

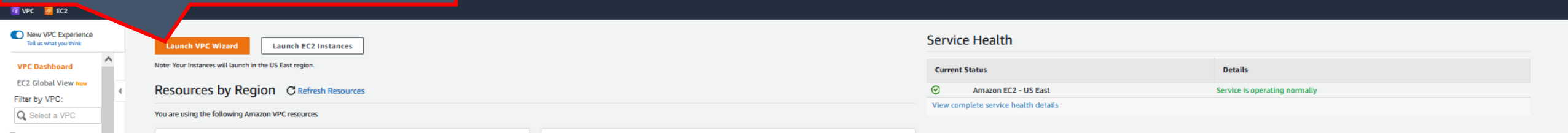
Module 4: VPC Assignment-3

You have been asked to:

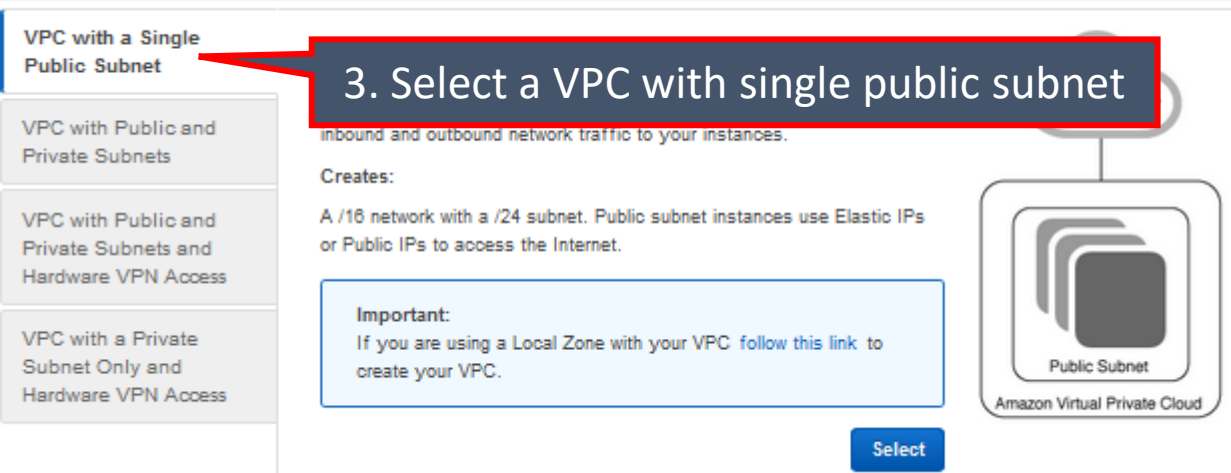
1. Create 2 EC2 instances in any public subnet of any VPC and name them Master and Client
2. Using security groups, make sure that Client instance can only be accessed (SSH) through the Master instance

1. Login into AWS. Select N. Virginia

2. Launch VPC wizard

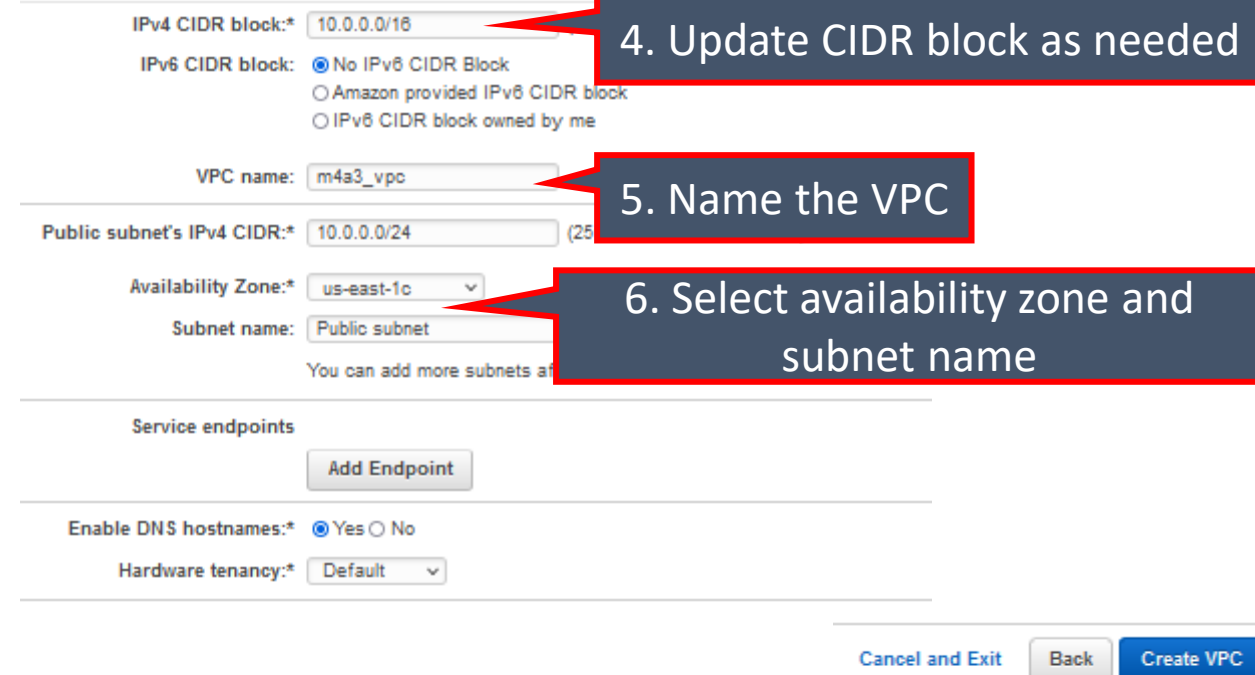


Step 1: Select a VPC Configuration



3. Select a VPC with single public subnet

Step 2: VPC with a Single Public Subnet



4. Update CIDR block as needed

5. Name the VPC

6. Select availability zone and subnet name

7. Create VPC

8. Create 2 EC2 instances – Master and Client

10. Ensure only master instance has public IP

Instances (1/2) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IPv6 IPs	Monitoring	Security group name
<input type="checkbox"/>	Master	i-0e6fb5dabf3ab0423	Running	t2.micro	Initializing	No alarms +	us-east-1c	ec2-3-83-121-162.com...	3.83.121.162	-	-	disabled	Master_ec2_instance_sg
<input type="checkbox"/>	Client	i-0c9b28cacc6ca091a	Running	t2.micro	Initializing	No alarms +	us-east-1c	ec2-3-84-195-191.com...	3.84.195.191	-	-	disabled	client_ec2_instance_sg

11. Ensure each instance has separate security group

Security Groups (1/3) Info

Filter security groups

	Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
<input type="checkbox"/>	-	sg-0643edccff16f4914	default	vpc-0c1c627049b05f9a8	default VPC security gr...	098760042302	1 Permission entry	1 Permission entry
<input checked="" type="checkbox"/>	-	sg-06d70b89d3f1828e8	client_ec2_instance_sg	vpc-0c1c627049b05f9a8	client_ec2_instance_sg...	098760042302	1 Permission entry	1 Permission entry
<input type="checkbox"/>	-	sg-07d8244a7a6f35efb	Master_ec2_instance_sg	vpc-0c1c627049b05f9a8	Master_ec2_instance_s...	098760042302	1 Permission entry	1 Permission entry

Before (12), ensure that the PEM keys are copied into both EC2 instances – Master and Client

sg-06d70b89d3f1828e8 - client_ec2_instance_sg

Details Inbound rules Outbound rules Tags

You can now check network connectivity with Reachability Analyzer Run Reachability Analyzer

Inbound rules (1/1)

Filter security group rules

	Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
<input checked="" type="checkbox"/>	-	sgr-07b8bcffcc224bc19	IPv4	SSH	TCP	22	3.83.121.162/32	Accept incoming SSH only from Maser instance

12. Client sg must allow inbound SSH only from Master instance public IP

Instances (1/4) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check
<input type="checkbox"/>	Master	i-09e888eab9d7555dc	Terminated	t2.micro	-
<input type="checkbox"/>	Client	i-04aa7e444f79fa887	Terminated	t2.micro	-
<input type="checkbox"/>	Master	i-0e6fb5dabf3ab0423	Running	t2.micro	2/2 checks passed
<input checked="" type="checkbox"/>	Client	i-0c9b28cacc6ca091a	Running	t2.micro	2/2 checks passed

Launch Instances
Launch instance from template
Connect

13. Try to connect to client instance. This must fail.

Connect to instance Info

Connect to your instance i-0c9b28cacc6ca091a (Client) using any of these options

EC2 Instance Connect | Session Manager | SSH client | EC2 Serial Console

Instance ID
i-0c9b28cacc6ca091a (Client)

Public IP address
3.84.195.191

User name
ubuntu

Connect using a custom user name, or use the default user name ubuntu for the AMI used to launch the instance.

Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel Connect

There was a problem connecting to your instance

We were unable to connect to your instance. Make sure that your instance is running and accessible.

Retry

Instances (1/4) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check	Alarm
<input type="checkbox"/>	Master	i-09e888eab9d7555dc	Terminated	t2.micro	-	No alarm
<input type="checkbox"/>	Client	i-04aa7e444f79fa887	Terminated	t2.micro	-	No alarm
<input checked="" type="checkbox"/>	Master	i-0e6fb5dabf3ab0423	Running	t2.micro	2/2 checks passed	No alarm
<input type="checkbox"/>	Client	i-0c9b28cacc6ca091a	Running	t2.micro	2/2 checks passed	No alarm

Launch Instances
Launch instance from template
Connect

14. Connect to Master instance

```
ubuntu@ip-10-0-0-230:~$ ssh -i .ssh/hariharan_aws_us_east_1.pem ubuntu@3.84.195.191
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.11.0-1022-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Wed Dec 29 19:18:47 UTC 2021

System load:  0.0               Processes:    99
Usage of /:   18.4% of 7.69GB    Users logged in: 0
Memory usage: 20%              IPv4 address for eth0: 10.0.0.62
Swap usage:   0%

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Wed Dec 29 19:09:20 2021 from 3.83.121.162
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-10-0-0-62:~$
```

15. From Master, open SSH to Client instance. This must Pass