Meso-scale Monitoring: Introduction

Sarah Edwards, GPO

Chaos Golubitsky, GPO

Two goals for today's meeting:

- #1 Bottom-up
  - Continue to address day-to-day issues & pains
- #2 Top-down
  - Look ahead 6-36 months to where GENI is headed
  - Ensure:
    - We don't ignore any important pieces
    - Architecture decisions reflect needs of monitoring so that GENI Clearinghouse, I&M, etc serve our needs
    - Where possible, we build tools which can be adapted to new software when it becomes available

- Introduction [5 min]
  - Sarah Edwards, GPO
- Bottom-Up
  - FOAM: New OpenFlow Aggregate Manager [10 min]
    - Josh Smift, GPO
  - Using SNAPP to Find and Visualize GENI Monitoring Data [20 min]
    - Camilo Viecco, Indiana University & John Meylor, Indiana University
  - Topology [15 min]
    - Chaos Golubitsky, GPO
- Top-Down
  - Monitoring/Mgmt Requirements & Discussion [1 hour]
    - Sarah Edwards, GPO

GEC12 Status & Change since GEC11

Status		Requirement/Pain Point
🟢	(1)	Standard monitoring stats: cpu, mem usages; i/f stats

✔ 🟠	(2)	Topology information.
		   (a) End-to-end testing/Network reachability
		   (b) Integrity of topology.

🟠	(3)	OpenFlow Stats
NEW @ GEC11 🟠	(4)	Make monitoring software easier to deploy (ie. plastic slices monitoring software)
✔ NEW @ GEC11 🟠	(5)	Administering OpenFlow AM (OF Opt-In) and tie-together GENI things for OF (ie slivernames hard to determine from slice name)
🔴	(6)	Aggregate/campus/slice view of resources and their availability

✔ 🟠	(7)	Sharing data
		   (a) SNMP data
		   (b) Sharing of non-SNMP data

🔴	(8)	Privacy
🔴	(9)	Collecting and sharing of GENI usage/overall experiment stats
🔴	(10)	Accountability report: How to prove if this is not my fault?
	(11)	Others?