

1. (35pt) Create a Linux Instance on GCP named **vpn-301-YourMIDAS** (show the IP address and region assigned for the VM).

The screenshot shows the Google Cloud Platform console. At the top, there's a navigation bar with the Google Cloud logo, a search bar, and a 'My First Project' dropdown. Below this, the 'Compute Engine' section is active, showing 'VM instances'. A notification banner at the top of the VM instances page states: 'Your project's VMs use global DNS names by default. To reduce the risk of cross-regional outages, we recommend you use zonal DNS instead. Learn more'. Below this, the 'VM instances' table is displayed. It has columns for Status, Name, Zone, Recommendations, In use by, Internal IP, External IP, and Connect. One instance is listed: 'vpn-301-ajone183' in the 'us-west4-b' zone, with an internal IP of '10.182.0.2 (nic0)' and an external IP of '34.16.169.123 (nic0)'. Below the table, there are three related actions: 'Explore Backup and DR', 'View billing report', and 'Monitor VMs'.

```
Pinging 34.16.169.123 with 32 bytes of data:
Reply from 34.16.169.123: bytes=32 time=80ms TTL=57
Reply from 34.16.169.123: bytes=32 time=73ms TTL=57
Reply from 34.16.169.123: bytes=32 time=72ms TTL=57
Reply from 34.16.169.123: bytes=32 time=72ms TTL=57

Ping statistics for 34.16.169.123:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 72ms, Maximum = 80ms, Average = 74ms
```

2. (35pt) Configure the server and generate a client named "yourMidas_vpn.ovpn" and download it from the server.

```
Linux vpn-301-ajone183.c.psyched-scene-420901.internal 6.1.0-20-cloud-amd64 #1 SMP
PREEMPT_DYNAMIC Debian 6.1.85-1 (2024-04-11) x86_64
```

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.

Last login: Sat Apr 20 02:47:15 2024 from 35.235.243.66

```
ajone183@vpn-301-ajone183:~$ cd openvpn-install/
```

```
ajone183@vpn-301-ajone183:~/openvpn-install$ ls
```

```
LICENSE.txt  README.md  ajone183_vpn_ovpn.ovpn  cyse301.ovpn  openvpn-install.sh
```

```
ajone183@vpn-301-ajone183:~/openvpn-install$ pwd
```

```
/home/ajone183/openvpn-install
```

```
ajone183@vpn-301-ajone183:~/openvpn-install$
```

Transferred 1 item

ajone183_vpn.ovpn No such file

[Retry](#)

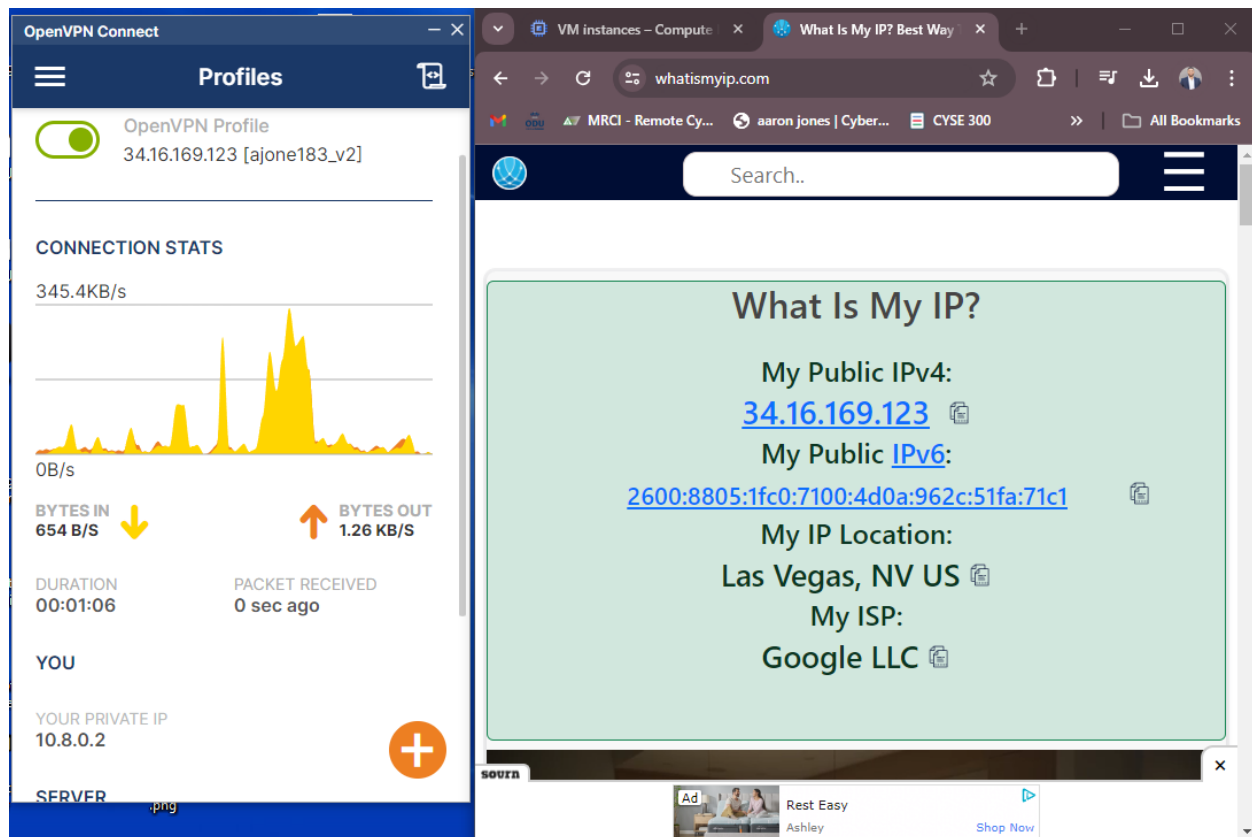
ajone183_vpn_ovp... Directory: /home/ajone183/openvpn-in...

ajone183_vpn_ovpn.ovpn - Notepad

File Edit Format View Help

```
client
dev tun
proto udp
remote 34.16.169.123 8888
resolv-retry infinite
nobind
persist-key
persist-tun
remote-cert-tls server
auth SHA512
ignore-unknown-option block-outside-dns
verb 3
<ca>
-----BEGIN CERTIFICATE-----
```

3. (30 pt) Connect to your VPN server from a laptop or cell phone client and show the public IP address returned from the website ["What is My IP addressLinks to an external site.."](#)



Note: The IP address returned from the website should match the public IP address assigned by GCP. You **SHALL NOT** display your personal IP address from a private network in the lab report (such as your home network) unless you are using a public network (i.e., ODU campus network).