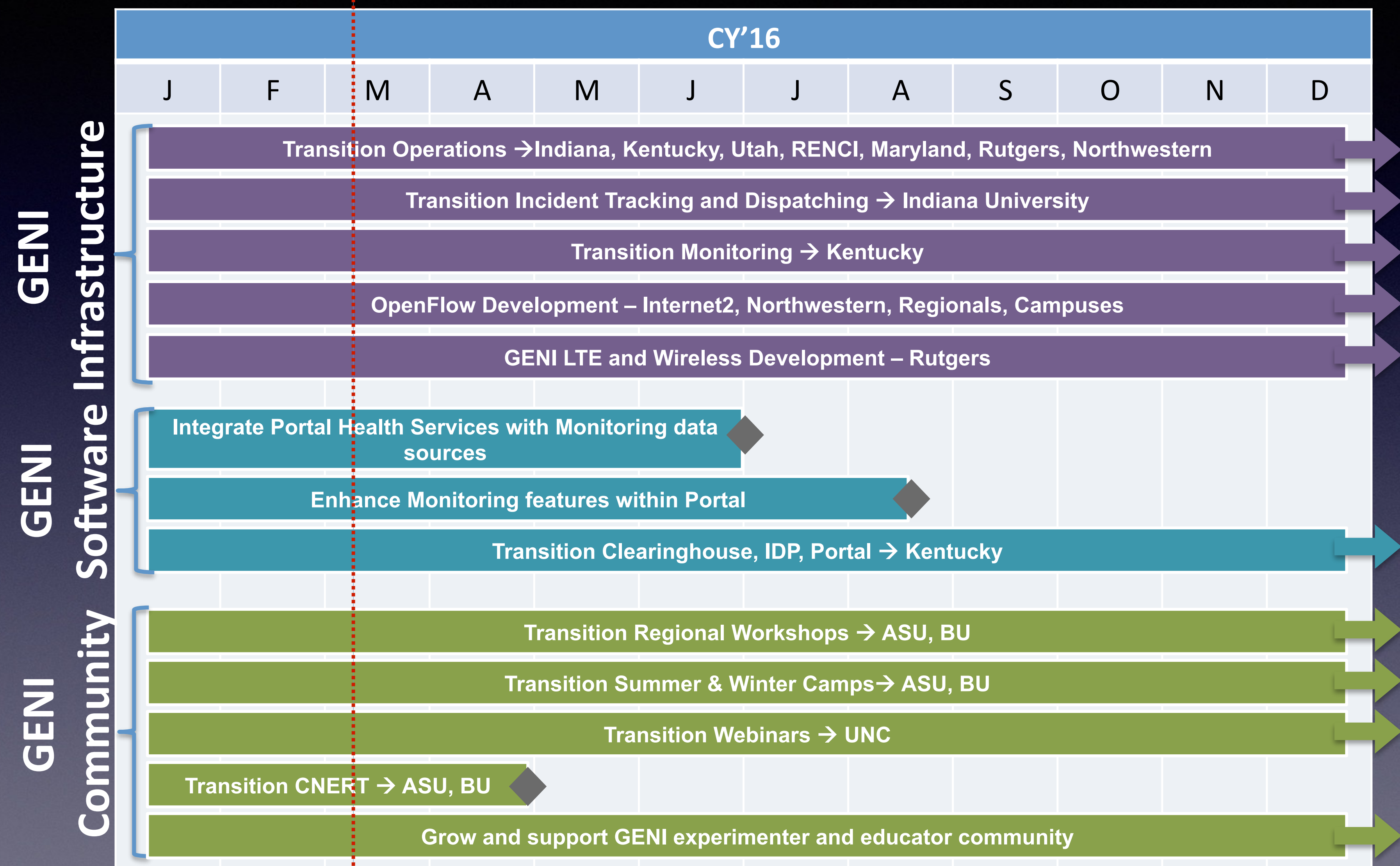
## 2016 and 2017



- Ongoing research and development
- Operations and community engagement activities migrate from GPO to GENI community teams
- GPO continues in management role
- Explore, define, and implement transition to new oversight structure

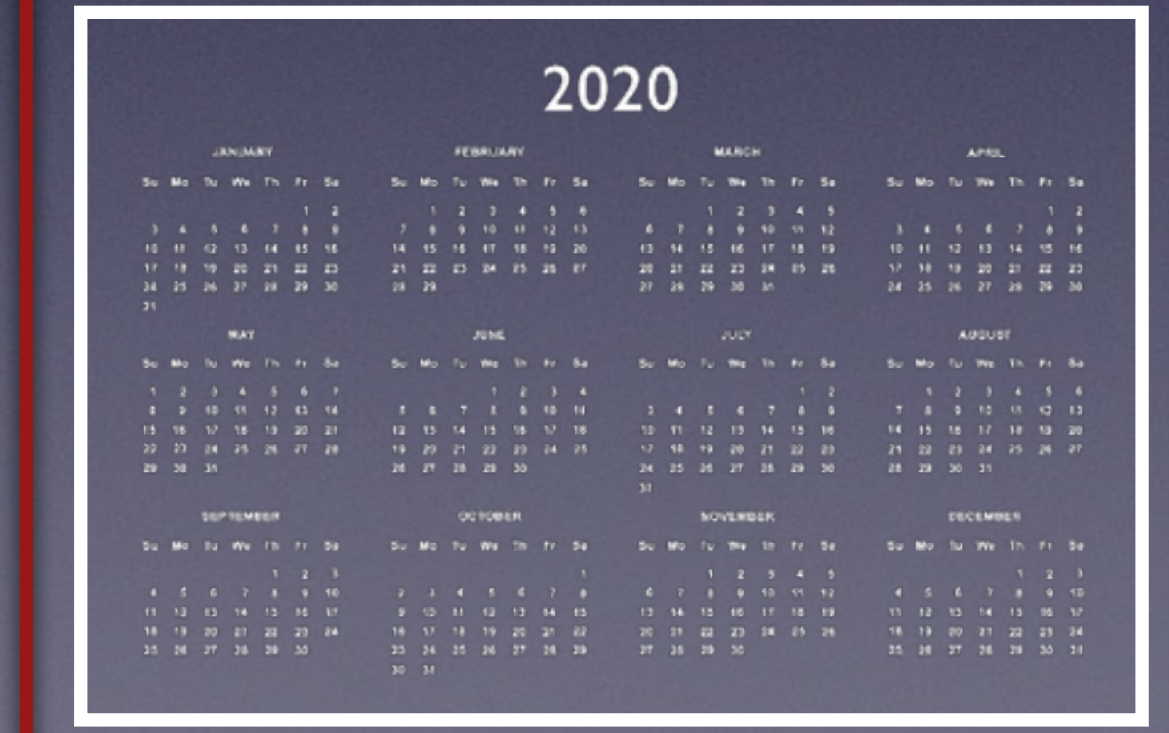
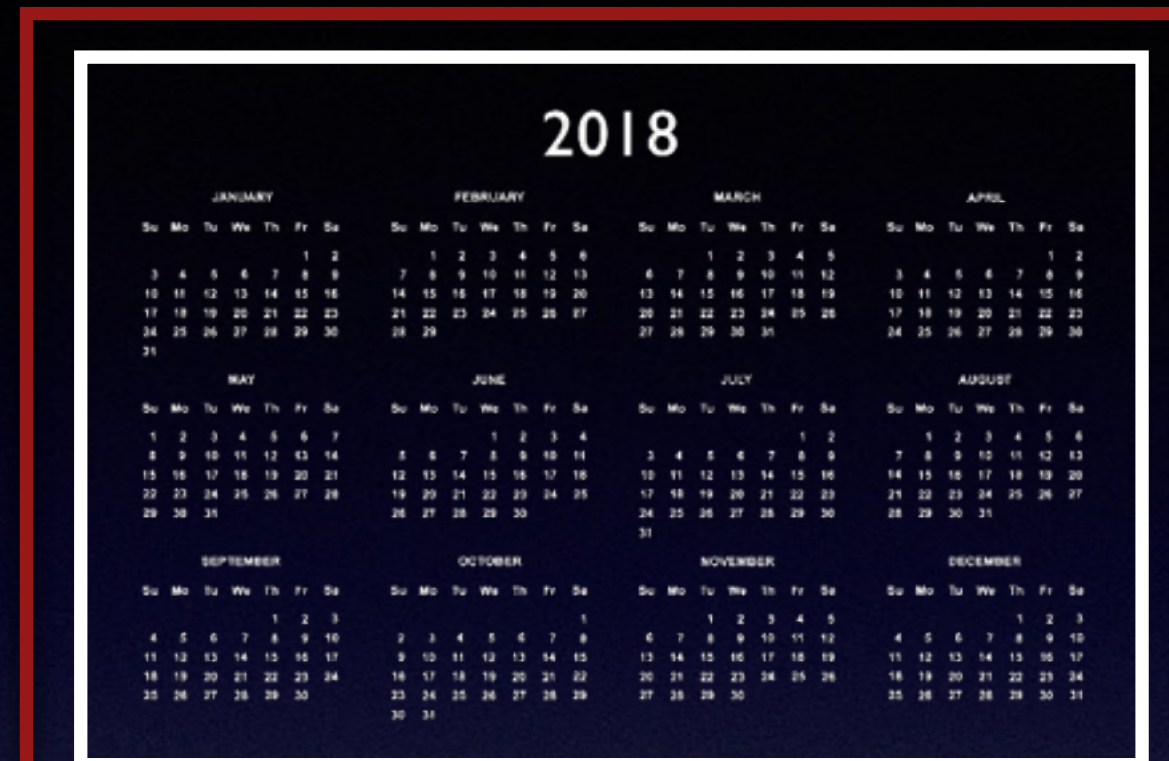
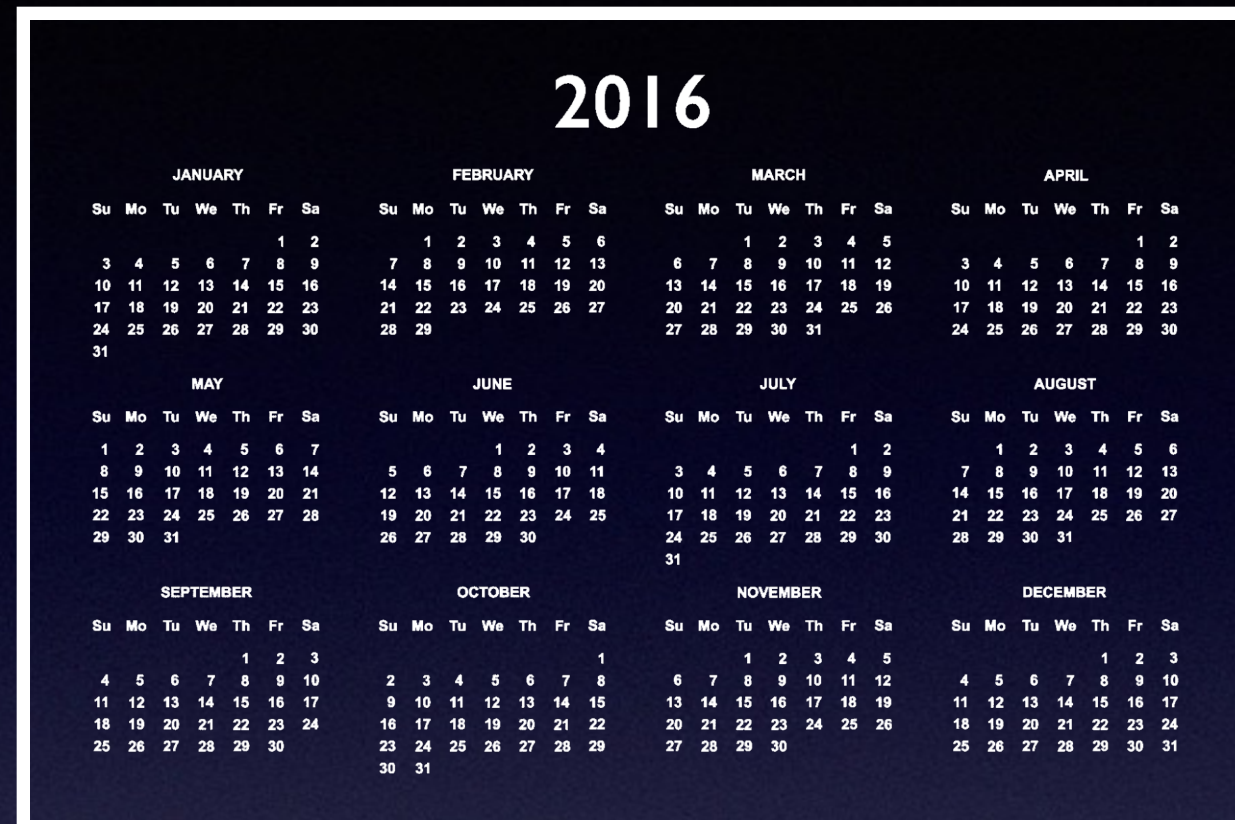
Focus on 2016 operations and engagement migration in transition session at 11:30.

# Near-Term Transition Timeline





# GENI's Future: Taking the Long View



## GENI 2018++

- GENI operations continue with support from NSF and others
- New oversight structure
- GENI technology prominent in new cyberinfrastructure programs

Discuss at long-term planning session, 3:30pm today.

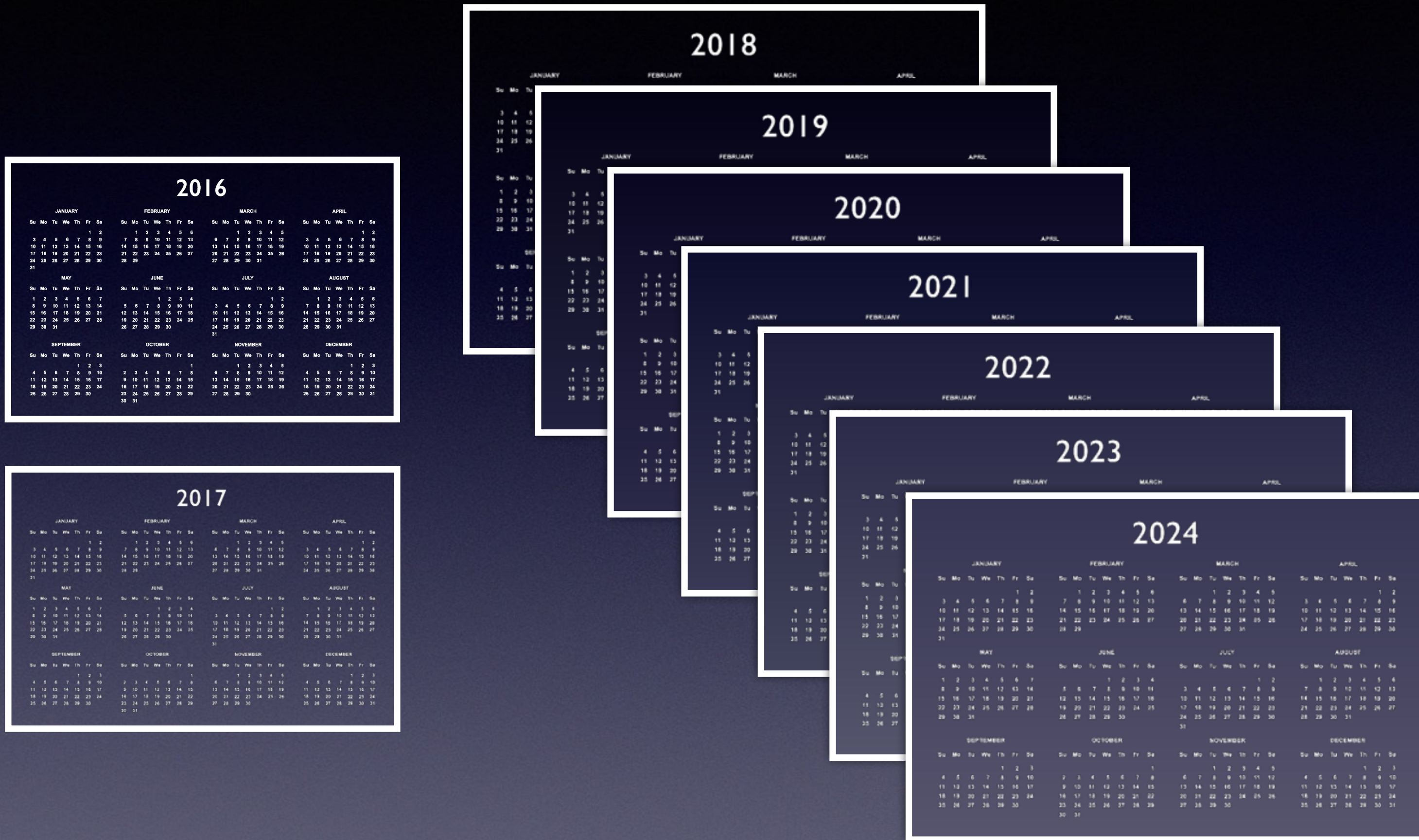


# GENI's Future: Taking the Long View

“Looking Beyond the Internet”

- Current research trends, along with key GENI concepts are enabling new thrusts in research cyberinfrastructure.

Chip Elliott will give a brief update in a few minutes.



# Changes to GENI Community Events



March 8, 2016



# Changes to GENI Community Events

## GENI Engineering Conferences have become overloaded

### Learning GENI

- Hands-on tutorials and intro

### Using GENI

- Research & education exchange
- Demos & posters

### Building & improving GENI

- Collaborative design

# Changes to GENI Community Events

## Regional Workshops (3-4 per year)



## GENI Engineering Conferences



### Learning GENI

- Hands-on tutorials and intro
- Baltimore & Chicago 2015
- Tempe, March 7, 2016, exceeded our cap of 80 participants
- Want to host a workshop? Write to [help@geni.net](mailto:help@geni.net) or ...

### Using GENI

- Research & education exchange
- Demos & posters

### Building & improving GENI

- Collaborative design
- Demos & posters
- GEC24, March 8-9, Tempe AZ



Ibrahim Matta (BU) and  
Violet Syrotiuk (ASU)  
lead regional workshop team

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# Upcoming events



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# GENI Tutorials

Jay Aikat (UNC) presents GENI-based course modules at SIGCSE, March 4



Tutorial at 2016 Wireless @ Virginia Tech Symposium and Summer School  
• June 1-3, 2016



Photo courtesy Maureen Doyle,  
Northern Kentucky University

Interested in leading a GENI tutorial? Speak to the GPO.

# CNERT 2016

**The International Workshop on Computer and Networking Experimental Research Using Testbeds**



**In Conjunction with IEEE INFOCOM, April 10-15, 2016**

**APRIL 11, 2016 | San Francisco, CA, USA**

The third CNERT workshop

- April 11, 2016, San Francisco, in conjunction with INFOCOM
- Successor to GREE workshop series



# ITC 28 Demo Session



ITC 28 in Würzburg  
12. - 16. September 2016

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ITC 28 in Würzburg is including a new demo paper session

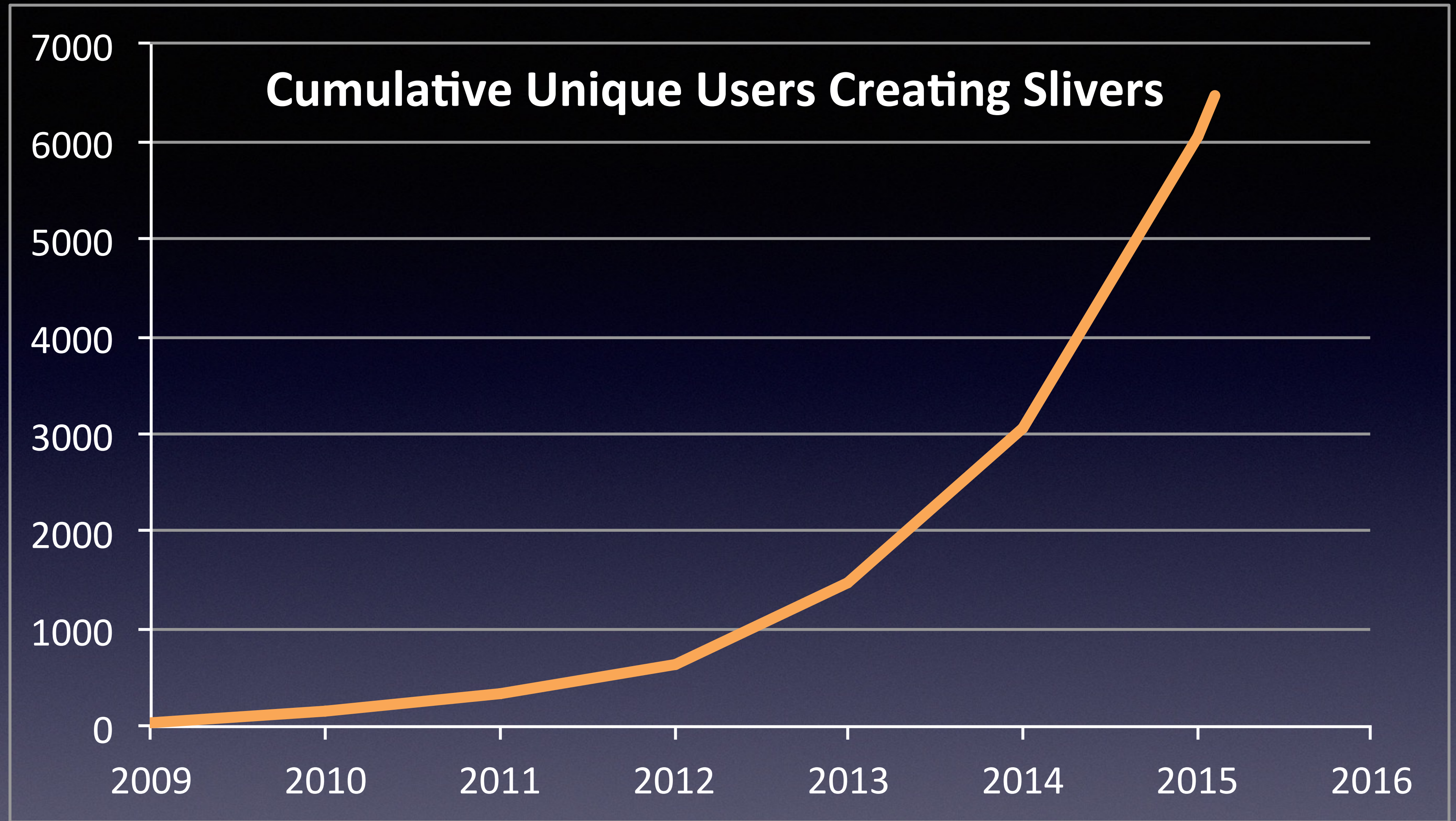
- Not a GENI event, but an opportunity for demo-based presentation of networking research
- Paper registration deadline: March 11 (Friday!)

# GENI Usage Update



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GENI is supporting over 6500 researchers, educators, and students and their experiments.



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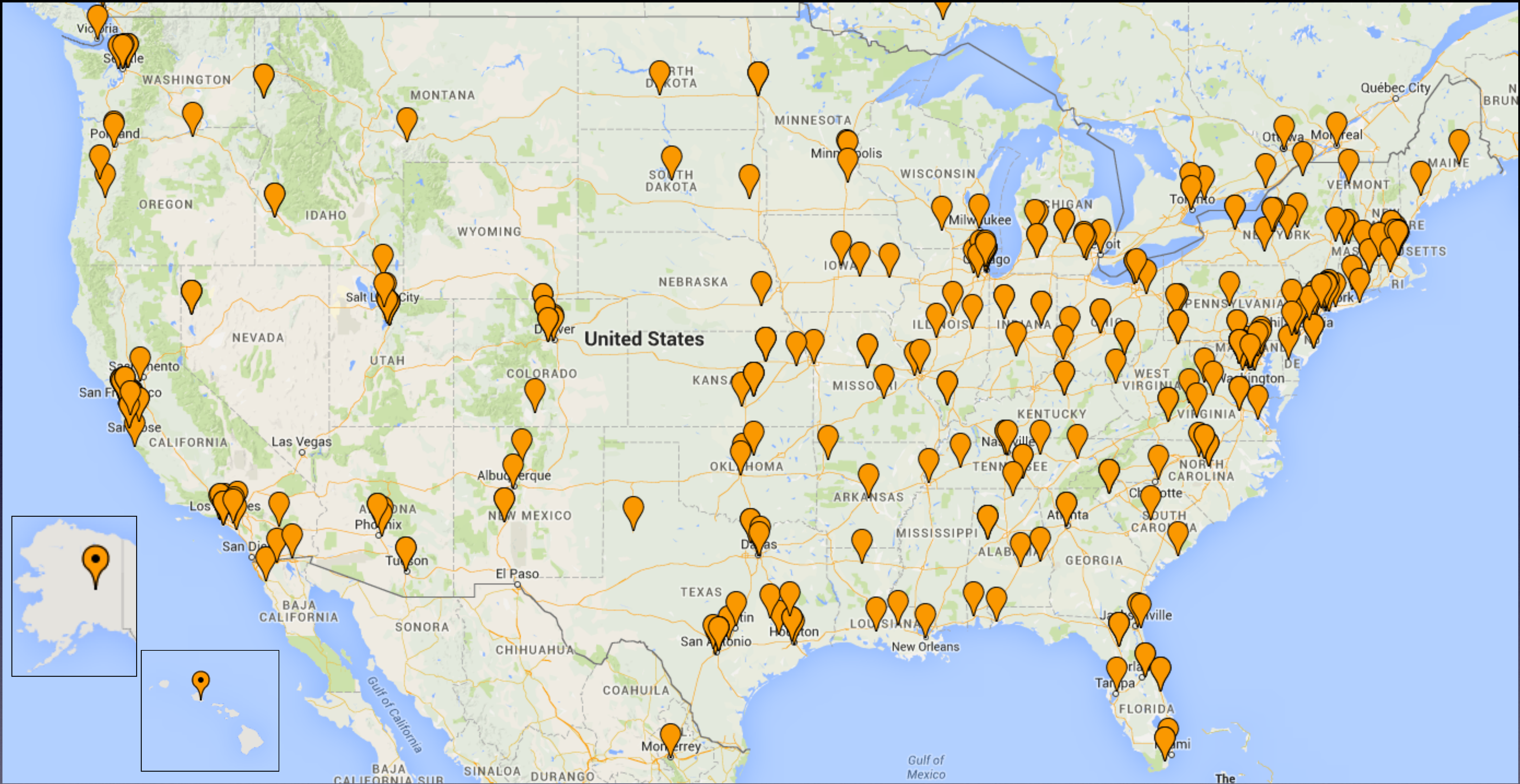
# GENI Usage Patterns

Network research: future Internet architectures and protocols, clean-slate networking, IP-compatible and non-compatible experiments, cloud infrastructures, cellular wireless research

Computer science & STEM education: remote, distributed classroom laboratory, curriculum modules

Novel distributed app & service development: shared data applications, low-latency (locavore) and real-time interactions

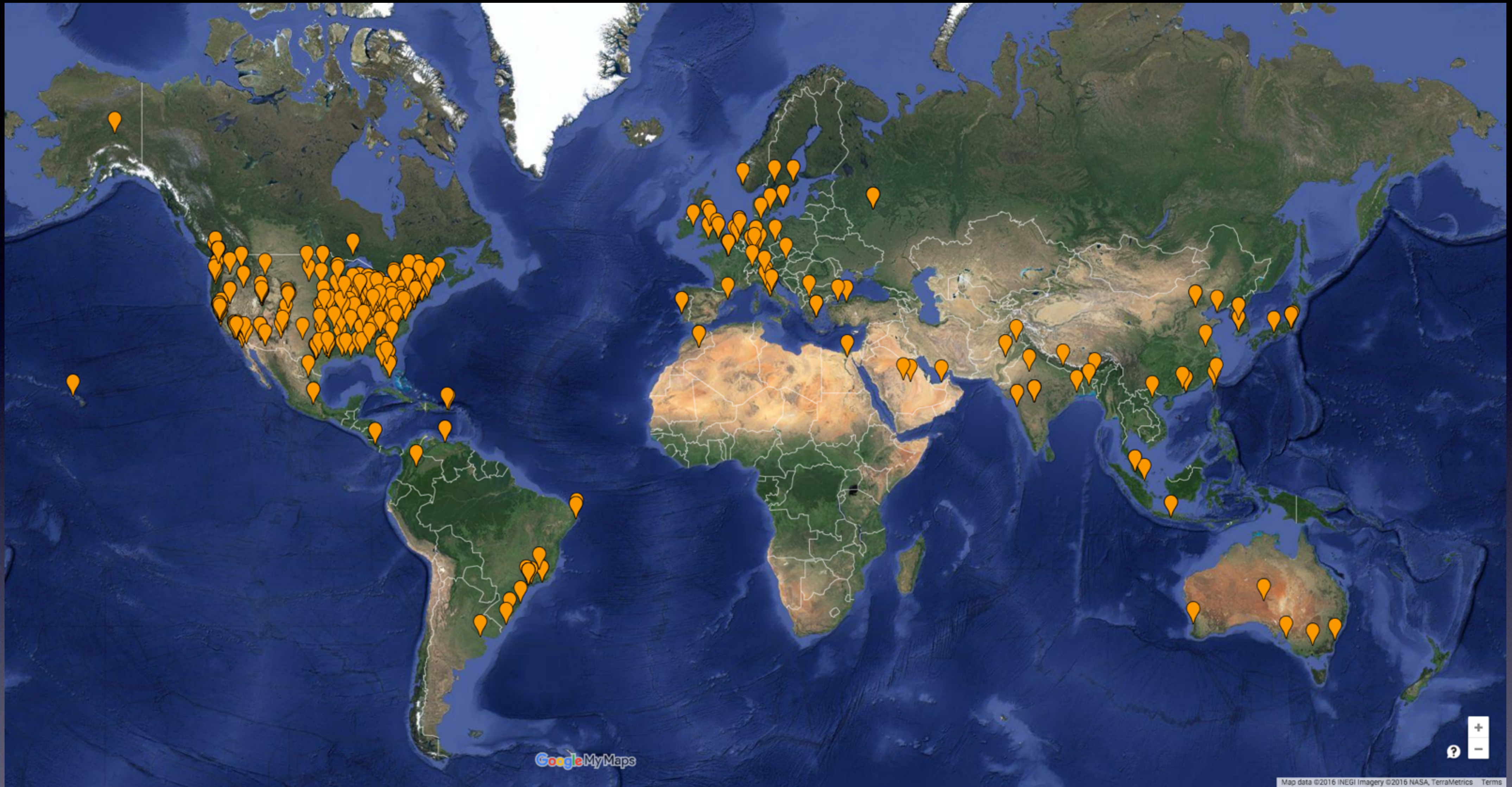
Dynamic infrastructure: software-defined exchanges & infrastructure (SDX/SDI), Science DMZ as a Service



# GENI Users Span the US

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# Supporting International Collaborations

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**Jim Kurose**  
NSF



# Some thoughts on sustainability

**Nancy Forbes**  
NITRD NCO





# Future Planning Workshops “Looking Beyond the Internet”

Chip Elliott  
BBN





# geni

Exploring Networks  
of the Future



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