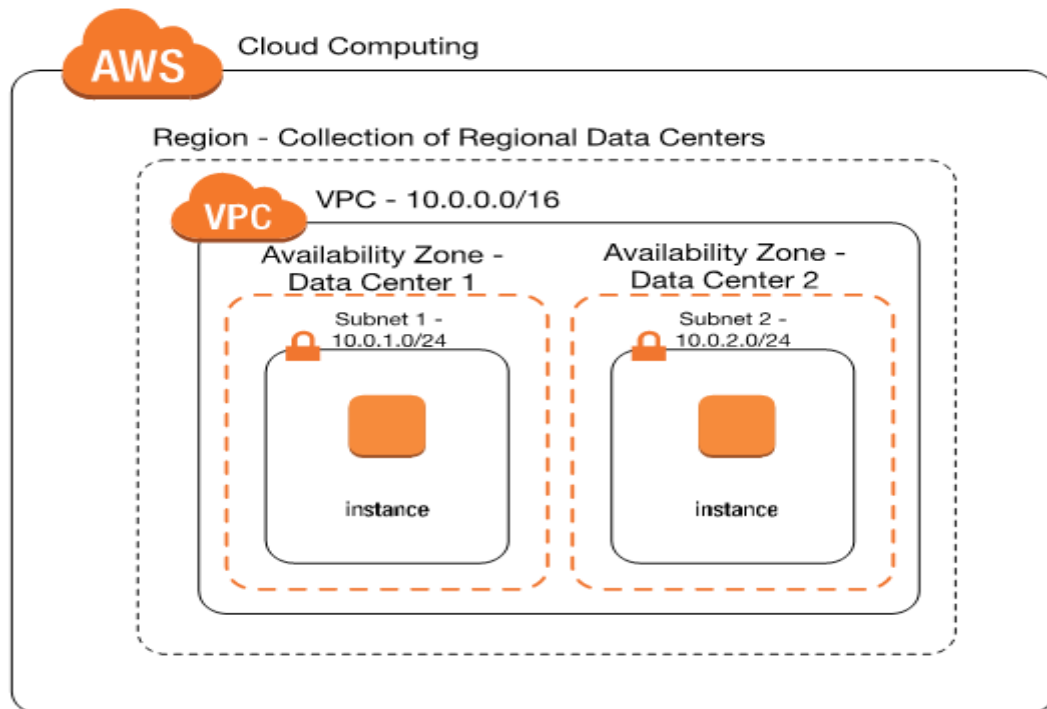


Amazon VPC(Virtual Private Cloud)

VPC:-Amazon Virtual Private Cloud (Amazon VPC) enables you to launch AWS resources into a virtual network that you've defined. A VPC is a virtual private cloud that allows us to create a logical unit of the network where the hardware and resources are managed by the vendor, or the service provides. As users, we are responsible for the configuration and logical setup of the network. A VPC can only be defined within a single region, each VPC can have a number of subnets.

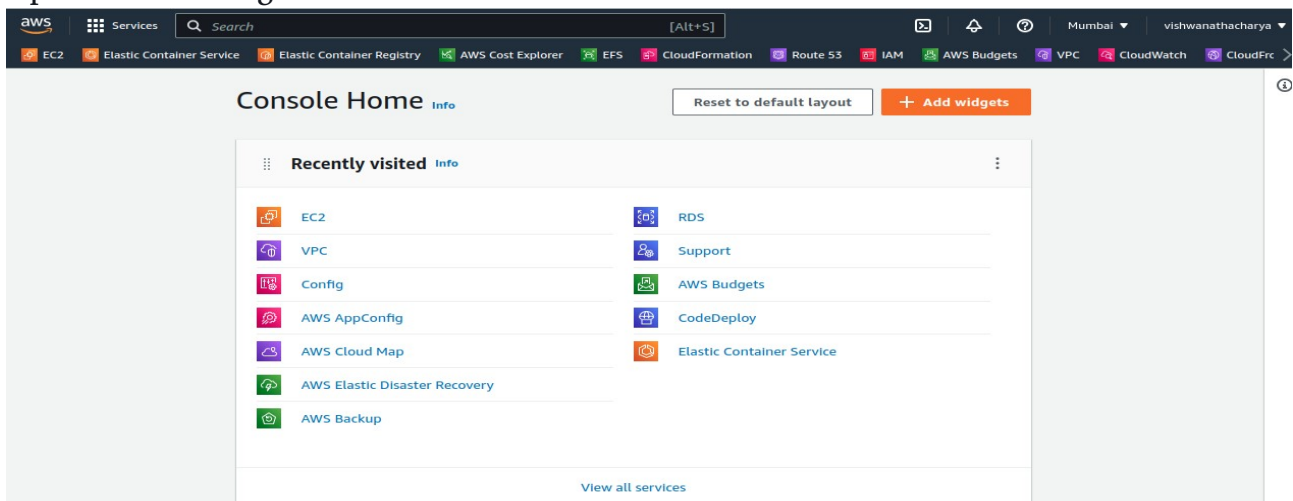
A **VPC** is a virtual network that closely resembles a traditional network that you'd operate in your own data center.



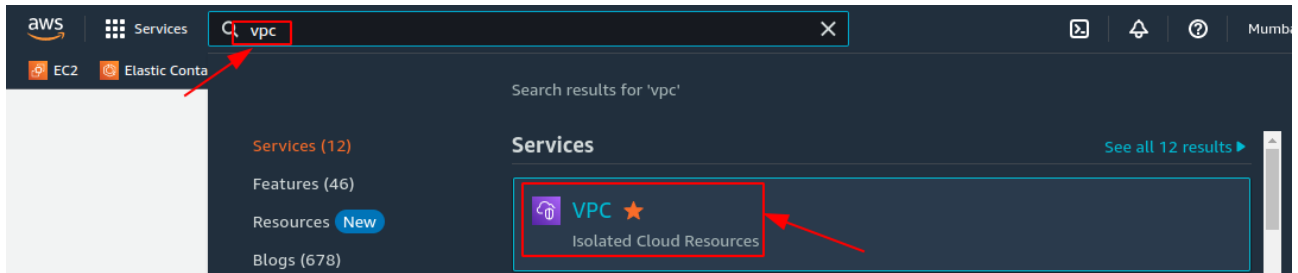
Subnet:-Subnets are used to provide granularity inside the VPC.
After you create a VPC, you can add subnets.

Create VPC

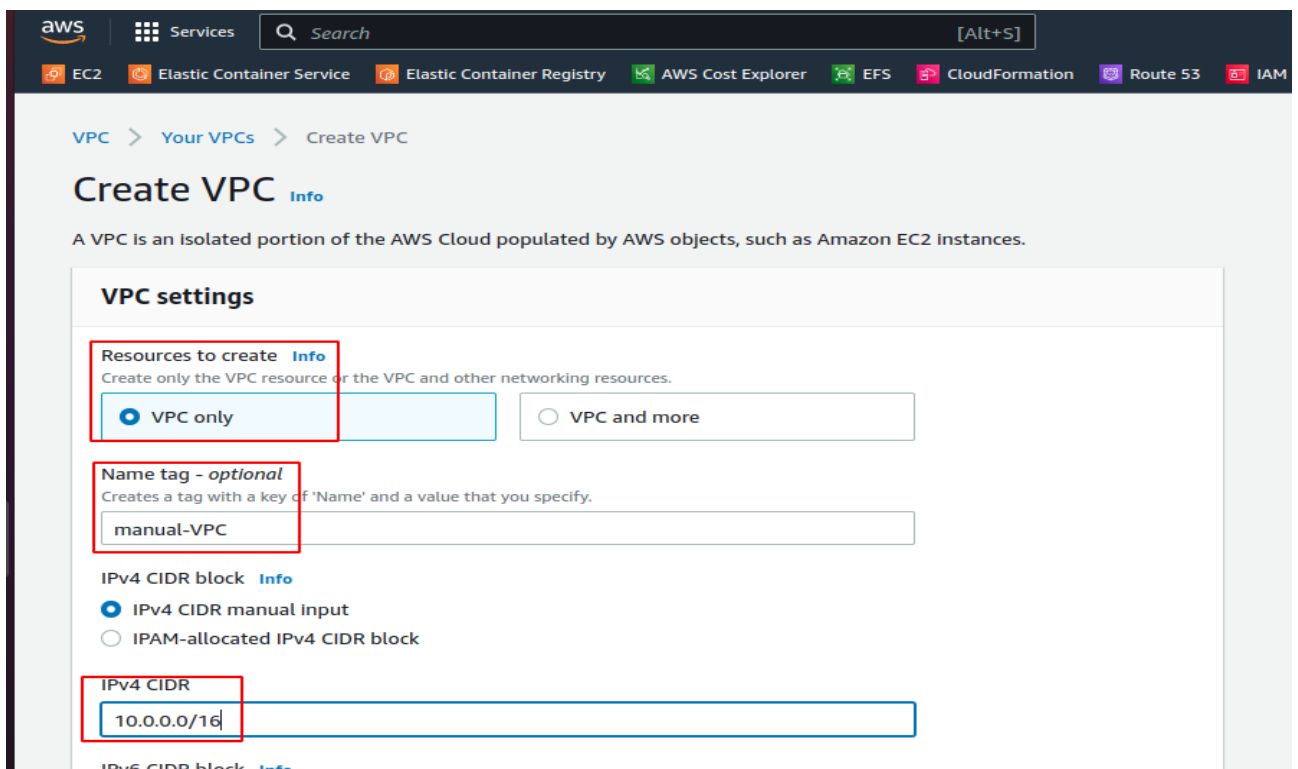
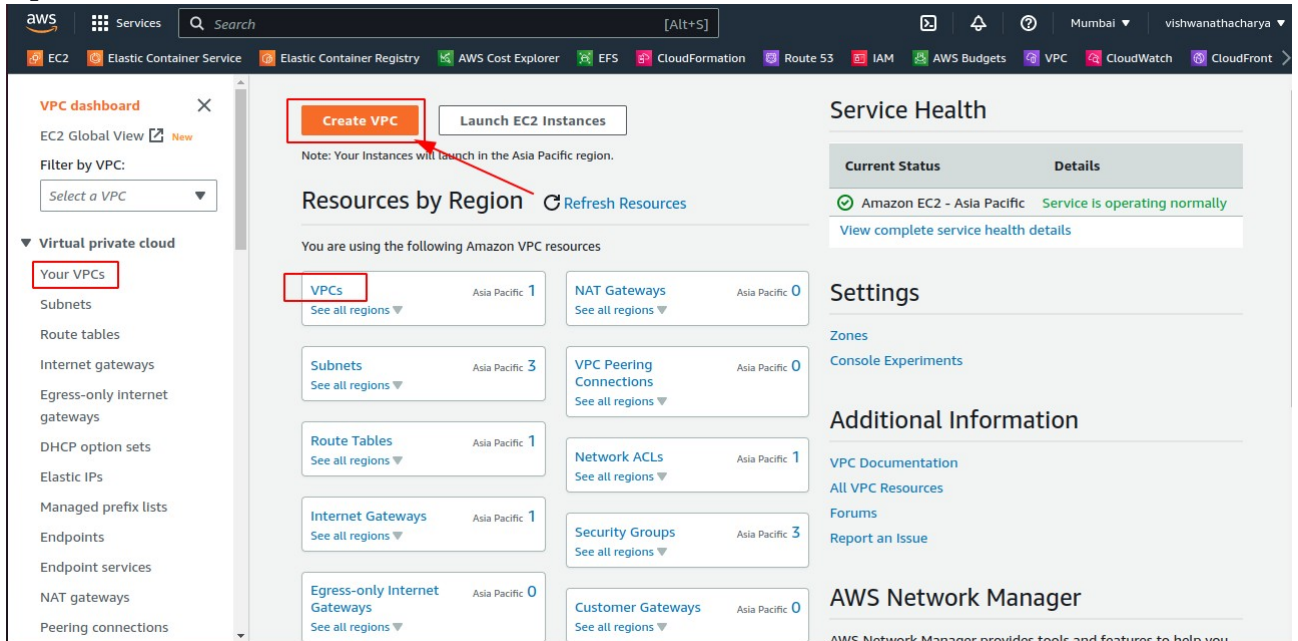
Open AWS Management Console



Search VPC Resource



Open it



Ipv4 CIDR Classless Inter-Domain Routing (CIDR) block

10.0.0.0/16

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

Tags

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** [Remove](#)

[Add new tag](#)

You can add 49 more tags.

[Cancel](#) [Create VPC](#)

VPC dashboard [×](#)

EC2 Global View [New](#)

Filter by VPC: [Select a VPC](#)

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

You successfully created vpc-0d730ce59fd034d31 / manual-VPC

VPC > Your VPCs > vpc-0d730ce59fd034d31

vpc-0d730ce59fd034d31 / manual-VPC [Actions](#)

Details [Info](#)

VPC ID	State	DNS hostnames	DNS resolution
vpc-0d730ce59fd034d31	Available	Disabled	Enabled
Tenancy	DHCP option set	Main route table	Main network ACL
Default	dopt-0a36fb1d4c899071c	rtb-0496c7d1b049cb386	acl-03e3fd7ea9f1622ba
Default VPC	IPv4 CIDR	IPv6 pool	IPv6 CIDR (Network border group)
No	10.0.0.0/16	-	-
Network Address Usage metrics	Route 53 Resolver DNS Firewall rule groups	Owner ID	
Disabled	-	307378480601	

Subnet:-A subnet is a range of IP addresses in your VPC. A subnet must reside in a single Availability Zone. After you add subnets, you can deploy AWS resources in your VPC.

Create Subnet

Subnets (3) [Info](#) [Actions](#) [Create subnet](#)

<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR
<input type="checkbox"/>	-	subnet-0d3096d272737704e	Available	vpc-0721af0fcab5534c3	172.31.32.0/20
<input type="checkbox"/>	-	subnet-07b96d03ef08f15d9	Available	vpc-0721af0fcab5534c3	172.31.0.0/20
<input type="checkbox"/>	-	subnet-03caa1b07a9f95292	Available	vpc-0721af0fcab5534c3	172.31.16.0/20

Select a subnet

VPC > Subnets > Create subnet

Create subnet [Info](#)

VPC

VPC ID
Create subnets in this VPC.

vpc-0d730ce59fd034d31 (manual-VPC) ▼

Associated VPC CIDRs

IPv4 CIDRs

10.0.0.0/16

Availability Zones :-Availability Zones are distinct locations within an AWS Region that are engineered to be isolated from failures in other Availability Zones. They provide inexpensive, low-latency network connectivity to other Availability Zones in the same AWS Region.Each region is completely independent.

Subnet 1 of 2

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

Manual-VPC-Subnet-A

The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

Asia Pacific (Mumbai) / ap-south-1a ▼

IPv4 CIDR block [Info](#)

10.0.0.0/24 ✕

▼ Tags - optional

Key

Q Name ✕

Value - optional

Q Manual-VPC-Subnet-A ✕

Remove

Add new tag

You can add 49 more tags.

Subnet 2 of 2

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

Manual-VPC-Subnet-A

The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

Asia Pacific (Mumbai) / ap-south-1b ▼

IPv4 CIDR block [Info](#)

10.0.1.0/24 ✕

▼ Tags - optional

Key

Q Name ✕

Value - optional

Q Manual-VPC-Subnet-A ✕

Remove

Add new tag

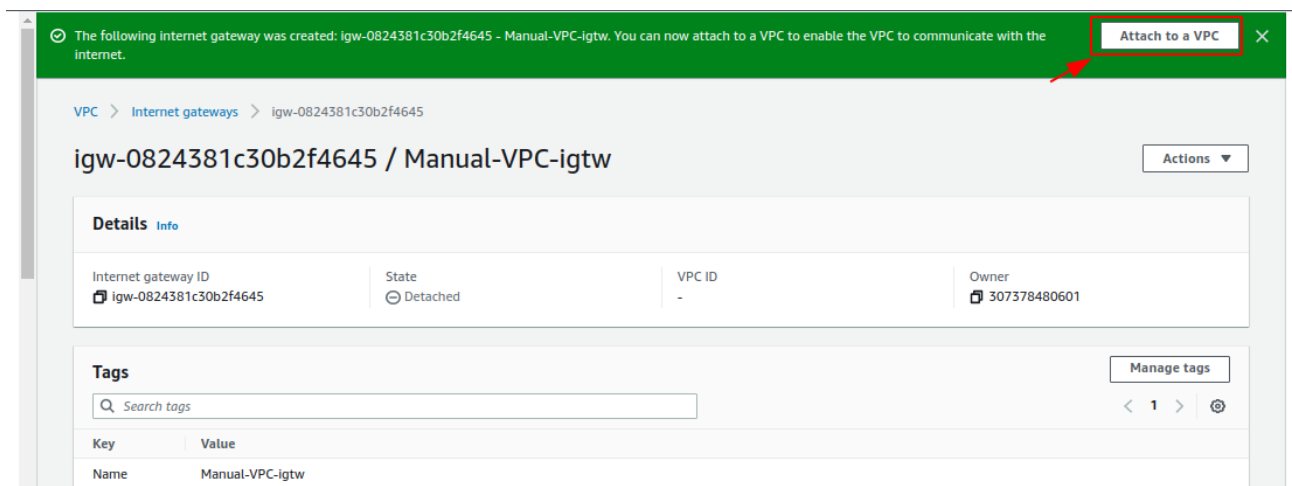
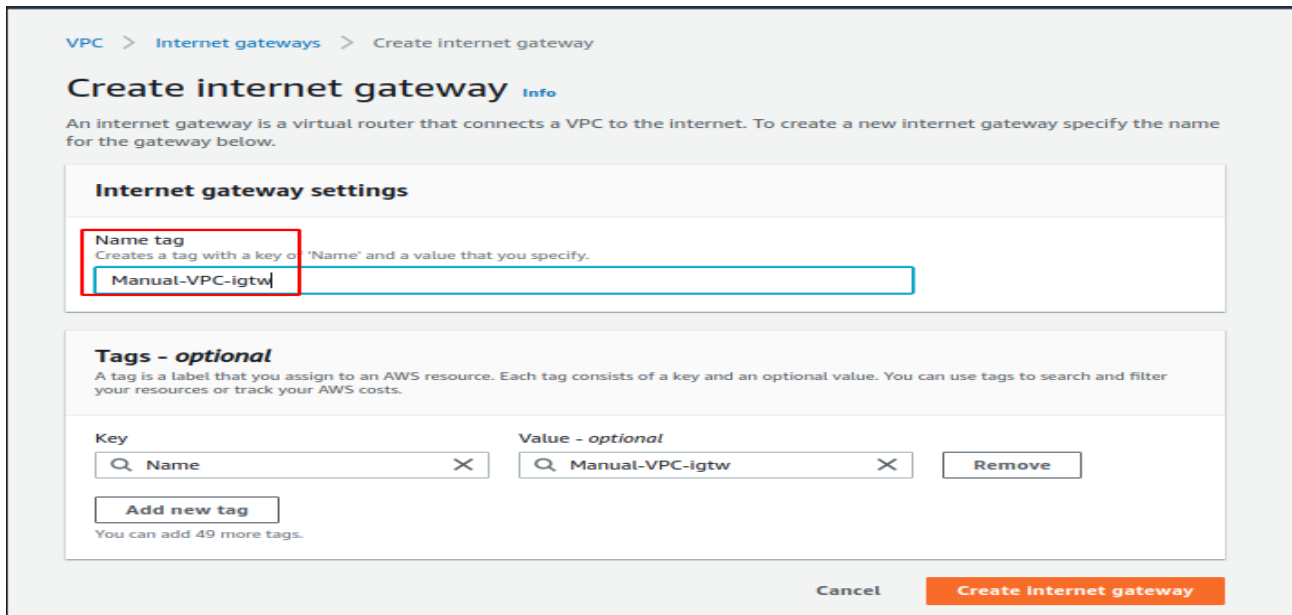
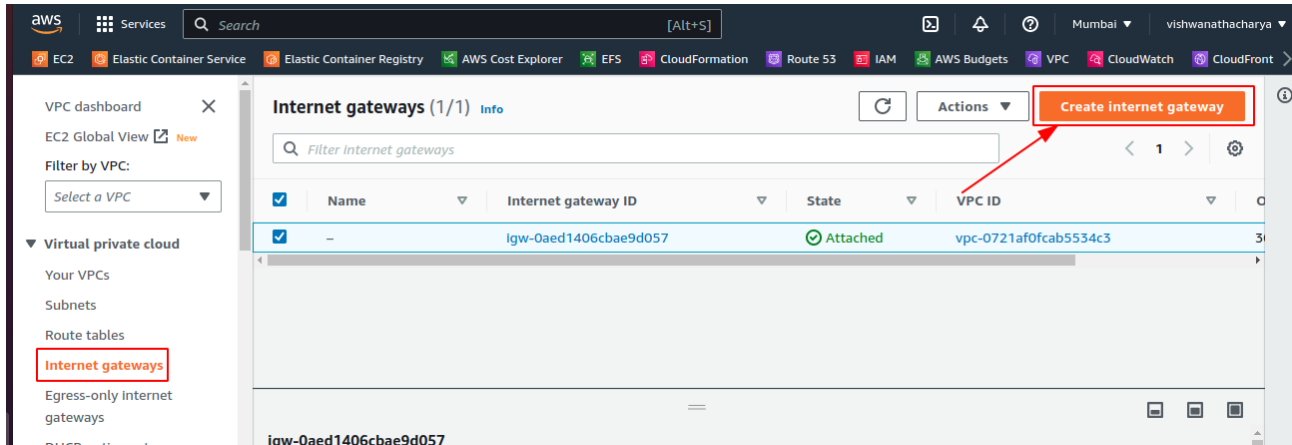
You can add 49 more tags.

Remove

Click **Create Subnet**

Internet Gateway:-An internet gateway is a horizontally scaled, redundant, and highly available VPC component that allows communication between your VPC and the internet.

Create Internet Gateway



VPC > Internet gateways > Attach to VPC (igw-0824381c30b2f4645)

Attach to VPC (igw-0824381c30b2f4645) [Info](#)

VPC

Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs

Attach the internet gateway to this VPC.

► AWS Command Line Interface command

Cancel Attach Internet gateway

Internet gateway igw-0824381c30b2f4645 successfully attached to vpc-0d730ce59fd034d31

VPC > Internet gateways > igw-0824381c30b2f4645

igw-0824381c30b2f4645 / Manual-VPC-igtw

Details [Info](#)

Internet gateway ID	State	VPC ID	Owner
igw-0824381c30b2f4645	Attached	vpc-0d730ce59fd034d31 manual-VPC	307378480601

Tags

Key	Value
Name	Manual-VPC-igtw

Manage tags

< 1 >

Create Route Table

aws Services Search [Alt+S]

EC2 Elastic Container Service Elastic Container Registry AWS Cost Explorer EFS CloudFormation Route 53 IAM AWS Budgets VPC CloudWatch CloudFront

VPC dashboard EC2 Global View [New](#)

Filter by VPC: [Select a VPC](#)

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Internet gateways

Egress-only internet

Route tables (2) [Info](#)

Create route table

	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC
<input type="checkbox"/>	-	rtb-0bb073a91c31d5e31	-	-	Yes	vpc-0721
<input type="checkbox"/>	-	rtb-0496c7d1b049cb386	-	-	Yes	vpc-0d73

VPC > Route tables > Create route table

Create route table [Info](#)

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - optional

Create a tag with a key of "Name" and a value that you specify.

VPC

The VPC to use for this route table.

Tags

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.

Remove

Add new tag

You can add 49 more tags.

Cancel Create route table

aws Services Search [Alt+S]

EC2 Elastic Container Service Elastic Container Registry AWS Cost Explorer EFS CloudFormation Route 53 IAM AWS Budgets VPC CloudWatch CloudFront Certificate Manager Elastic Beanstalk

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Endpoint services
NAT gateways
Peering connections

Security
Network ACLs
Security groups

Network Analysis
Reachability Analyzer

Route table rtb-05a74f2d7fdc4306 | Manual-VPC- route was created successfully.

VPC > Route tables > rtb-05a74f2d7fdc4306

rtb-05a74f2d7fdc4306 / Manual-VPC- route

You can now check network connectivity with Reachability Analyzer [Run Reachability Analyzer](#)

Details Info

Route table ID rtb-05a74f2d7fdc4306	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-0d730ce59fd034d31 manual-VPC	Owner ID 307378480601		

Routes Subnet associations Edge associations Route propagation Tags

Routes (1)

Filter routes Both

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No

Edit routes

aws Services Search [Alt+S]

EC2 Elastic Container Service Elastic Container Registry AWS Cost Explorer EFS CloudFormation Route 53 IAM AWS Budgets VPC CloudWatch CloudFront Certificate Manager Elastic Beanstalk

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Security
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Security groups

Updated routes for rtb-05a74f2d7fdc4306 / Manual-VPC- route successfully

Details

You can now check network connectivity with Reachability Analyzer [Run Reachability Analyzer](#)

Details Info

Route table ID rtb-05a74f2d7fdc4306	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-0d730ce59fd034d31 manual-VPC	Owner ID 307378480601		

Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Filter routes Both

Destination	Target	Status	Propagated
0.0.0.0/0	igw-0824381c30b2f4645	Active	No
10.0.0.0/16	local	Active	No

Edit routes

aws Services Search [Alt+S]

EC2 Elastic Container Service Elastic Container Registry AWS Cost Explorer EFS CloudFormation Route 53 IAM AWS Budgets VPC CloudWatch CloudFront Certificate Manager Elastic Beanstalk

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Network Analysis
Reachability Analyzer

Route tables (1/2) Info

Filter route tables

	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	-	rtb-0bb073a91c31d5e31	3 subnets	-	Yes	vpc-0721af0fcab5534c3	307378480601
<input checked="" type="checkbox"/>	Manual-VPC- route	rtb-05a74f2d7fdc4306	-	-	Yes	vpc-0d730ce59fd034d31 ma...	307378480601

rtb-05a74f2d7fdc4306 / Manual-VPC- route

Details Routes Subnet associations Edge associations Route propagation Tags

Explicit subnet associations (0)

Find subnet association

Subnet ID	IPv4 CIDR	IPv6 CIDR
No subnet associations		

You do not have any subnet associations.

Subnets without explicit associations (2)

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Edit subnet associations

VPC > Route tables > rtb-05a74f2d7fdc4306 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/2)

Q Filter subnet associations

< 1 > ⌛

<input checked="" type="checkbox"/>	Name ▾	Subnet ID ▾	IPv4 CIDR ▾	IPv6 CIDR ▾	Route table ID ▾
<input checked="" type="checkbox"/>	Manual-VPC-Subnet-A	subnet-0bc3ba1374f2bb7a9	10.0.1.0/24	–	Main (rtb-05a74f2d7fdc4306 / Manual-VPC- route)
<input checked="" type="checkbox"/>	Manual-VPC-Subnet-A	subnet-0279e534a5d118f78	10.0.0.0/24	–	Main (rtb-05a74f2d7fdc4306 / Manual-VPC- route)

Selected subnets

subnet-0bc3ba1374f2bb7a9 / Manual-VPC-Subnet-A X

subnet-0279e534a5d118f78 / Manual-VPC-Subnet-A X

Cancel

Save associations

IF YOU USE DEFAULT VPC SG SO PLEASE OPEN PORT 22 FORT SSH

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