GENI Meta-Operations Center Post-GEC14 Report

7/11/2012-10/23/2012

Jon-Paul Herron – Principal Investigator

Luke Fowler – Co-Principal Investigator

Summary

- *Operating within Budget*
- *On track to complete milestones as planned*
- *Increased client support for data submission*
- *Increased data collection from ExoGENI and InstaGENI*
- *Display of additional data in the GMOC UI*
- *Completed Emergency Stop trials*

Major Accomplishments

Milestones Achieved

Expanded Client Support – the data submission client was expanded to include status measures for the overall operational state of aggregates and resources as well as metadata about slice authorities, resources, and slivers.

Increased data collection from ExoGENI and InstaGENI – a new version of the GMOC client was released to the Racks teams and integrated into their reporting infrastructure. Several additional measurements and a larger set of metadata is being reported to GMOC from 17 sites.

UI Enhancements – the GMOC DB user interface was expanded to include sections on aggregates, slice authorities, and slivers. These sections include

more information than before and make metadata and time-series data available for all elements.

Emergency Stop Trials – during the time period between GEC13 and GEC14, two emergency stop drills were conducted successfully.

Project Participants

During this time, key participants in GMOC included:

Jon-Paul Herron, PI
Luke Fowler, Co-PI
Kevin Bohan, Senior GMOC Engineer
Mitch McCracken, Senior GMOC Engineer

Collaborations

GMOC has continued the process of working with exemplar projects regarding data acquisition.

PlanetLab – GMOC has continued data collection from PlanetLab's CoMon interface and into the GMOC database.

ExoGENI – GMOC has started collecting data from ExoGENI using the ExchangeAPI push interface.

InstaGENI – GMOC has started collecting data from InstaGENI using the ExchangeAPI push interface.

OpenFlow at Indiana University – GMOC has continued data collection from Indiana University's OpenFlow switches using SNAPP.

OpenFlow at Internet2 – GMOC has continued data collection from the Internet2 Network's OpenFlow switches using SNAPP and metadata from the Internet2 aggregate manager using the ExchangeAPI push client.

OpenFlow At National LambdaRail – GMOC has continued data collection from the National LambdaRail OpenFlow switches using SNAPP.

Planned Activities for period before GEC15

Allowing partial data submission from the ExchangeAPI client, creation of new API for data submission, creating a reference implementation of the submission

API in Python, and establishing an operational status map of the GENI mesoscale network.

Continue refining procedures for Emergency Stop. Continue to build the operational contact database.

Work with GPO and other members of the GENI Operations Team to integrate additional data into the GMOC data set.