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:

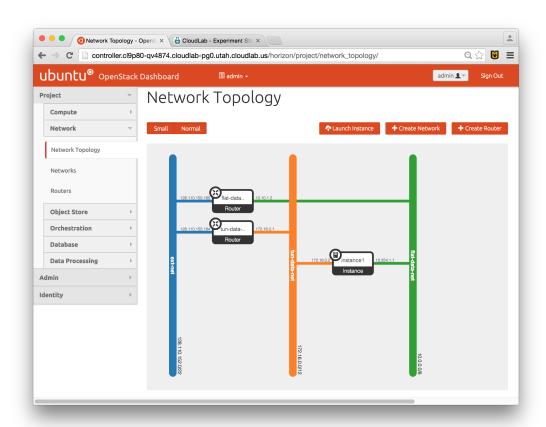


Figure 1: Network Topology in CloudLab

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:

```
geni lab4 - root@localhost: ~ - ssh - 95×22
root@localhost:~# ifconfig
           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 rame: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
           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. The available resources of the deployed cloud infrastructure are summarized in the "Overview" tab under "Project > Compute" section:

vCPUs: 20.

RAM: 50GB.

Floating IPs: 50.

Security Groups: 10.

Volumes: 10.

Volume Storage: 1000GB.

Instances: 10.

- 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.