G E N I

Global Environment for Network Innovations

GENI Quarterly Status Report

Document ID: GENI-QSR-LEARN-Dec31-2010

December 13, 2010

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Under Project Nr. 1733

"Programmable Measurements over Texas-based Research Network: LEARN"

Document Revision History

The following table provides the revision history for this document, summarizing the date at which it was revised, who revised it, and a brief summary of the changes. This list is maintained in chronological order so the earliest version comes first in the list.

Revision	Date	Revised By	Summary of Changes

Programmable Measurements over Texas-based Research Network: LEARN
GENI Quarterly Status Report
Project no: 1733

PI: Deniz Gurkan
Department of Engineering Technology, University of Houston, Texas

[1] Major Accomplishments

This project involves collaboration with the ORCA-BEN project for integration with LEARN [LEARN_1]. An emulation network has been realized and tested in Dr. Gurkan's research lab. Charles Chambers (Manager of Network Planning) and Tesfaye Kumbi (Network Analyst) have been assigned to assist with the configuration of Cisco 3400 switches towards deployment on LEARN.

Dr. Gurkan attended the LEARN Technical Advisory Group (TAG) meeting on December 8, 2010 to present GENI activities related to LEARN integration. TAG member institutions indicated their support to deploy switches on their campus. Also, LEARN has approved on-demand VLAN allocation to GENI infrastructure integration demonstration in March 2011.

Eucalyptus cluster acquisition is in progress pending input from the ORCA-BEN team on system specifications.

[2] Milestones

Demonstration at GEC9 and Experimenter Outreach. Due 11/5/10

- Capabilities to demonstrate include complete deployment of ORCA container at the University of Houston, including service manager, broker(s), and site authoritie(s).

Documentation and Code Release. Due 11/18/10 (Delivered on October 6th, 2010 to ORCA-BEN team and confirmed that it is integrated to the code)

- Includes release of handler code for Cisco 3400 switches for VLAN management in ORCA.

[3] Deliverables Made

Documentation and Code Release. Due 11/18/10 (Delivered on October 6th, 2010 to ORCA-BEN team and confirmed that it is integrated to the code)

- Includes release of handler code for Cisco 3400 switches for VLAN management in ORCA.

[4] Description of Work Performed During the Last Quarter

Deployment of Cisco 3400s to the Texas institution sites has been coordinated with LEARN and the institutions. We expect to send the switches by mid-January 2011.

[5] Activities and Findings

QinQ capabilities will be integrated into ORCA code as LEARN integration progresses. This capability will bring new opportunities for configuration of connections.

[6] Project Participants

PI: Deniz Gurkan, University of Houston, Texas, dgurkan@uh.edu

Senior Personnel: Charles Chambers, University of Houston, Texas, cchambers@uh.edu

Maanasa Madiraju, University of Houston, Texas, mmadiraju@uh.edu

[7] Publications

[8] Outreach Activities

Attendance to the LEARN TAG meeting to raise awareness on GENI infrastructure integration and initiation of planning for a workshop on how to conduct research experiments on LEARN infrastructure.

[9] Collaborations

Cluster D: Renaissance Computing Institute (RENCI) and Duke University: Ilia Baldine, Yufeng Xin, Jeff Chase, and Varun Marupadi.

GPO: Harry Mussman

We closely cooperated with Harry Mussman to create an updated version of the GENI Wikipage and to submit milestone reports and quarterly status reports. Discussions via e-mail on the design and planning of LEARN VLAN delivery to the GENI infrastructure were conducted.

LEARN of Texas: Akbar Kara, CTO of LEARN

We present developments to integrate LEARN to the GENI infrastructure to the constituents of LEARN community. During Technical Advisory Group meetings and otherwise, LEARN is updated on its developing presence in GENI.

[10] Other Contributions

None.

[11] Bibliography

[1] [LEARN_1] Programmable Measurements over Texas-based Research Network: LEARN [Online]. Available: http://groups.geni.net/geni/wiki/LEARN