

Networking

- Due Sep 17 at 11:59pm
- Points 25
- Questions 15
- Available Sep 10 at 12am - Sep 17 at 11:59pm
- Time Limit None
- Allowed Attempts 3

Instructions

You and a friend start a financial company, which is located in Northern Virginia. Each of you will run an organization: Research and IT. The two organizations need computer systems. You are responsible for the IT systems for the company, so you must decide the strategy. You finally remember what you learn in Cloud Computing class at school and after completing a business case, you decide to go with Cloud Computing instead of On-Premise computing. Here is what you decide and will implement:

1. Use AWS
2. Create a customized VPC with a subnet for each department.
 1. Region: you decide to use the region closest to your office to minimize latency.
 2. Define the VPC CIDR block.
 3. VPC Name: yourlastname-VPC-HW4
 4. Create 2 subnets, one for each of the organization. You expect the company to grow so **each of the subnet** must be able to have **10 hosts** (EC2s).

Here are the configurations of the 2 subnets:

1. For IT department (yours)
 1. Subnet Name: yourlastname-IT
 2. CIDR: define the CIDR block just enough (the smallest block size) to handle the 10 hosts.
 3. You want every EC2 you created:
 1. Has a public IP
 2. AMI: the latest ubuntu
 3. Instance type: t2.micro
 4. To protect from PoD attack, allow ping from your laptop only
 5. for security reasons you only allow ssh from your laptop only
 4. You just started the company so you only need to spin up 1 EC2.
 1. EC2 Name: yourlastname-IT-host1
2. For Research department
 1. Subnet Name: yourlastname-RND

2. CIDR: define the CIDR block just enough (the smallest block size) to handle the 10 hosts.
3. You want every EC2 you created:
 1. has public IP
 2. AMI: the latest ubuntu
 3. Instance type: t2.micro
 4. RND is very critical and you want to protect it so you only allow ssh from your laptop
 5. To avoid PoD (Ping Of Death) attack, you only allow ping **internally** from **all of your IT hosts**.
4. You just start the company so you only need to spin up 1 EC2.
 1. EC2 Name: yourlastname-RND-host1

This quiz was locked Sep 17 at 11:59pm.

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	2 minutes	25 out of 25
LATEST	Attempt 2	2 minutes	25 out of 25
	Attempt 1	11 minutes	18 out of 25

❗ Correct answers are no longer available.

Score for this attempt: 25 out of 25

Submitted Sep 17 at 8:08pm

This attempt took 2 minutes.



Question 1

1 / 1 pts

Which aws region you selected?

- ☒ us-east-1
- ☐ us-east-2
- ☐ us-west-1
- ☐ us-west-2



Question 2

5 / 5 pts

What is the CIDR prefix for each of the subnets? Remember, it must be the smallest block than can handle 10 hosts.

- ☐ /16

☐ /20

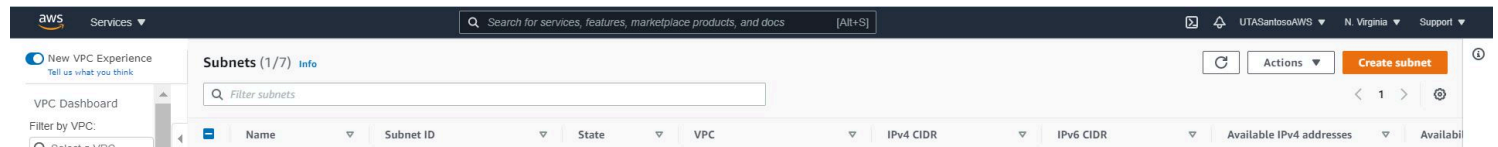
☐ /25

☒ /28


Question 3

5 / 5 pts

Look at the two subnets you created (similar to the example below). How "available IPv4 addresses" do you see?


☐ 5

☐ 10

☒ 11

☐ 16


Question 4

1 / 1 pts

The ping command sent from the IT EC2 to the IT EC2 using the internal IP address is successful.

☒ True

☐ False


Question 5

1 / 1 pts

The ping command sent from the IT EC2 to the RND EC2 using the internal IP address is successful.

☒ True

☐ False


Question 6

1 / 1 pts

The ping command sent from the RND EC2 to the IT EC2 using the internal IP address is successful.

☐ True

☒ False


Question 7

1 / 1 pts

The ping command sent from the RND EC2 to the RND EC2 using the internal IP address is successful.

- ☒ True
☐ False



Question 8

1 / 1 pts

The ping command sent from the IT EC2 to the IT EC2 using the external IP address is successful.

- ☐ True
☒ False



Question 9

1 / 1 pts

The ping command sent from the IT EC2 to the RND EC2 using the external IP address is successful.

- ☐ True
☒ False



Question 10

1 / 1 pts

The ping command sent from the RND EC2 to the IT EC2 using the external IP address is successful.

- ☐ True
☒ False



Question 11

1 / 1 pts

The ping command sent from the RND EC2 to the RND EC2 using the external IP address is successful.

- ☐ True
☒ False



Question 12

1 / 1 pts

The ping command sent from your laptop to the IT EC2 using the external IP address is successful.

- ☒ True
☐ False



Question 13

1 / 1 pts

The ping command sent from your laptop to the RND EC2 using the external IP address is successful.

- ☐ True

☐ False



Question 14

2 / 2 pts

Look at the routes of the route table you created (similar to the below). What should be the Destination for the Target that points to the internet gateway.



- ☐ The internet gateway public IP address
- ☒ 0.0.0.0/0
- ☐ The internet gateway private IP address
- ☐ the subnet IP address block



Question 15

2 / 2 pts

For the same problem, let's say the CIDR block for the IT subnet is 10.0.0.0/28 and for the RND subnet is 10.0.0.16/28. In order to allow ping only from any host in the IT subnet internally, what should be the "Source" for ICMP in the Inbound Rule for an RND EC2 Security Group?

- ☐ 10.0.0.16/28
- ☒ 10.0.0.0/28
- ☐ 0.0.0.0/0
- ☐ 10.0.0.0/32
- ☐ 10.0.16.0/32

Quiz Score: 25 out of 25