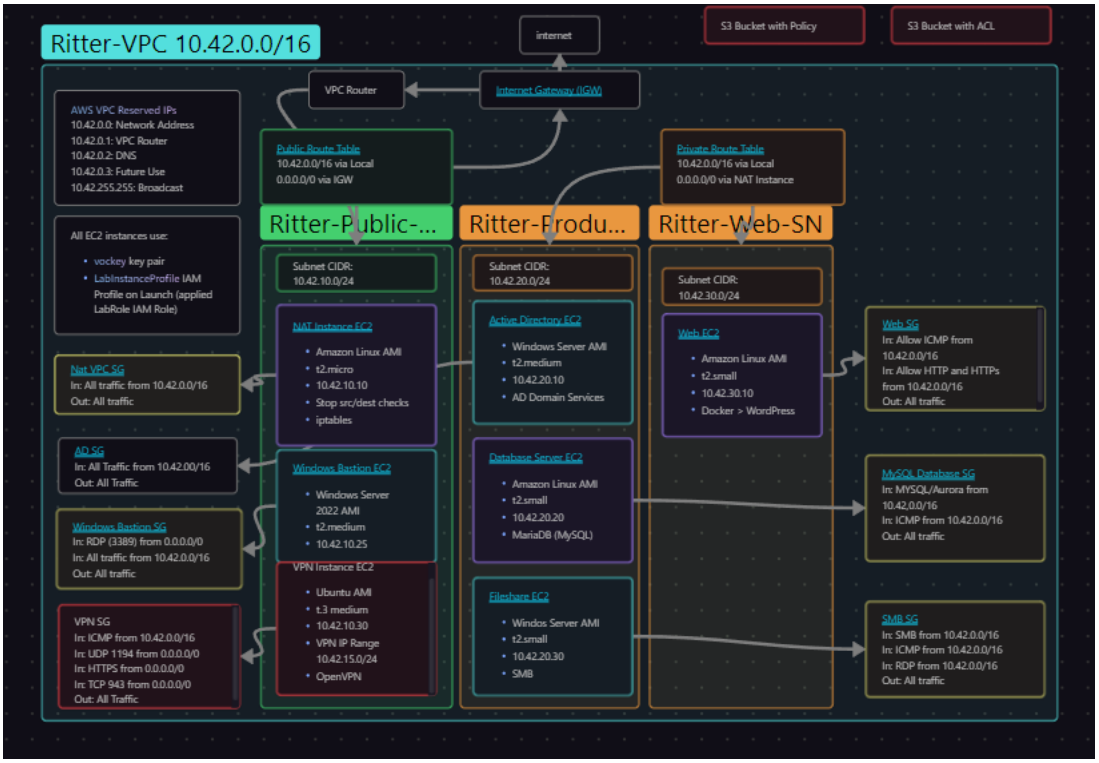
AWS VPC Project

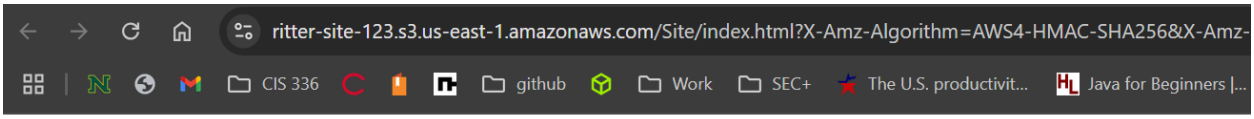
Your Name: Jake Ritter

VPC Network: 10.42.0.0/16

Diagram



S3 Website



Ritter - Home

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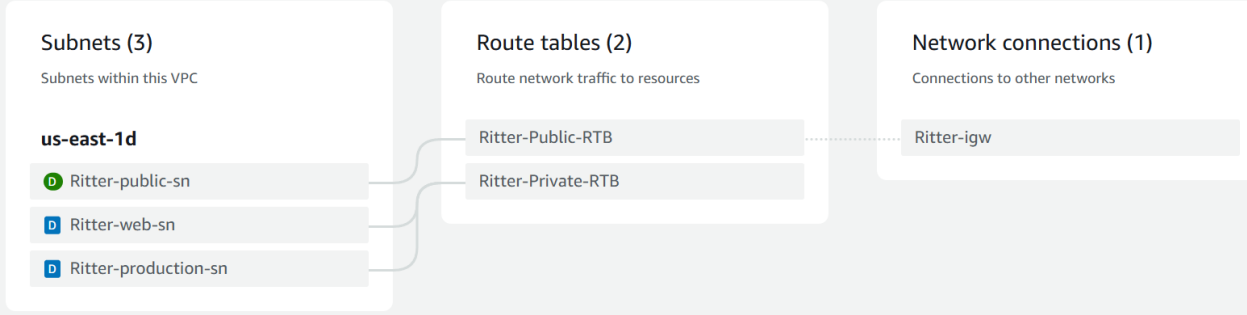
VPC Flow Diagram



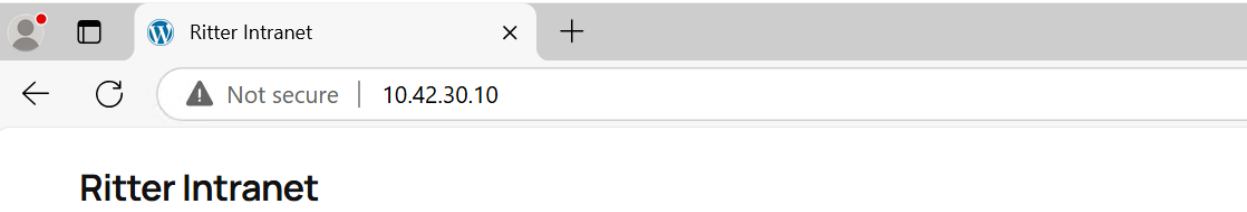
Route

Session ID:
user3149226=jritter@nmu.edu-
xr8cz637p25l8ay2t3j2el7s34

Instance ID: i-05bf1bd7e3535b2e3

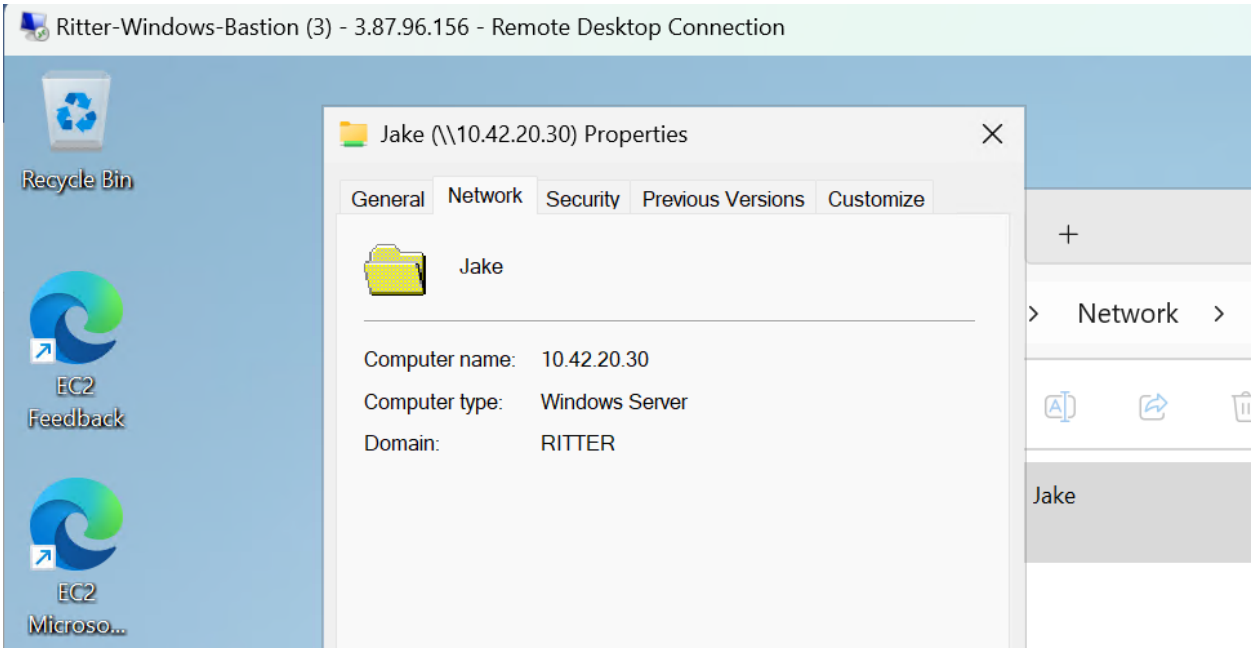
```
sh-5.2$ traceroute google.com
traceroute to google.com (172.253.122.113), 30 hops max, 60 byte packets
 1  10.42.10.10 (10.42.10.10)  10.998 ms  10.973 ms  10.937 ms
 2  100.100.6.64 (100.100.6.64)  10.893 ms 100.100.6.12 (100.100.6.12)  10.870 ms 100.100.32.124 (100.100.32.124)  10.859 ms
 3  * * *
 4  100.100.36.104 (100.100.36.104)  10.733 ms 100.100.34.106 (100.100.34.106)  10.744 ms 100.100.36.98 (100.100.36.98)  10.687 ms
 5  * * *
 6  * * *
 7  142.251.52.62 (142.251.52.62)  19.961 ms 142.251.64.102 (142.251.64.102)  19.918 ms 142.251.70.82 (142.251.70.82)  19.898 ms
 8  192.178.242.26 (192.178.242.26)  19.880 ms 192.178.243.4 (192.178.243.4)  19.862 ms 192.178.248.40 (192.178.248.40)  19.842 ms
 9  216.239.48.101 (216.239.48.101)  19.825 ms 216.239.50.93 (216.239.50.93)  3.914 ms 216.239.63.237 (216.239.63.237)  2.236 ms
10  108.170.233.13 (108.170.233.13)  4.969 ms 142.251.68.99 (142.251.68.99)  3.827 ms  3.901 ms
11  142.251.52.178 (142.251.52.178)  3.770 ms 142.251.52.184 (142.251.52.184)  3.159 ms 142.250.209.106 (142.250.209.106)  17.230 ms
12  172.253.67.63 (172.253.67.63)  16.211 ms 172.253.66.197 (172.253.66.197)  15.579 ms 172.253.66.201 (172.253.66.201)  15.565 ms
13  * * *
14  * * *
15  * * *
16  * * *
17  * * *
18  * * *
19  * * *
20  * * *
21  * * *
22  bh-in-f113.1e100.net (172.253.122.113)  3.022 ms  2.436 ms  2.983 ms
```

WordPress

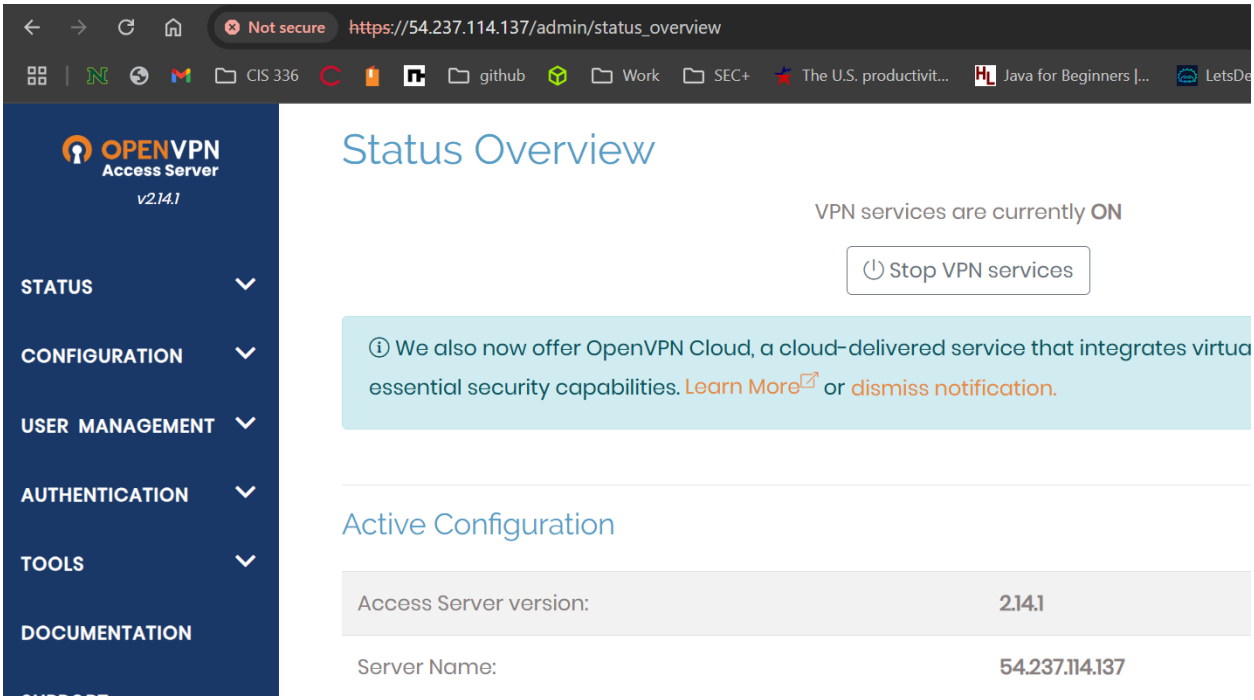


Ritter Intranet

File Share Domain Access



Extra Feature (OpenVPN)



I created an OpenVPN server hosted on a Ubuntu Linux EC2 Instance. The VPN can be used for secure browsing and to access the internal Ritter network. The screenshot above shows the VPN admin GUI.

Reflection

Should companies adopt the cloud? Why?

It depends on the company's needs. For businesses requiring quick deployment and scalable resources, the cloud is often the better choice. However, if a company needs greater control over its network or data, a physical infrastructure may be more suitable.

What were the biggest challenges becoming familiar with the AWS cloud?

The biggest challenge was learning the AWS-specific terminology and mapping it to traditional physical network concepts. For example, understanding that firewalls are called Security Groups in AWS. Additionally, with so many services offered, remembering the purpose of each was difficult in the beginning.

What are some of the AWS cloud strengths?

AWS strengths include its scalability, a pay-as-you-go pricing model, offloading server maintenance to the cloud provider, high availability with global data centers, and a broad range of integrated services that support various business needs.

What do you think you need to learn about more in order to feel more confident administering the cloud?

Something I need to learn more about are logging and monitoring. The AWS course provided some information on this topic but did not go into extreme depth. Logging and monitoring is very important when it comes to cloud security and I plan to dive deeper into this topic on my own time.