

CS 6960 Lab assignment 1 README: SDN host mutation

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Package structure

1. *binh_controller.py*: controller and DNS server.
2. *run_all*: bash script to automate the entire experiment.
3. *dns_mutate.py*: controls topology creating and hosts pinging.
4. *result* folder: created after an experiment, store all results.

Requirements

1. The DNS nameserver is 10.0.0.10. Please add this nameserver to the `/etc/resolv.conf`.
2. This runs on POX 0.1.0. (although it passed the test on 0.0.0 also, POX 0.1.0 is recommendation).
Clones the POX by *git clone http://www.github.com/noxrepo/pox*
3. The code of this experiment also locates at: cs6480 repo

Run

1. *Automated running*: cd to the submitted folder and do
`sudo ./run_all <location of pox.py>`.
For example: if the pox.py is in `/home/mininet/pox`, then the command is `sudo ./run_all /home/mininet/pox`
This will: (i) copies *binh_controller.py* to `/home/mininet/POX/pox/samples` (ii) run the *dns_mutate.py* script to generate results in the *result* folder.
2. *Manual running*:
 - (a) Copy *binh_controller.py* to POX's samples directory.
 - (b) Run `sudo ./dns_mutate.py`.
 - (c) The results are in *result* folder.

Results

1. **_ping.result*: results from the ping terminals. There are two ping results from two attackers, you should see different addresses of the protected host in the two files.
2. **.tcpdump*: ascii format of tcpdump of hosts.
3. *flow-table.info*: flow table of the switch obtained by dpctl.
4. *binh_controller.log*: log from the controller (info level).