



GENI Meta-Operations Center Service Desk

Project Status Report

Spiral 4, Post GEC15

Period: 08/01/2012-10/31/2012

Marianne Chitwood – Principal Investigator

Summary

- *Operating within Budget*
- *On track to complete remaining milestones as planned*
- *Completed all remaining Service Desk Statement of Work milestones*
- *Continuing to work on any remaining items for improving support*
- *Implemented workflows for GENI Racks*

Major Accomplishments

Milestones Achieved

- ***S4.g Complete revisions of processes and documentation and begin production operation of support desk. Plan to report on efforts and successes at subsequent GECs. (August, 2012)***

On-going training for the Service Desk staff of GMOC tools and current support – Emergency Stop, GENI Integrated Backbone Outages/Maintenances, I2/NLR/Indiana/MOXI FOAM workflow, Disruptive Experiments Reservation and Maintenance Freeze workflows, GMOC Database training, GENI Racks, etc...

Service Desk SOP Documentation is continuing to be posted internally on the GMOC Site (need GRNOC credentials to view) [GRNOC](#) > [GENI: GMOC](#) > [Documents](#)



Service Desk continues to work with upcoming Regionals and GENI Racks to setup operational/Emergency Stop contacts in the GMOC database for Aggregates and making sure they're sending data to GMOC. Additionally GMOC SD has transitioned from project status to operational status by working with GPO to setup a bi-weekly GENI Ops meeting and bi-weekly GENI Network status report.

Deliverables Made

- GENI support processes and documentation updates
- Implemented workflow for support of GENI Racks
- Continued database updates with operational aggregate contacts
- Completed all remaining milestones in the initial Service Desk Statement of Work.

Description of Work Performed During Last Quarter

Activities and Findings

The GMOC Service Desk has continued to operate in full operational mode by providing 3 major areas of support for the GENI Community:

- **GENI Emergency Stop:** Service Desk and Network Engineering groups have continued to streamline the workflows as well as train staff to perform an Emergency Stop. GMOC worked with GENI Racks teams to streamline process for tracking and notification of GENI Rack outages and maintenances. These processes were presented at the GENI Racks session at GEC15 and have generated some discussion and feedback. GMOC will continue to improve tools and processes to allow for pro-active monitoring of GENI Racks as well as providing targeted notifications to the GENI experimenters based on Slice ownership and affected GENI Aggregates that are reporting to GMOC.
GMOC has continued with training for staff to be better prepared on the 24x7 basis and further development of tools that may help in quicker response to Emergency Stop requests and other instabilities and outages in the GENI Infrastructure.
- **GENI Integrated OpenFlow Backbone network support:** GMOC Service Desk continues to streamline processes and procedures to provide 24/7 monitoring and NOC Service Desk support for operational issues on the GENI OpenFlow Backbone. GMOC is working towards



better monitoring and visibility into the GENI OpenFlow Backbone.

GMOC has integrated Network Engineering team at GRNOC to provide Round-robin engineering support for Tier 2 support for GENI related issues to provide network problem troubleshooting, Emergency Stop request response and issue resolution.

- **GENI Operations Mailing list and improved notifications:** GMOC continues to provide notifications for the GENI community via the GENI Ops mailing list (GENI-Ops@grnoc.iu.edu). Monthly reminders continue to be sent to the experimenters@geni.net mailing list to invite interested experimenters to the list and update on any other GMOC developments.
- **Disruptive Experiments Reservation Workflow:** GMOC Service Desk with GPO coordination continues to provide a workflow to handle approval and reservations for potentially disruptive experiments that may negatively affect the GENI OpenFlow Mesoscale VLANs and other GENI resources that are being used by other experimenters across GENI. GMOC approves and posts such events on the GMOC Operations Calendars and notifies the GENI community of reservations for any potentially disruptive experiments that are reported to the GMOC.
- **Regionals Turn-up Workflow:** GMOC Service Desk, Network Engineering groups in coordination with GPO continue to connect GENI Regionals to the GENI OpenFlow Core by tracking turn-ups, collecting contact information, setting up data collection, monitoring, scheduling turn-up and notifying the GENI community of upcoming connections, as well as engaging appropriate network and systems engineering groups to help troubleshoot any problems with connecting a GENI Regional to the Core backbone.
- **GENI Racks Turn-up Workflow:** GMOC worked with the InstaGENI and ExoGENI Racks teams to setup workflows and tools to turn-up as part of the acceptance testing of the GENI Racks for collecting data from the racks and contact information for Emergency Stop. Several Racks are beginning to send their data to GMOC and reporting outages and maintenances for tracking and notification to the GENI community.

Project Participants

During this time, key participants in GMOC Service Desk included:



- Marianne Chitwood, PI
- Eldar Urumbaev, GENI SST
- Adam Williamson, GRNOC Service Desk Supervisor
- John Wilson, GRNOC Project Management Team Representative

Outreach Activities

Online community building using GMOC web site: GENI GMOC web site is continuing to be updated to provide up-to-date information on GENI Service Desk support including ticketing system and tools, operations calendars and GENI Resource Approval/Inquiry form. Kevin Bohan and Eldar Urumbaev presented a session at GEC15 on the GMOC-DB and Measurement API improvements/updates as well as Service Desk support for GENI Racks and future goals and improvements for both.

Collaborations

GMOC Service Desk continued work with Internet2 and NLR NOCs to provide an “umbrella” support for the GENI Integrated Backbone. GMOC Service Desk representatives have continued to join the bi-weekly Regionals call as well as continuing representation on the Friday weekly calls with GPO: Network-Core and Monitoring. Starting November 9th, 2012, GMOC will have a GENI Ops agenda item on the GENI Network Core call to provide operational status report via a bi-weekly report as well as discuss any other operational items going forward.

During GEC15 Service Desk representatives focused on generating discussion for future support of GENI both with GPO and the greater GENI community.

Planned Activities for Spiral 5

GMOC Service Desk will continue to work on improving all existing tools and processes for the continued support of GENI. This includes:

- Continue to work on tools for the GMOC Service Desk for experimenter support and any upcoming changes in the GENI Core. This will most likely include:
 1. Working on improvements of GMOC Database contacts structure and integration with the ticketing system.



2. Improved reporting based on the new GENI Ops call and continued experience with supporting GENI.
 3. Transitioning GENI Core monitoring to GMOC.
- Continue to keep current the [GMOC website home page](#) and the [GENI Meta Ops page](#) on GENI Wiki to include current support features for experimenters and the GENI community as a whole.