GENI OpenFlow Project Status Report

Period: October 2010 – December 2010

I. Major accomplishments

A. Milestones achieved

- Contract completed May 25, 2010 (delaying milestones projected to occur beginning March, 2010).
- Completed initial deployment plan
- Ordered NEC IP8800 switches
- Installed an initial Hewlett-Packard (HP) 3500 switch in Atlanta.
- Installed a 10GE connection to National Lambda Rail (NLR) OpenFlow switch
- Installed NEC switches in five sites: New York, Washington DC, Atlanta, Houston, and Los Angeles.

B. Deliverables made

II. Description of work performed during last quarter

A. Activities and findings

- The HP 3500 switch supported demos for GENI Engineering Conference 9 (GEC 9)
- We received the five NEC IP8800 switches, and installed them in five PoPs: New York, Washington DC, Atlanta, Houston, and Los Angeles.
- We swapped the loaned HP 3500 switch in Atlanta with the NEC IP8800
- The Internet2 switches were interconnected with 1GE interfaces
- OpenFlow backbone Virtual Local Area Networks (VLANs) 3715 and 3716 were instantiated, along with all the temporary hand-crafted VLANs that were in use in Atlanta
- A 10 Gigabit Ethernet interface was connected to ProtoGENI switches in all installed locations (Salt Lake City, Kansas City, Washington DC, Atlanta, Houston, and Los Angeles).

B. Project participants

Eric Boyd (Internet2)
Matt Zekauskas (Internet2)
Brian Cashman (Internet2)
Randy Frank (Internet2)

C. Publications (individual and organizational)

D. Outreach activities

E. Collaborations
- Internet2 contracts with the Global Research Network Operations Center (NOC) at Indiana University to supply NOC services to Internet2 in general. This project has relied on collaboration with the OpenFlow experts within the NOC, notably Chris Small and Matt Davy.
- Matt Zekauskas attended OpenFlow backbone + campus participants meeting at GEC9 (Washington DC, November, 2010).
- Matt, Brian Cashman and Eric Boyd attended periodic OpenFlow backbone meetings ("backbone integration") organized by the GPO.

F. Other Contributions