GENI Meta-Operations Center Service Desk

Project Status Report

Spiral 5, Post GEC20

Period: 4/01/2013-06/31/2014

Marianne Chitwood – Principal Investigator

Summary

- *Operating within Budget*
- *Completed all remaining Service Desk Statement of Work milestones*
- *Continuing to work on current and consistently improving support for the GENI Community*
- *Performed an LLR Request Exercise with ExoGENI*
- *Continuing GENI Racks and Regionals turn-ups*

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)*

Continued training for the Service Desk 24/7 staff and Co-SST (Vince Neil) of GMOC tools and current support – Emergency Stop, GENI Integrated Backbone Outages/Maintenances, I2/Indiana/MOXI FOAM workflow, Disruptive Experiments Reservation and Maintenance Freeze workflows, GMOC Database training, GENI Racks Outage/Maintenance tracking, etc...

Service Desk performed another GENI LLR Request exercise; this time with ExoGENI. Service Desk continues to work with upcoming Regionals and GENI Racks to setup Emergency Stop contacts in the GMOC database for Aggregates and making sure they're sending data to GMOC and other operational-ready tasks via a stream-lined GENI Aggregate GMOC Turn-up Process.

Deliverables Made

- GENI support processes and documentation updates and improvements
- Continued event tracking support of GENI Racks
- Continued database UI and functionality updates for Emergency Stop and LLR Process
- Continued to provide turn-up for GENI Racks and other aggregates via the GENI Aggregate GMOC Turn-up Process.
- Performed LLR Exercise with ExoGENI.

Description of Work Performed During Last Quarter

Activities and Findings

The GMOC Service Desk continues to operate by providing following areas of support for the GENI Community:

- **GENI Emergency Stop:** GMOC continues to maintain operational list of Emergency Stop contacts for all GENI Aggregates and the process for performing an Emergency Stop.
- **GENI LLR Request Exercise with ExoGENI:** GMOC along with currently designated GENI LLR representative, Stephen Schwab, a GPO representative, Ilya Baldin RENC, ExoGENI admin, conducted an exercise of an LLR Request test scenario based on the GMOC's LLR Request Process - GENI LLR Procedure Workflow.
  The finding of the exercise confirm that the over-all GMOC LLR Request Process works with 3rd party, such as an Aggregate Operator, however further tools development is needed and assuring proper data is submitted into the GMOC-DB in order to be able to find GENI resources and parties responsible for them. It remains clear that historical data of GENI resources linked to their slice owners, etc… is needed to properly handle the LLR requests as slices expire and often LLR requests can often come in with significant delay and it would be difficult to track an offending party/entity if slice ownership has change/expired. Related to
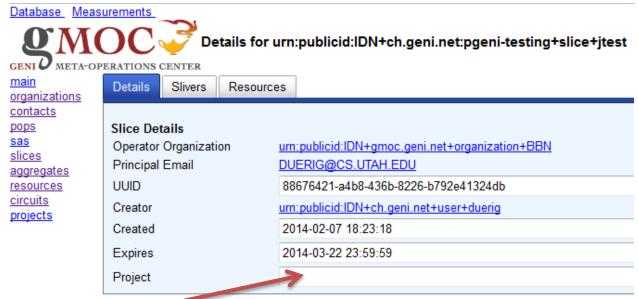
this, it is also important for GENI to determine a policy of how long historical data is kept. Without this policy, GENI can be at risk of having LLR requests to look up and turn over arbitrary amounts past data. GPO should think about incorporating this as a policy going forward and as operational monitoring architecture is developed.

During this latest exercise identified 2 areas that needed addressed

1. If GMOC cannot determine who owns the offending IP/issue we will have to blast the ExoGENI and InstaGENI lists for help from both to help determine who can help us
   a. EXOGENI can create a tool to determine if an IP address is EXOGENI or not.

   b. OPS Monitoring should also be able to resolve the granularity issue and GMOC should be able to find information once Monitoring is up.

2. Who sets priority?
   a. We discussed that we (GMOC) should respond to initiator with an expectation of next Business day for resolution.
   b. No afterhours support unless its urgent, like court
      order etc..
      i. In such cases LLR representative should be contacted and make the decision.

GMOC-DB now has built-in functionality for looking up Project Owner as well as slice owner contact information, however Clearing House and Slice Authorities will need to begin sending this data to GMOC.

Lessoned learned from the first test were incorporated. GMOC provided a phone bridge and used a chat room and IRC channel for communication.

LLR representative had consistent access to the GMOC-DB, GMOC ticketing systems and other GENI tools. GMOC will continue to make sure LLR is well represented as one of the Operational Monitoring use cases and tools and data is available to support LLR and Emergency stop as operational monitoring efforts progress.

GENI Integrated OpenFlow Backbone network support update: GMOC Service Desk worked with GPO network engineers to transition NLR Core resources to Internet2 during the pending shut-down of NLR.

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

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, documents, tools and operations calendars.

Eldar Urumbaev presented about GMOC updates at GEC19 during the GENI Operations session. GMOC continues to collaborate with the GENI Rack teams, Regionals and Operational Monitoring project representatives to help in GENI's transition to Operations.

Collaborations

GMOC continues to collaborate with the GENI Rack teams, Regionals and Operational Monitoring project representatives to help in GENI's transition to Operations.

Planned Activities for Spiral 5

GMOC Service Desk will continue to provide full range of existing support as well as reach out into new areas of improved support including:

- Work on improving overall visibility and reporting in GENI by taking active role in operational monitoring efforts and development.
  1. Continue performing LLR Requests dry-runs.
  2. GMOC-DB UI and schema supporting LLR requests by easily identifying GENI resources. Making sure all Campuses are sending IP data to GMOC and GMOC is able to lookup Project Owner data from Clearing House and Slice Authorities.
  3. Continue to feed monitoring use-cases for future GENI Operations.
- 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.