GENI Terminology

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Exploring Networks
of the Future

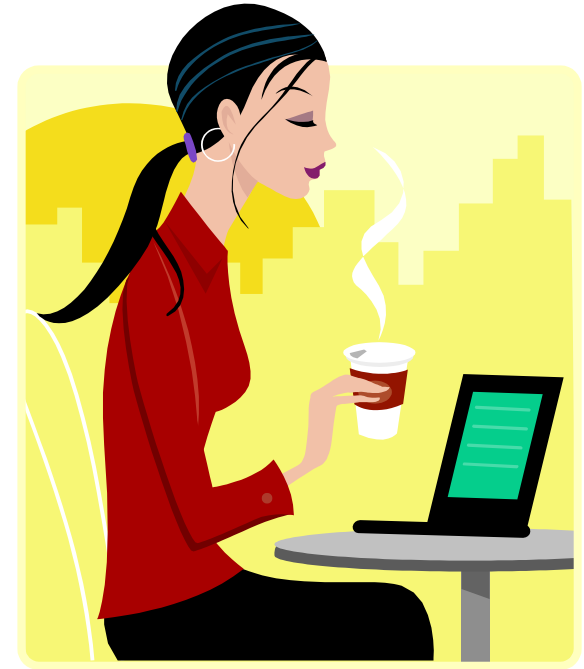slice

project

experimenter

resource

aggregate

An **experimenter**

is a researcher who uses GENI resources

Different types of experimenters have different roles and permissions:

- Advisor vs Grad Student
- Teacher vs TA vs Student

Experimenter

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Creating an Account

Use GENI

GENI Portal is at:

https://portal.geni.net

Instructions for creating an account are:

http://groups.geni.net/geni/wiki/SignMeUp

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GENI User Authentication

The GENI Portal leverages InCommon
for single sign-on authentication

Experimenters from 304 educational and research institutions have InCommon accounts
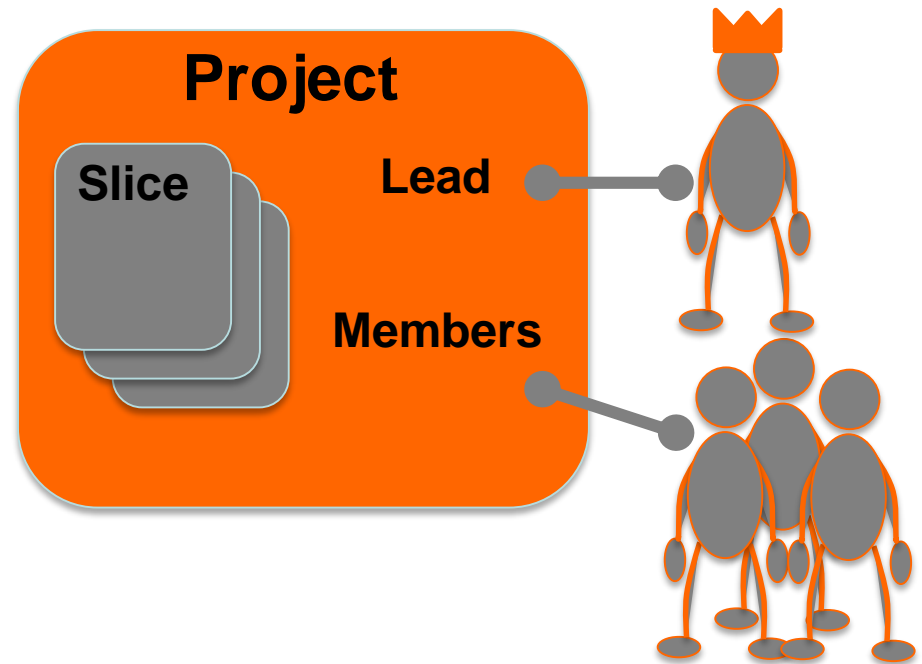
For many experimenters:
- no new passwords
- familiar login screens

GENI Project Office runs a federated IdP to **provide accounts** for non-federated organizations.

Projects organize research in GENI

Project

Slice

Lead

Members

Projects contain both **people** and their **experiments**

A project is led by a single responsible individual: the **project lead**
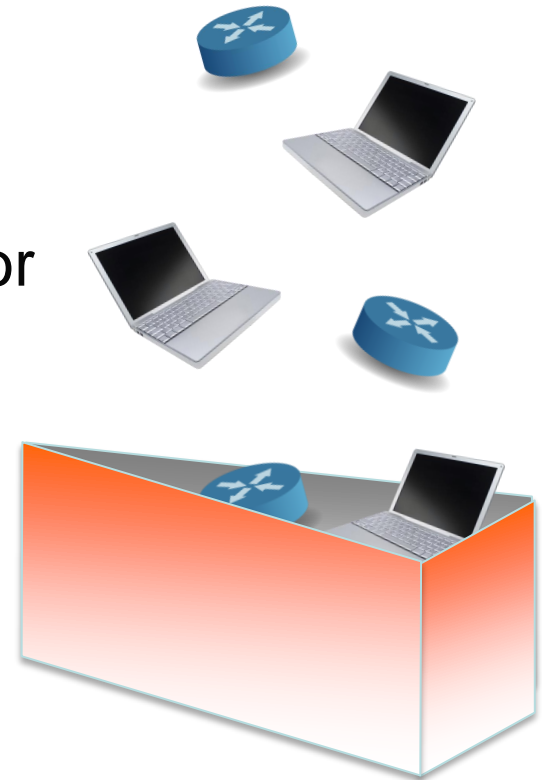
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A **slice** is a *container* of resources used in an *experiment*.

A slice can contain resources from one or more aggregates

A slice is in a single project

A slice has an **expiration**

Slice names are **public**, **reusable** and **unique** *(within a project)*

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A **resource**

is a piece of infrastructure

A resource can be real or virtual.

Resource specifications (aka. **RSpecs**) are used to describe and request resources.

Examples:

- Compute: computer vs virtual machine (VM)
- Wireline Network: VLAN or OpenFlow
- Wireless: WiMAX

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An **aggregate** manages a set
of reservable **resources**

Aggregates include:
GENI racks
OpenFlow
WiMAX

InstaGENI Rack

*insta*GENI

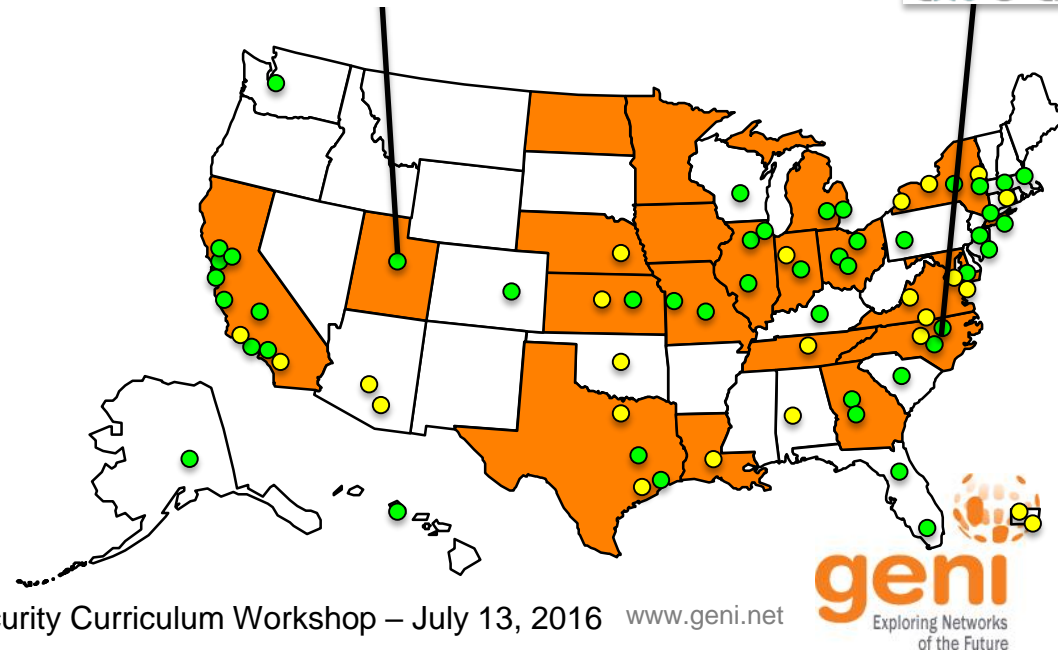**ExoGENI Rack**

ExoGENI

project

Lead:

Experimenter
(aka Professor)

Member:

Experimenter
(aka Student)

slice

aggregate

resource

Layer 2

resource

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Demo