

GENI Experimenter Feedback

Aaron Gember



Enterprise Centric Offload System

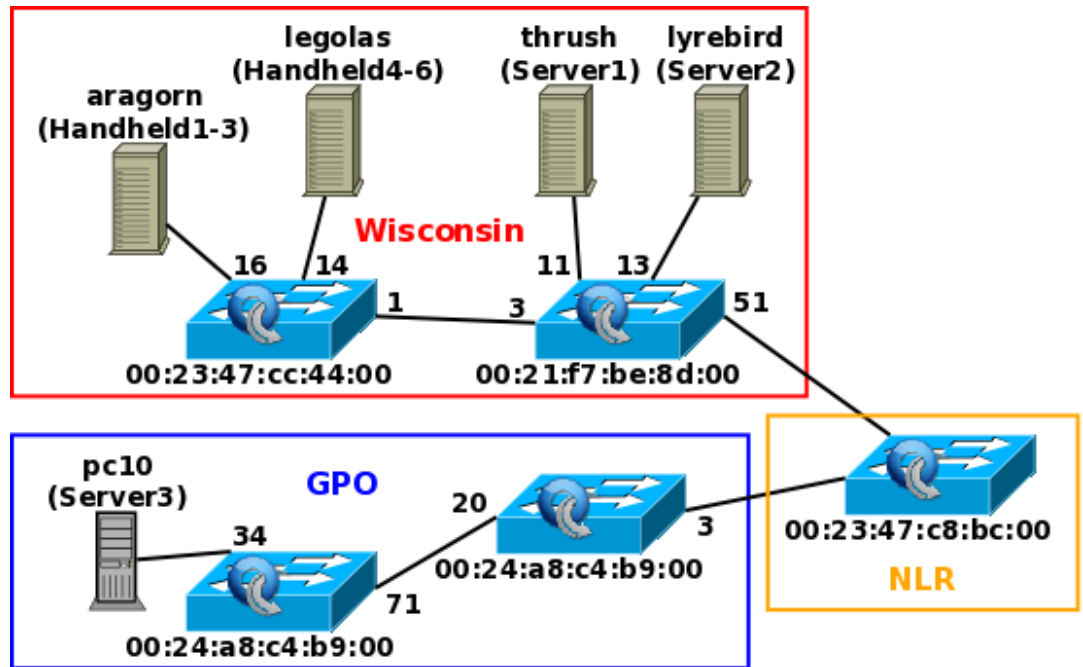
- Mobile application offloading is widely proposed to improve performance or save energy



- We focus on addressing the roadblocks of compute resource trust, availability, and utilization

Experiment: Scheduling Policies

- Seeking to understand the impact of various resource scheduling policies and parameters
- GENI Resources for GEC 12 Demo
 - ProtoGENI Nodes @ GPO
 - OpenFlow Switches @ GPO, Wisconsin, & NLR



Experiment Progress

- GENI resources configured and offloading prototype modified (integrated GENI Visuals, use static IPs, etc.)
- Beginning to answer two questions
 - How significant is the impact of RTT on offload overhead?
 - Can we learn which offloads provided no benefit based on the execution time on the compute resource?
- Delays
 - Prototype modifications to cope with GENI nuances – e.g., patching Android to use static IPs instead of DHCP

Working Well

- **GENI Jabber channel** is great for quick questions and interactive troubleshooting
- **GENI Visuals** is very useful and easy to integrate
- **OpenFlow** and **ProtoGENI resources** work right
- **Aggregate topologies** well documented

Needs Improvement

- **OMNI configuration** not well documented – e.g., adding aliases for aggregates
- Need additional “vanilla Linux box” (i.e., **ProtoGENI**) resources – at least at BBN and Wisconsin
- **Introductory tutorials** lack next steps – e.g., pointers to aggregate documentation
- Useful to have “common **rspec** mistakes” – e.g., flowspace should include ARP EtherType