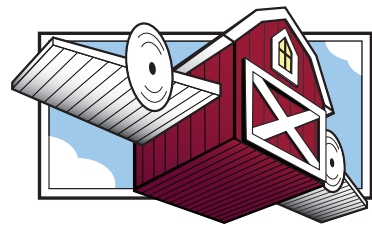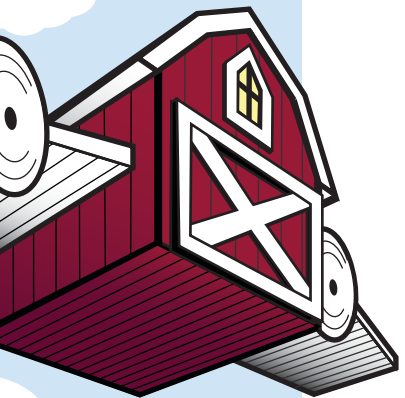# Getting Started with geni-lib

BARNSTORMER
S O F T W O R K S

What is geni-lib?

- Python library for:

  - Communicating with GENI Federation components

    - Clearinghouse (Slice / Member authorities), Aggregates

  - Programmatically working with GENI data (rspecs, credentials, etc.)

- http://geni-lib.readthedocs.io

What is it for?

- Building small utilities

- Experiment orchestration

  - Easy repeatability / deployment

  - Scaling up/down

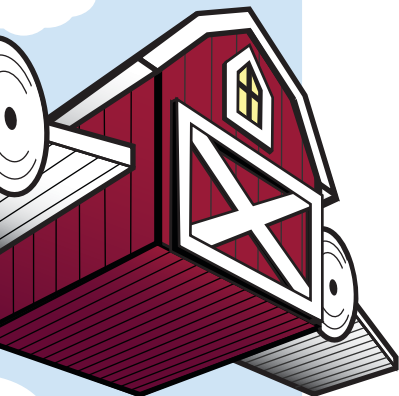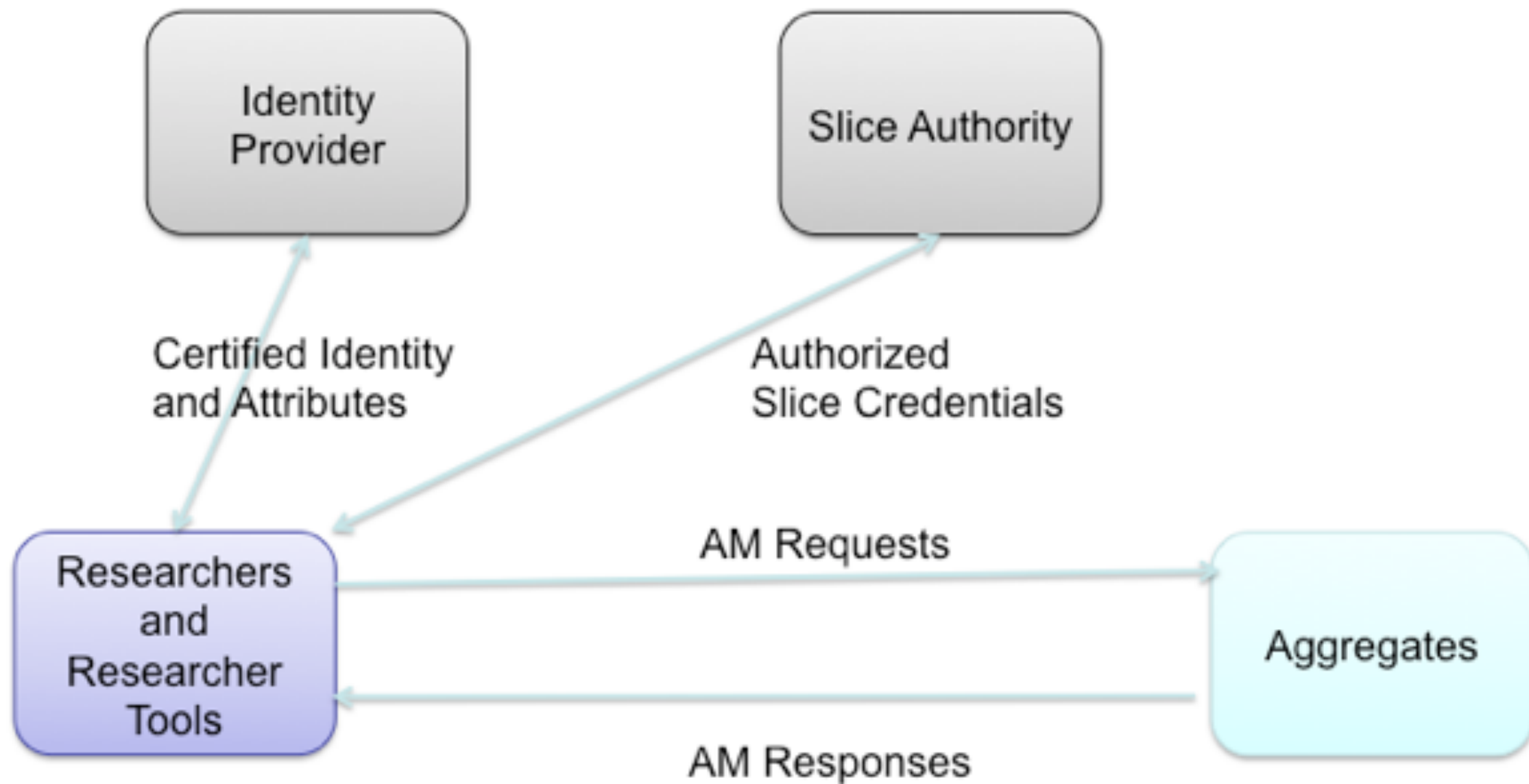- Easy interaction with clearinghouse or aggregates without using Portal
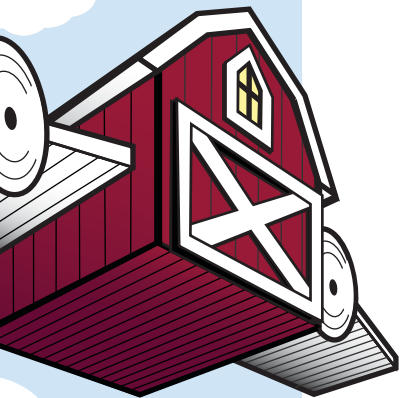
Building Tools

- Doesn't have to be hard

  - (to do simple things)

- You may need to be exposed to a few more specific pieces of the GENI Architecture
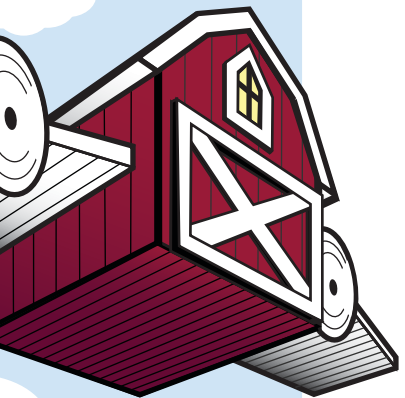
  - GENI Software Architecture Document
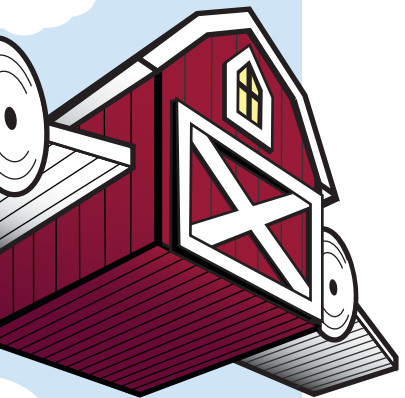
Federation Interactions

Interactive Use

- genish command line shell

  - Python interpreter wrapped with GENI support

- iPython notebook extension

  - Can be added to your own Jupyter installation, or used from our simple Vagrant VM
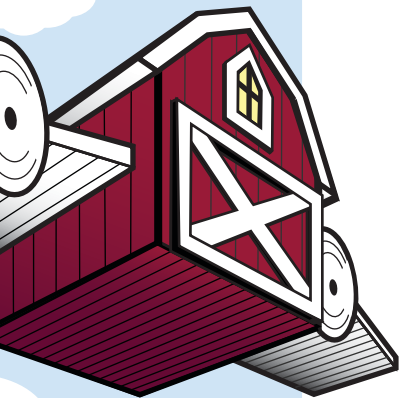
GENI Features

- Base GENI v3 request / advertisement / manifest rspecs

- Many emulab/InstaGENI/Cloudlab extensions

- Stitching Requests

- All VTS extensions

- AM API v2 and v3 (including POAs)
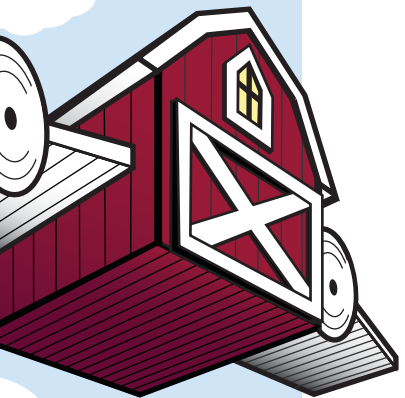
Support

- File tickets for features if you find something you need

  - http://bitbucket.org/barnstorm/geni-lib/issues

- Get usage help from geni-users google group

Demos!