GENI Meta-Operations Center Quarterly Report

4/1/2010-6/30/2010

Jon-Paul Herron – Principal Investigator

Luke Fowler – Co-Principal Investigator

Summary

- *Operating within Budget*
- *On track to complete milestones as planned*
- *Continued talks with exemplar projects regarding data sharing*
- *Initiation of federation activities with K-GENI*
- *Initiation of data collection from ORCA*
- *Initiation of data collection from Indiana University Openflow deployment.*

Major Accomplishments

Milestones Achieved

No milestones were due for this report.

Deliverables Made

- Updated GMOC visualization at GMOC portal (http://gmoc.grnoc.iu.edu)
- Initial efforts for data exchanges with ORCA

Description of Work Performed During Last Quarter

Activities and Findings

- Deployment of the K-GENI GMOC portal based on the tagged GMOC release and continued work to gather more data from more clusters.

- Finalized connectivity between K-GENI and GMOC in preparation for operations federation activities.

- Participated in Instrumentation and Measurement working group effort to coordinate efforts on instrumenting GENI and data exchange with GMOC

- Began investigation into data sharing capabilities for GpENI

Project Participants

During this time, key participants in GMOC included:

Jon-Paul Herron, PI
Luke Fowler, Co-PI
Camilo Viecco, Senior GMOC Engineer
Chris Small, Technical Staff
Jeff Catania, GMOC Undergraduate
Nick Baker, GMOC Undergraduate

Publications

Outreach Activities

Undergraduate Development Assistance: Jeff Catania and Nick Baker, two undergraduates for the IU Computer Science department have assisted with research activities into GENI projects and existing data sharing options.

Collaborations

GMOC has continued the process of contacting exemplar projects regarding data acquisition and limitations of the current operational data format.

GpENI: GMOC has deployed a GpENI node at Indiana University, has connected this to

the larger GpENI environment, and is investigating operational data sharing for GpENI nodes.

ProtoGENI: ProtoGENI has provided SNMP access to the Internet2 Collocated backbone switches. GMOC is collecting data on this system using SNAPP, the GRNOC tool for SNMP data collection.

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

ORCA: GMOC has started using ORCA's interface for data sharing. The interface is still limited but is expected to have as subset of the data requirements after GEC8.

K-GENI: GMOC has worked with K-GENI to have a federated GMOC between GMOC and K-GENI. GMOC has provided source code and assistance with now K-GENI running a GMOC-KR instance.

Openflow at Indiana University GMOC is now also collecting data from the Indiana University's Openflow switches via SNAPP.

Openflow at National Lambda Rail GMOC has approached NLR to start collecting SNMP data and topology of the Openflow deployments at the National Lambda Rail.

Planned Activities for Q4

GMOC is on target to reach our planned milestones and provide the planned deliverables for Q4 of Spiral 2. This includes the final version of the spiral 2 data sharing system and the multi-cluster GENI-wide visualizations.