

### **Software Track Outbrief**

# GEC 12 Kansas City

Tom Mitchell November 4, 2011 www.geni.net



#### **GEC 12 Software Track**

- Project Highlights
- I & M Working Session
- Control Framework Topics
- Aggregate Manager API
- Authorization
- Cloud Computing Workshop
- Experimenter Roundtable
- ORCA Cluster Meeting
- ProtoGENI Cluster Meeting
- Coding Sprint for Developers and Experimenters



### Control Framework Topics: Updates

- InCommon and GENI Portal update
  - Metadata published and 2 Identity Providers share data with the GENI Project Office Service Provider
- RSpecs in GENI are now known as GENI v3
  - Hosted on geni.net
- Stitching update from Tom Lehman
  - Reviewed the adopted architecture and schema
  - Omni has a tree mode library
  - Negotiation and chain mode are next work areas



## Control Framework Topics: Clearinghouse Panel

- Adam Slagell chair
- Ilia Baldine, Andy Bavier, Ted Faber
- Follow-up to GEC 11 Federation presentation
- Essential vs. optional Clearinghouse services
- Project Leader
  - General agreement that these are people endorsed as responsible by the Clearinghouse
- Cross-aggregate coordination
  - Are there federation wide policies requiring global knowledge?
  - We have no good use cases
  - There was strong argument against requiring such coordination



## Aggregate Manager API

- Shaping version 2
- RSpec changes
  - Rough consensus, running code
  - Already widely deployed ProtoGENI, PlanetLab,
    ORCA, OpenFlow
  - Standardized schemas
- Richer arguments
  - Open all calls with the ability to add options
- Richer return values
  - Structured returns to provide more information to clients



## Aggregate Manager API (cont.)

- Update slices / slivers
  - Discussed more broadly on dev@geni.net, only briefly in meeting
  - Some contentious points
- Tickets
  - Guest speakers: Rob Ricci, Ilia Baldine, Andy Bavier
  - Discussed current implementations
  - Discussed benefits
    - Two-phase commit
    - Resource brokering
    - Future reservations



#### Authorization

- Attribute-Based Access Control (ABAC)
  - Led by Steve Schwab and Ted Faber
- Intro to ABAC
  - Ted Faber, ISI / ABAC
- Proposed vocabulary for GENI authorization
  - Ted Faber, ISI / ABAC
- Accountability and authorization
  - Jeff Chase, Duke / ORCA
- Implementing ABAC in PlanetLab
  - David Cheperdak, University of Victoria
- Security driven pub-sub protocols
  - Richard Kagan, Infoblox



## Authorization (cont.)

- Running code:
  - libabac and creddy from ISI
  - ProtoGENI integration
  - ORCA integration
  - Identity Portal integration
- On track for final vote at GEC 13 (March, 2012)



## Cloud Computing Workshop

- Organized by Rick McGeer (HP) and Vic Thomas (GPO)
- Presentations by:
  - Andy Bavier (PlanetLab/VICCI)
  - Ilia Baldine (ORCA/ExoGENI)
  - Mike Zink (DICloud)
  - Joe Mambretti (StarLight)
  - Steve Schwab (Security)
  - GENICloud Team (U. Vic)



## **Coding Sprint**

- This afternoon from 1:00 PM 4:00 PM
- Free-form opportunity for developers and experimenters
- Work out GENI AM API v2 details
- Assist experimenters build experiments and use GENI