

CS 7001-03: Report for Lab 4: InterCloud Web Services for OpenStackbased Cloud Orchestration

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1. Screenshot of the "Network Topology" in CloudLab:

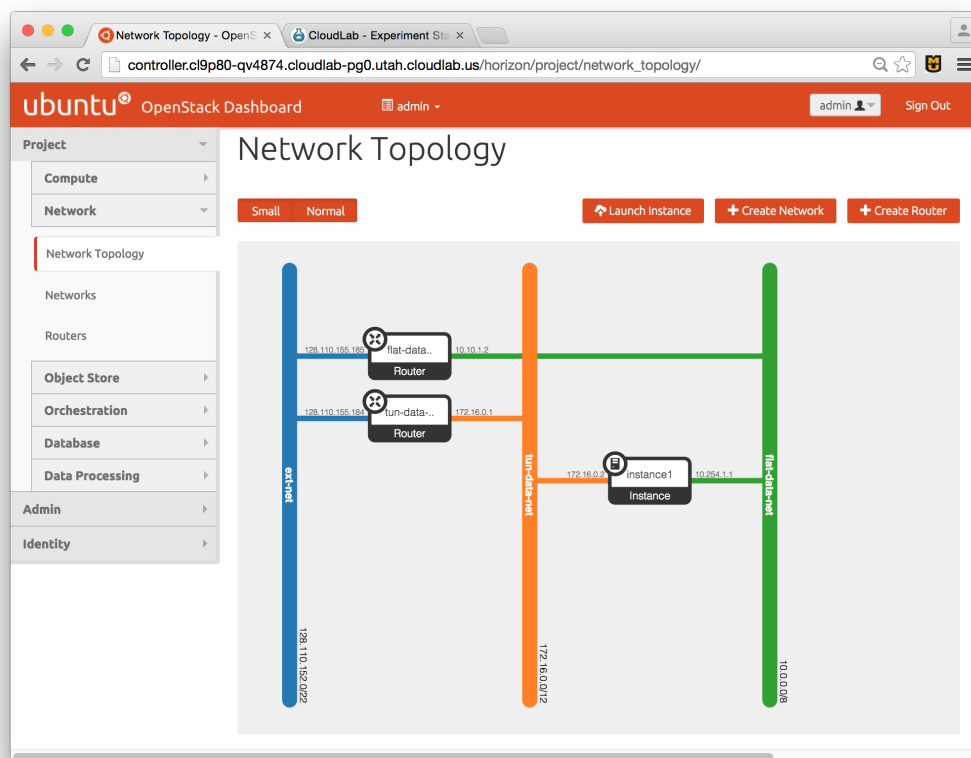
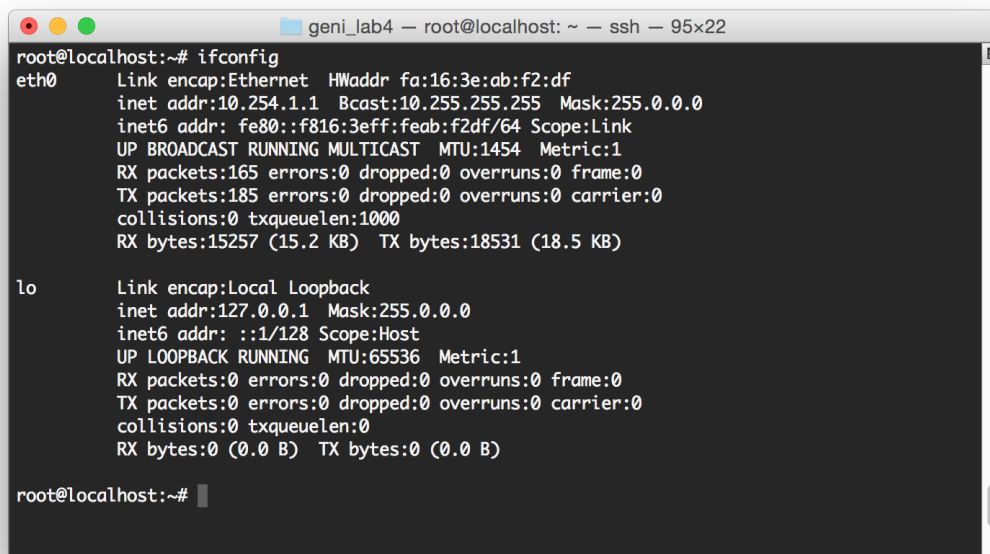


Figure 1: Network Topology in CloudLab

The "Network Topology" tab under the Network section in the above Figure shows the three networks represented by three columns in different colors connected with each others through two routers and a newly launched instance connected to two networks namely "flat-data-net" and "tun-data-net".

2. Screenshot of the "controller" node's MAC address:

A terminal window titled 'geni_lab4 — root@localhost: ~ — ssh — 95x22'. The prompt is 'root@localhost:~#'. The command 'ifconfig' has been executed. The output shows details for the 'eth0' and 'lo' interfaces. For 'eth0', it lists Ethernet link info, IP addresses (10.254.1.1 and fe80::f816:3eff:feab:f2df/64), MTU, and statistics. For 'lo', it lists Local Loopback link info, IP addresses (127.0.0.1 and ::1/128), MTU, and statistics.

```
root@localhost:~# ifconfig
eth0      Link encap:Ethernet  HWaddr fa:16:3e:ab:f2:df
          inet addr:10.254.1.1  Bcast:10.255.255.255  Mask:255.0.0.0
          inet6 addr: fe80::f816:3eff:feab:f2df/64  Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1454  Metric:1
          RX packets:165 errors:0 dropped:0 overruns:0 frame:0
          TX packets:185 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:15257 (15.2 KB)  TX bytes:18531 (18.5 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

root@localhost:~#
```

Figure 2: Controller node's MAC address

3. List in detail the resources available for the deployed cloud infrastructure (vCPUs, RAM, Floating IPs, Security Groups, and Volumes)
4. List the necessary changes in the profile file to add an extra compute node, and submit a revised RSpec.
5. Extend the Intercloud API to display user list (KEYSTONE) as: `curl -u clouduser:EasyPassword15 i http://[IP]:8090/list_user` Provide screenshot of the output.
6. By using your AWS instance setup in AWS Lab2, you should write a web service client (use any language of your preference) to request and display the cloud information available in the JSON file in a simple web site. Include the Amazon DNS link and the code in your submission report.