

VPC IMPLEMENTATION

1) VPC DASHBOARD

The screenshot shows the AWS VPC Dashboard. On the left, there's a sidebar with navigation links for Virtual private cloud, Security, and PrivateLink and Lattice. The main area displays 'Resources by Region' for the Asia Pacific region. It includes sections for VPCs, Subnets, Route Tables, Internet Gateways, DHCP option sets, NAT Gateways, Peering connections, Network ACLs, Security Groups, Egress-only Internet Gateways, Customer Gateways, and Virtual Private Gateways. Each section has a 'See all regions' link. On the right, there are 'Service Health' and 'Settings' sections, along with links to VPC Documentation, All VPC Resources, Forums, and Report an issue. A note at the top says 'Note: Your instances will launch in the data Pacific region.'

2) DEFAULT VPC

The screenshot shows the AWS VPC dashboard with the 'Your VPCs' section. It lists one VPC named 'vpc-0fab722922501be15'. The table shows the VPC ID, State (Available), Block Public Access (Off), IPv4 CIDR (172.31.0.0/16), and IPv6 CIDR (—). Below the table, the 'Details' tab is selected for the VPC 'vpc-0fab722922501be15'. The details include: VPC ID (vpc-0fab722922501be15), State (Available), Block Public Access (Off), DNS resolution (Enabled), Main network AD (ad-0fb633d6fbba1cb6), Default VPC (Yes), IPv4 CIDR (172.31.0.0/16), IPv6 CIDR (Network border group), Network Address Usage metrics (Disabled), Route 53 Resolver DNS Firewall rule groups (—), and Owner ID (529088283713).

3) CLICK ON CREATE VPC AND CONFIGURE IT

Create VPC [Info](#)

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create: [Info](#)
Create only the VPC resources or the VPC and other networking resources.

VPC only **VPC and more**

Name tag - optional
Create a tag with a key of 'Name' and a value that you specify.
22BCY10290-SHVANSHKUNTAL-VPC

IPv4 CIDR block: [Info](#)
 IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block
12.0.0.0/25
CIDR block size must be between /26 and /28.

IPv6 CIDR block: [Info](#)
 No IPv6 CIDR block IPAM-allocated IPv6 CIDR block Amazon-provided IPv6 CIDR block IPv6 CIDR owned by me

Tenancy: [Info](#)
Default

4) CUSTOM VPC CREATED

You successfully created vpc-080dec6fa743ecf91 / 22BCY10290-SHVANSHKUNTAL-VPC

[Actions](#)

vpc-080dec6fa743ecf91 / 22BCY10290-SHVANSHKUNTAL-VPC

Details [Info](#)

VPC ID	vpc-080dec6fa743ecf91	State	Available	Block Public Access	<input checked="" type="checkbox"/> Off	DNS hostnames	Disabled
DNS resolution	Enabled	Tenancy	default	DHCP option set	dhcp-04671ca47c51865d	Main route table	rta-d18d7fa6838e1ff91
Main network ACL	acl-0218480384e99%a0	Default VPC	Default VPC	IPv4 CIDR	12.0.0.0/25	IPv6 pool	-
IPv6 CIDR (Network border group)	-	Network Address Usage metrics	Disabled	Route 53 Resolver DNS Firewall rule groups	-	Owner ID	52908033753

Resource map | **DBRs** | **Flow logs** | **Tags** | **Integrations**

Resource map [Info](#)

VPC [Show details](#)
Your AWS virtual network
22BCY10290-SHVANSHKUNTAL-VPC

Subnets (0)
Subnets within this VPC

Route tables (1)
Route egress traffic to resources
rta-d18d7fa6838e1ff91

Network connections
Connections to other networks

[Dashboard](#) [Feedback](#)

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The screenshot shows the AWS VPC console. At the top, there's a search bar and a 'Create VPC' button. Below it, a table lists two VPCs:

Name	VPC ID	State	Block Public Access	IPv4 CIDR	IPv6 CIDR
xx-xxxxxx-xxxxxx-xxxxxx	vpc-06ab7229221be15	Available	Off	172.31.0.0/16	-
22BCY10290-SHIVANSHKUANTAL-VPC	vpc-080dec8fa743ecf91	Available	Off	12.0.0.0/25	-

Below the table, a specific VPC is selected: **vpc-080dec8fa743ecf91 / 22BCY10290-SHIVANSHKUANTAL-VPC**. A detailed view is shown with tabs for Details, Resource map, CDBs, Firewall, Tags, and Integrations. The Details tab displays the following information:

VPC ID	Name	State	Block Public Access	DNS Hostnames
vpc-080dec8fa743ecf91	vpc-080dec8fa743ecf91	Available	Off	Disabled
DNS resolution	Tenancy	DHCP option set	Main route table	
Enabled	Default	dept-04271ca27c51965ab	-	
Main network ACL	Default VPC	IPv4 CIDR	IPv6 pool	
-	No	12.0.0.0/25	-	
IPv6 CIDR (Network border group)	Network Address Usage Metrics	Route 53 Resolver DNS Firewall rule groups	Driver ID	
-	Disabled	-	S25686283733	

5) CLICK ON SUBNETS TO CREATE NEW SUBNETS FOR OUR CUSTOM VPC

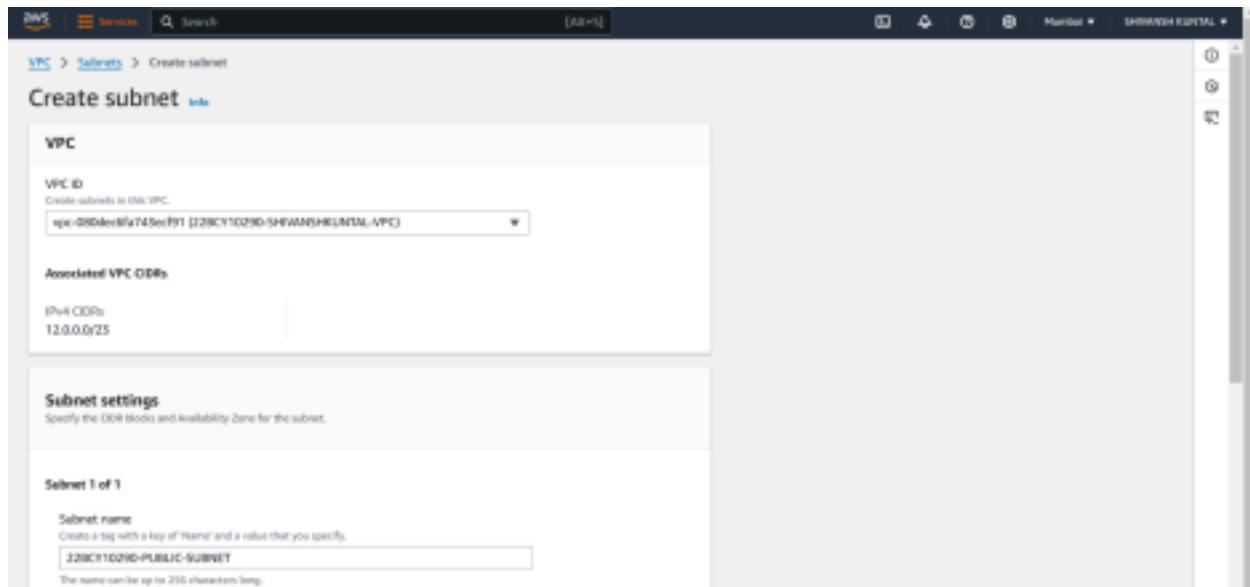
The screenshot shows the AWS VPC dashboard. On the left, a sidebar lists various VPC-related services like EC2 Global View, Filter by VPC, Virtual private cloud, Subnets, Route tables, Internet gateways, Egress-only Internet gateways, DHCP option sets, Elastic IPs, Managed prefix lists, NAT gateways, Peering connections, Security, Network ACLs, Security groups, PrivateLink and Lattice, and Endpoints. The Subnets section is currently selected.

The main area shows a table of three existing subnets:

Name	Subnet ID	State	VPC	Block Public Access
-	subnet-06089595d6de543	Available	vpc-06ab7229221be15	Off
-	subnet-07177051c9a822a	Available	vpc-06ab7229221be15	Off
-	subnet-09763414720fe15d	Available	vpc-06ab7229221be15	Off

A 'Select a subnet' dropdown is open at the bottom of the table.

6) CLICK ON CREATE SUBNET TO CREATE PUBLIC AND PRIVATE SUBNET



7) CONFIGURE PUBLIC AND PRIVATE SUBNET

The screenshot shows the 'Subnet 2 of 2' configuration page. The subnet name is 'J2BCY10290-PRIVATE-SUBNET', the availability zone is 'Asia Pacific (Mumbai) / ap-south-1a', and the IPv4 subnet CIDR block is '12.0.1.0/24'. A tag 'Name' is added with the value 'J2BCY10290-PRIVATE-SUBNET'.

8) SUCCESSFULLY CREATED PUBLIC AND PRIVATE SUBNETS

The screenshot shows the AWS VPC dashboard with two separate sections, each displaying a list of subnets.

Top Section:

- Subnets (2) info
- Subnet ID: subnet-0f8180d833c1aef9, subnet-0c45610eb2c5abc23
- Last updated: less than a minute ago
- Actions: Create subnet

Name	Subnet ID	Status	VPC	Block Public...
22BCY10290-PUBLIC-SUBNET	subnet-0913500b043e21ef9	Available	vpc-0801e1a2743ef91 22BC...	Off
22BCY10290-PRIVATE-SUBNET	subnet-010f10eb2c5abc23	Available	vpc-0801e1a2743ef91 22BC...	Off

Bottom Section:

- Subnets (5) info
- Subnet ID: subnet-0f8180d833c1aef9, subnet-0c45610eb2c5abc23
- Last updated: 1 minute ago
- Actions: Create subnet

Name	Subnet ID	Status	VPC	Block Public...
-	subnet-0f8180d833c1aef9	Available	vpc-0801e1a2743ef91 22BC...	Off
-	subnet-03-570b095e9ed012e	Available	vpc-0801e1a2743ef91 22BC...	Off
-	subnet-08705414729bc15d	Available	vpc-0801e1a2743ef91 22BC...	Off
22BCY10290-PUBLIC-SUBNET	subnet-0913500b043e21ef9	Available	vpc-0801e1a2743ef91 22BC...	Off
22BCY10290-PRIVATE-SUBNET	subnet-0c45610eb2c5abc23	Available	vpc-0801e1a2743ef91 22BC...	Off

9) NOW WE WILL CREATE CUSTOM INTERNET GATEWAY

Internet gateways [1] [Info](#)

Name	Internet gateway ID	State	VPC ID	Owner
-	igw-0f7df2d48e63xxxx3	Attached	vpc-0f8a722902581be15	529084

Select an internet gateway above

10) CREATE IGW

Internet gateway settings

Name tag
Creates a tag with a key of 'Name' and a value that you specify.
228CY1E298-IGW-1

Tags - optional
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
Q Name	Q 228CY1E298-IGW-1 X Remove

Add new tag
You can add 49 more tags.

CANCEL [Create internet gateway](#)

Internet gateways (2) <small>Info</small>					
Name	Internet gateway ID	State	VPC ID	Owner	Actions
-	igw-07e12a48e63aee5	Attached	vpc-0a8722981bc15	529088	Edit Delete
22BCY10290-IGW-1	igw-03eadd42c752962aa	Detached	-	529088	Edit Delete

Select an internet gateway above

11) ATTACH INTERNET GATEWAY

igw-03eadd42c752962aa / 22BCY10290-IGW-1					
Details <small>Info</small>				Actions	
Internet gateway ID igw-03eadd42c752962aa	State Detached	VPC ID -	Owner 529088	Attach to VPC	Detach from VPC
Tags					
Key	Value	Manage tags			
Name	22BCY10290-IGW-1				



12) SUCCESSFULLY ATTACHED OUR IGW



13) CREATE 2 ROUTING TABLES (PUBLIC AND PRIVATE)



**14) EDIT PUBLIC RT BY CLICKING ON ID AND THEN EDIT ROUTES
AND ATTACH IT OUR CREATED IGW**



15) EDIT SUBNET ASSOCIATION



17) CREATE SECOND ROUTING TABLE (PRIVATE)



18) EDIT ITS SUBNET ASSOCIATION



19) CREATE NAT GATEWAY



20) NOW EDIT ROUTES OF PRIVATE RT AND ATTACH NAT GATEWAY IN ROUTES



21) NOW CREATE EC2 INSTANCES (PUBLIC SERVER AND PRIVATE SERVER)





22) SUCCESSFULLY CREATED PUBLIC SERVER



23) CREATE PRIVATE SERVER





24) SUCCESSFULLY CREATED PRIVATE SERVER



25) CREATED 2 EC2 INSTANCES



26) NOW CONNECT TO PUBLIC SERVER



NOTE - COULD NOT ABLE TO CONNECT TO PUBLIC SERVER

27) NOW DELETE ALL THE RESOURCES WE CREATED IN THIS EXPERIMENT



A)



B)



C)



D)
E)



F)



G)

