

VPC TASK -01

1) Create VPC with 2 private and 2 public subnets.

Go to the VPC Dashboard

-In the search bar, type "VPC" and go to the VPC Dashboard.

-Click "Create VPC"

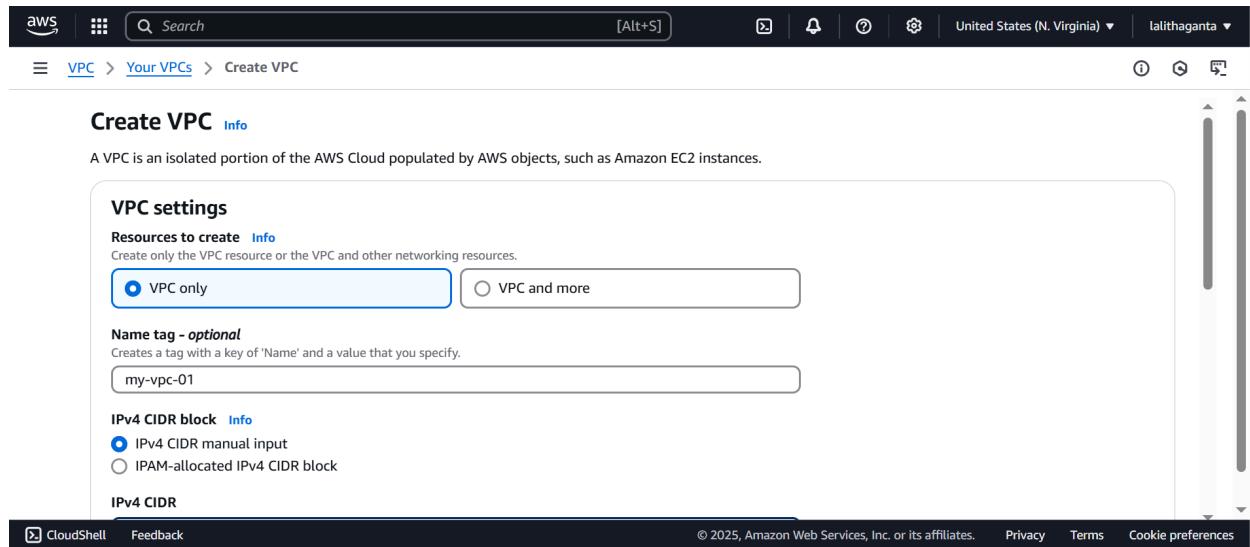
- Name : My-VPC-01

- IPv4 CIDR block: 10.0.0.0/16

-Create vpc

Create public subnet 1 and public subnet 2

Create private subnet 1 and private subnet 2



us-east-1.console.aws.amazon.com/vpcconsole/home#region=us-east-1#CreateVpc:createMode=vpcOnly

aws Jira Console Home | Console Home | eu... Instance details | EC2 | us-east-1 OpenAI Meet - Daily Syncup Call - 12 Conditional Statements in Bash Script Untitled document - Google Docs GitHub aws

Search [Alt+S] United States (N. Virginia) lalithaganta

VPC > Your VPCs > Create VPC

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

 Name

Value - optional

 my-vpc-01Remove tagAdd tag

You can add 49 more tags

CancelPreview codeCreate VPC

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws Search [Alt+S] United States (N. Virginia) lalithaganta

VPC > Subnets > Create subnet

Create subnet Info

VPC

VPC ID

Create subnets in this VPC.

 vpc-0c961cc15f84796f1 (my-vpc-01)

Associated VPC CIDRs

IPv4 CIDRs
10.0.0.0/16

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

CloudShell Feedback © 2025, Amazon Web Services, Inc. or Its affiliates. Privacy Terms Cookie preferences

Type here to search

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

Subnets (7) Info

Last updated 1 minute ago

Actions | Create subnet

Name	Subnet ID	State	VPC
-	subnet-0641467df02e43e0b	Available	vpc-0d01126ec14aaf405
-	subnet-08083b22cbccfec61	Available	vpc-0d01126ec14aaf405
-	subnet-0fd8d9c5b705dfb57	Available	vpc-0d01126ec14aaf405
-	subnet-0942eb7ced07c7de8	Available	vpc-0d01126ec14aaf405
public subnet-1	subnet-09dc6d1676a3c13b5	Available	vpc-0c961cc15f84796f1 r
-	subnet-0d219b4050d40b77b	Available	vpc-0d01126ec14aaf405
-	subnet-0ab185d4ea3233792	Available	vpc-0d01126ec14aaf405

Filter by VPC | Subnets | Route tables | Internet gateways | Egress-only internet gateways | Carrier gateways | DHCP option sets | Elastic IPs | Managed prefix lists | CloudShell | Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC > Subnets > Create subnet

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.
vpc-0c961cc15f84796f1 (my-vpc-01)

Associated VPC CIDRs

IPv4 CIDRs
10.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Type here to search

aws | Search [Alt+S] | United States (N. Virginia) | lalithaganta

☰ VPC > Subnets > Create subnet

Subnet 1 of 1

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

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.

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences 39°C ENG 17:1

aws | Search [Alt+S] | United States (N. Virginia) | lalithaganta

☰ VPC > Subnets > Create subnet

Create subnet [Info](#)

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs
10.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

aws | Search [Alt+S] | United States (N. Virginia) | lalithaganta

VPC > Subnets > Create subnet

Subnet I or I

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

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.

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 65,536 IPs
< > ^ v

▼ Tags - optional

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws | Search [Alt+S] | United States (N. Virginia) | lalithaganta

VPC > Subnets > Create subnet

IPv4 subnet CIDR block
 256 IPs
< > ^ v

▼ Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="private subnet 1"/> Remove

[Add new tag](#)
You can add 49 more tags.
[Remove](#)

[Add new subnet](#)

Cancel [Create subnet](#)

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws | Search [Alt+S] | United States (N. Virginia) | lalithaganta

VPC > Subnets > Create subnet

Create subnet [Info](#)

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs
10.0.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

IPv4 subnet CIDR block
10.0.3.0/24 256 IPs

▼ Tags - optional
 Key Name Value - optional
 private subnet 2
 Add new tag Remove
 You can add 49 more tags.
 Remove
 Add new subnet

Create subnet

VPC dashboard Subnets (10) Info Last updated 2 minutes ago Actions Create subnet

Name	Subnet ID	State	VPC
-	subnet-08083b22cbccfec61	Available	vpc-0d01126ec14aaf40
-	subnet-0fd8d9c5b705dfb57	Available	vpc-0d01126ec14aaf40
-	subnet-0942eb7ced07c7de8	Available	vpc-0d01126ec14aaf40
public subnet-1	subnet-09dc6d1676a3c13b5	Available	vpc-0c961cc15f84796f1
-	subnet-0d219b4050d40b77b	Available	vpc-0d01126ec14aaf40
public subnet 2	subnet-0638172c046eaeedb	Available	vpc-0c961cc15f84796f1
-	subnet-0ab185d4ea3233792	Available	vpc-0d01126ec14aaf40
private subnet 1	subnet-0ccb450350f7d23	Available	vpc-0c961cc15f84796f1
private subnet 2	subnet-0921a595f8c60a895	Available	vpc-0c961cc15f84796f1

2) Enable DNS Hostname in VPC

Log in to the AWS Management Console

Go to <https://console.aws.amazon.com/>

and sign in. Navigate to the VPC Dashboard

In the search bar at the top, type VPC

and select VPC

Select Your VPC On the left-hand side, click

Select the VPC you created (e.g.,

MyVPC

).

With your VPC selected, click Actions > Edit VPC settings
Enable DNS Hostnames
Set DNS Hostnames to Yes (enabled).
Ensure DNS Resolution is also enabled (it typically is by default).

The screenshot shows the AWS VPC dashboard. On the left, there's a sidebar with 'Virtual private cloud' and 'Your VPCs' selected. The main area displays 'Your VPCs (1/2)' with one item listed: 'my-vpc-01'. A context menu is open over this item, listing several actions: 'Create default VPC', 'Create flow log', 'Edit VPC settings' (this option is highlighted with a blue border), 'Edit CIDRs', 'Manage middlebox routes', 'Manage tags', and 'Delete VPC'. The 'Edit VPC settings' option is described as being enabled.

The screenshot shows the 'Edit VPC settings' page for the VPC 'my-vpc-01'. The page has three main sections: 'VPC details', 'DHCP settings', and 'DNS settings'.
VPC details: VPC ID: [vpc-0c961cc15f84796f1](#), Name: [my-vpc-01](#).
DHCP settings: DHCP option set: [dopt-07fb2e1a55189932c](#).
DNS settings: Enable DNS resolution:

The screenshot shows the 'Edit VPC settings' page for a specific VPC. It includes sections for 'DHCP settings', 'DNS settings', and 'Network Address Usage metrics settings'. In the 'DHCP settings' section, a dropdown menu is open, showing 'dopt-07fb2e1a55189932c'. In the 'DNS settings' section, two checkboxes are checked: 'Enable DNS resolution' and 'Enable DNS hostnames'. In the 'Network Address Usage metrics settings' section, one checkbox is checked: 'Enable Network Address Usage metrics'. At the bottom right, there are 'Cancel' and 'Save' buttons.

3) Enable Auto Assign Public ip in 2 public subnets

Open the VPC Dashboard and click on VPC under Services.

Click on "Subnets" On the left-hand menu, click Subnets

Select the First Public Subnet

Click the checkbox next to your first public subnet (e.g., Public-Subnet-1).

Click Actions > Edit subnet settings

Enable Auto-Assign Public IP Under Auto-assign public IPv4 address

check the box Enable auto-assign public IPv4

The screenshot shows the 'Subnets (1/10)' list in the VPC dashboard. A subnet named 'public subnet-1' is selected, indicated by a blue border around its row. A context menu is open over this subnet, listing several actions: 'View details', 'Create flow log', 'Edit subnet settings' (which is highlighted with a blue border), 'Edit IPv6 CIDRs', 'Edit network ACL association', 'Edit route table association', 'Edit CIDR reservations', 'Share subnet', 'Manage tags', and 'Delete subnet'. The 'Edit subnet settings' option is currently selected. The VPC dashboard sidebar on the left lists various services like EC2 Global View, Virtual private cloud, Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, CloudShell, and Feedback.

The screenshot shows the AWS VPC Subnet settings page. At the top, there's a navigation bar with the AWS logo, a search bar, and various icons. Below it, the breadcrumb trail shows: VPC > Subnets > subnet-09dc6d1676a3c13b5 > Edit subnet settings. On the right, there are user profile and settings icons.

Edit subnet settings [Info](#)

Subnet

Subnet ID	subnet-09dc6d1676a3c13b5
Name	public subnet-1

Auto-assign IP settings [Info](#)
Enable AWS to automatically assign a public IPv4 or IPv6 address to a new primary network interface for an instance in this subnet.

Enable auto-assign public IPv4 address [Info](#)

Enable auto-assign customer-owned IPv4 address [Info](#)
Option disabled because no customer owned pools found.

Resource-based name (RBN) settings [Info](#)
Specify the hostname type for EC2 instances in this subnet and optional RBN DNS query settings.

4) Add 2 private subnets in private route table

Go to the VPC Dashboard Open "Route Tables"

In the left-hand menu, click Route Tables

Select Your Private Route Table

Click the checkbox next to it. Associate Subnets

With the route table selected, scroll down and click the "Subnet associations" tab. Click Edit subnet associations

In the list, check the boxes for your two private subnets (e.g., Private-Subnet-1

and Private-Subnet-2).

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.

my route table-01

VPC
The VPC to use for this route table.

vpc-0c961cc15f84796f1 (my-vpc-01)

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
Q Name	X my route table-01

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.

private route-01

VPC
The VPC to use for this route table.

vpc-0c961cc15f84796f1 (my-vpc-01)

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
Q Name	X private route-01

Subnets (2/10) Info

Last updated less than a minute ago

Actions Actions Create subnet

Name	Subnet ID	State	VPC
-	subnet-08083b22bccfec61	Available	vpc-0d01126ec14aaf40
<input checked="" type="checkbox"/> private subnet 2	subnet-0921a595f8c60a895	Available	vpc-0c961cc15f84796f1
-	subnet-0fd8d9c5b705dfb57	Available	vpc-0d01126ec14aaf40
-	subnet-0942eb7ced07c7de8	Available	vpc-0d01126ec14aaf40
public subnet-1	subnet-09dc6d1676a3c13b5	Available	vpc-0c961cc15f84796f1
-	subnet-0d219b4050d40b77b	Available	vpc-0d01126ec14aaf40
<input checked="" type="checkbox"/> private subnet 1	subnet-00ccbdb450350f7d23	Available	vpc-0c961cc15f84796f1
public subnet 2	subnet-0638172c046eaeeedb	Available	vpc-0c961cc15f84796f1
-	subnet-0ab185d4ea3233792	Available	vpc-0d01126ec14aaf40

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Route tables (1/3) Info

Name	Route table ID	Explicit subnet associations
-	rtb-0f42637fe82450918	-
-	rtb-07e0fa58ac315fb87	-
private route-01	rtb-083ec83a3848a56ea	-

rtb-083ec83a3848a56ea / private route-01

Actions ▾ **Create route table**

- [View details](#)
- Set main route table**
- [Edit subnet associations](#)
- [Edit edge associations](#)
- [Edit route propagation](#)
- [Edit routes](#)
- [Manage tags](#)
- [Delete route table](#)

Details | Routes | Subnet associations | Edge associations | Route propagation | Tags

Details

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-083ec83a3848a56ea			

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/> private subnet 2	subnet-0921a595f8c60a895	10.0.3.0/24	-	Main (rtb-07e0fa58ac315fb87)
<input type="checkbox"/> public subnet-1	subnet-09dc6d1676a3c13...	10.0.0.0/24	-	Main (rtb-07e0fa58ac315fb87)
<input checked="" type="checkbox"/> private subnet 1	subnet-00ccbd450350f7d23	10.0.2.0/24	-	Main (rtb-07e0fa58ac315fb87)
<input type="checkbox"/> public subnet 2	subnet-0638172c046eaee...	10.0.1.0/24	-	Main (rtb-07e0fa58ac315fb87)

Selected subnets

subnet-0921a595f8c60a895 / private subnet 2 X subnet-00ccbd450350f7d23 / private subnet 1 X

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

5) Add 2 public subnets in public route table

open the VPC dashboard. Go to Route Tables On the left-hand sidebar, click Route Tables under the Virtual Private Cloud section.

Select the Public Route Table Find the route table

you created for the public subnets (e.g., Public-Route-Table).

Click the checkbox next to the public route table. Add Subnets to the Public Route Table Scroll down to the "Subnet Associations" tab.

Click **Edit subnet associations**. In the list of available subnets, check the boxes next to your public subnets

(e.g., Public-Subnet-1 and Public-Subnet-2)

The screenshot shows two views of the AWS VPC service. The top view is the 'Internet gateways' list page, showing one gateway named 'igw-0bd7037f1890d5de4' which is attached to VPC ID 'vpc-0d01126ec14aaf405'. The bottom view is the 'Create internet gateway' wizard, where a new gateway is being configured with the name tag 'my internet-gateway' and a single tag 'Name: my internet-gateway'.

VPC dashboard

Internet gateways (1) Info

Find internet gateways by attribute or tag

Internet gateway ID	State	VPC ID	Owner
igw-0bd7037f1890d5de4	Attached	vpc-0d01126ec14aaf405	66441895752

Select an internet gateway above

Internet gateway settings

Name tag
Creates a tag with a key of 'Name' and a value that you specify.

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
<input type="text" value="Name"/>	<input type="text" value="my internet-gateway"/> X Remove

Add new tag
You can add 49 more tags.

Create internet gateway

The following internet gateway was created: igw-0686e1a3cd2686e89 - my internet-gateway. You can now attach to a VPC to enable the VPC to communicate with the internet.

Attach to VPC (igw-0686e1a3cd2686e89)

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.

vpc-0c961cc15f84796f1

Use: "vpc-0c961cc15f84796f1"

vpc-0c961cc15f84796f1 - my-vpc-01

Cancel Attach internet gateway

CloudShell Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws Search [Alt+S] United States (N. Virginia) lalithaganta

Internet gateways (1/2)

Name	Internet gateway ID
-	igw-0bd7037f1890d5de4
my internet-gateway	igw-0686e1a3cd2686e89

Actions Create internet gateway

View details

Attach to VPC

Detach from VPC

Manage tags

Delete internet gateway

aws Search [Alt+S] United States (N. Virginia) lalithaganta

VPC > Internet gateways > Attach to VPC (igw-0686e1a3cd2686e89)

Attach to VPC (igw-0686e1a3cd2686e89)

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.

vpc-0c961cc15f84796f1

Use: "vpc-0c961cc15f84796f1"

vpc-0c961cc15f84796f1 - my-vpc-01

Cancel Attach internet gateway

CloudShell Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws TUNE HERE TO SEARCH

6) Public route table will have the routes to internet and local

Click VPC

Go to Route Tables On the left-hand sidebar, click Route Tables

Select the Public Route Table Find the

public route table you want to check (e.g., Public-Route-Table).

Click on the route table to open its details

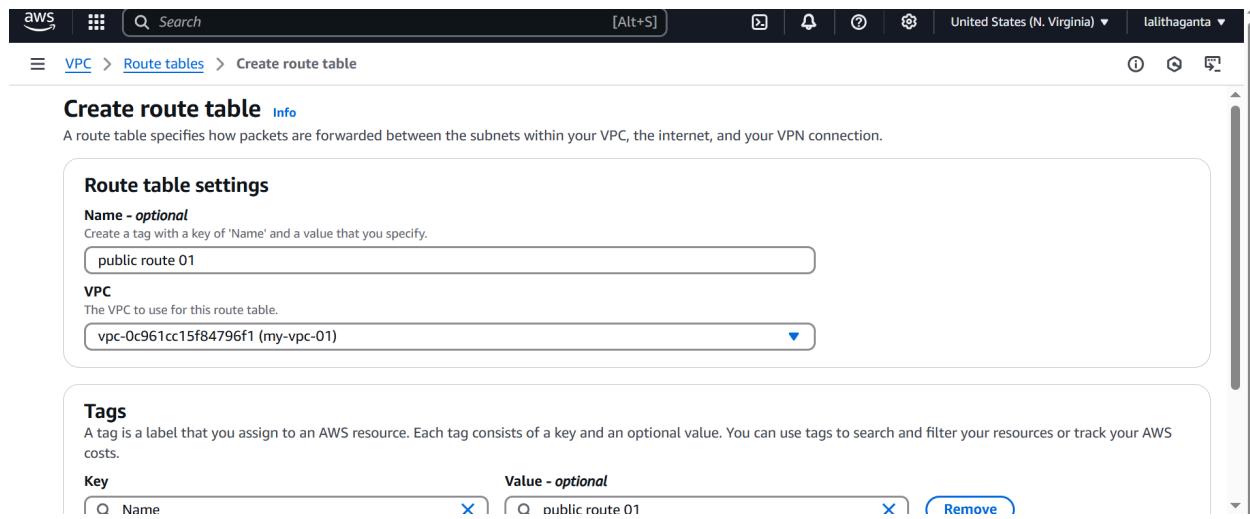
Check the Routes Go to the Routes tab.

Ensure that there are two key routes:

Local route : This route points to the VPC CIDR block (e.g.,10.0.0.0/16) with the target local

Internet route : This route points to 0.0.0.0/0 with the target as the Internet Gateway (e.g.,igw-xxxxxxxxx).

If both of these routes are present, the public subnets will be able to access both the local



aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC dashboard < EC2 Global View Filter by VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists

Route tables (1/4) Info Last updated less than a minute ago

Name	Route table ID	Explicit subnet
-	rtb-0f42637fe82450918	-
-	rtb-07e0fa58ac315fb87	-
private route-01	rtb-083ec83a3848a56ea	2 subnets
public route 01	rtb-0f1cddb620fac8fc	-

Actions ▾ Create route table

- View details
- Set main route table
- Edit subnet associations
- Edit edge associations**
- Edit route propagation
- Edit routes
- Manage tags
- Delete route table

rtb-0f1cddb620fac8fc / public route 01

Details Routes Subnet associations Edge associations Route propagation Tags

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC > Route tables > rtb-0f1cddb620fac8fc > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
private subnet 2	subnet-0921a595f8c60a895	10.0.3.0/24	-	rtb-083ec83a3848a56ea / private
public subnet-1	subnet-09dc6d1676a3c13b5	10.0.0.0/24	-	Main (rtb-07e0fa58ac315fb87)
private subnet 1	subnet-00ccbd450350f7d23	10.0.2.0/24	-	rtb-083ec83a3848a56ea / private
public subnet 2	subnet-0638172c046eaeee	10.0.1.0/24	-	Main (rtb-07e0fa58ac315fb87)

Selected subnets

subnet-09dc6d1676a3c13b5 / public subnet-1 X subnet-0638172c046eaeee / public subnet 2 X

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC dashboard < EC2 Global View Filter by VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists

Route tables (1/4) Info Last updated 1 minute ago

Name	Route table ID	Explicit subnet
-	rtb-0f42637fe82450918	-
-	rtb-07e0fa58ac315fb87	-
private route-01	rtb-083ec83a3848a56ea	2 subnets
public route 01	rtb-0f1cddb620fac8fc	2 subnets

Actions ▾ Create route table

- View details
- Set main route table
- Edit subnet associations
- Edit edge associations
- Edit route propagation
- Edit routes
- Manage tags
- Delete route table

rtb-0f1cddb620fac8fc / public route 01

Details Routes Subnet associations Edge associations Route propagation Tags

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC > Route tables > rtb-0f1cddb620fac8fc > Edit routes

Edit routes

Route 1

Destination	10.0.0.0/16	Target	local	Status	Active
		Search local		<input type="button" value="X"/>	

Propagated: No

Route 2

Destination	0.0.0.0/0	Target	Internet Gateway	Status	-
		Search igw-		<input type="button" value="X"/>	

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC > Route tables > rtb-0f1cddb620fac8fc > Edit routes

10.0.0.0/16 Target: local Status: Active
Search local

Propagated: No

Route 2

Destination	0.0.0.0/0	Target	igw-0686e1a3cd2686e89 (my internet-gateway)	Status	-
		Search igw-0686e1a3cd2686e89		<input type="button" value="X"/>	

Propagated: No

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Type here to search

aws | Search [Alt+S] | United States (N. Virginia) | Lalithaganta

VPC dashboard <

EC2 Global View Filter by VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists

Route tables (1/4) Info Last updated 1 minute ago

Name	Route table ID	Explicit subnets
-	rtb-0f42637fe82450918	-
-	rtb-07e0fa58ac315fb87	-
private route-01	rtb-083ec83a3848a56ea	2 subnets
public route 01	rtb-0f1cddb620fac8fc	2 subnets

Actions ▲ Create route table

- View details
- Set main route table
- Edit subnet associations**
- Edit edge associations
- Edit route propagation
- Edit routes
- Manage tags
- Delete route table

rtb-0f1cddb620fac8fc / public route 01

Details | Routes | Subnet associations | Edge associations | Route propagation | Tags

Details

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-0f1cddb620fac8fc			

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Type here to search

The screenshot shows the AWS VPC Route Tables page. At the top, there's a search bar and navigation links for 'VPC > Route tables > rtb-0f1cddb620fac8fc > Edit subnet associations'. Below this, a table titled 'Available subnets (2/4)' lists four subnets: 'private subnet 2', 'public subnet-1' (selected), 'private subnet 1', and 'public subnet 2'. The 'Selected subnets' section contains two entries: 'subnet-09dc6d1676a3c13b5 / public subnet-1' and 'subnet-0638172c046eaeedb / public subnet 2'. At the bottom right are 'Cancel' and 'Save associations' buttons.

Route tables (1/4) Info

Name	Route table ID	Explicit subnet associations	Edge associations
-	rtb-0f42637fe82450918	-	-
-	rtb-07e0fa58ac315fb87	-	-
private route-01	rtb-083ec83a3848a56ea	2 subnets	-
public route 01	rtb-0f1cddb620fac8fc	2 subnets	-

rtb-0f1cddb620fac8fc / public route 01

Details

Route table ID	Main	Explicit subnet associations	Edge associations
----------------	------	------------------------------	-------------------

7) Create Ec2 in public subnet with t2micro and install php

Step-by-Step: Launch EC2 in Public Subnet and Install PHP

Step 1: Go to EC2 Dashboard Open AWS Console.

Search for EC2 in the Services. Click on “Launch Instance”.

Step 2: Configure EC2 Instance Name your instance:

Amazon Machine Image (AMI): Choose Amazon Linux 2 AMI (HVM), SSD Volume Type

Instance Type: t2.micro (Free Tier eligible)

Step 3: Configure Network Settings VPC: Select your custom VPC (e.g., MyVPC)

Subnet: Select your Public Subnet (e.g., Public-Subnet-1)

Auto-assign Public IP: Enable

Leave rest as default.

Step 4: Add Storage Keep default 8 GiB or customize.

Step 5: Configure Security Group Create new or select existing security group.

Allow the following Inbound Rules: SSH → Port 22 → Source: My IP

HTTP → Port 80 → Source: 0.0.0.0/0

Step 6: Key Pair Select existing key pair or create a new one.

Download the .pem file (if new). Click Launch Instance.

Step 7: Connect to EC2 Open Git Bash or terminal.

Connect using: ssh -i "your-key.pem" ec2-user@<Public-IP>

Step 8: Update System sudo yum update -y

Step 9: Install Apache Web Server sudo yum install httpd -y

sudo systemctl start httpd sudo systemctl enable httpd

Step 10: Install PHP

sudo amazon-linux-extras enable php7.4

sudo yum clean metadata

sudo yum install php php-cli -y

Step 11: Create PHP Test File

echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php

Step 12: Test in Browser

Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags [Info](#)

Name Add additional tags

Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Summary

Number of instances [Info](#)

1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.7.2...[read more](#)
ami-0f88e80871fd81e91

Virtual server type (instance type)
t2.micro

Firewall (security group)

[Cancel](#) [Launch instance](#) [Preview code](#)

Launch an instance [Info](#)

applications required to launch your instance. Search or browse for AMIs if you don't see what you are looking for below

- [Recents](#)
- [My AMIs](#)
- [Quick Start](#)

[Amazon Linux](#) [macOS](#) [Ubuntu](#) [Windows](#) [Red Hat](#) [SUSE](#)

[aws](#) [Mac](#) [ubuntu](#) [Microsoft](#) [Red Hat](#) [SUSE](#)

[Browse more AMIs](#)
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI
Free tier eligible
ami-0f88e80871fd81e91 (64-bit (x86), uefi-preferred) / ami-0bc72bd3b8ba0b59d (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Description

[CloudShell](#) [Feedback](#)

© 2025, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

Summary

Number of instances [Info](#)

1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.7.2...[read more](#)
ami-0f88e80871fd81e91

Virtual server type (instance type)
t2.micro

Firewall (security group)

[Cancel](#) [Launch instance](#) [Preview code](#)

Launch an instance [Info](#)

verified provider

Instance type [Info](#) | [Get advice](#)

Instance type

t2.micro Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0134 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.026 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

[All generations](#) [Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair

Summary

Number of instances [Info](#)

1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.7.2...[read more](#)
ami-0f88e80871fd81e91

Virtual server type (instance type)
t2.micro

Firewall (security group)

[Cancel](#) [Launch instance](#) [Preview code](#)

EC2 > Instances > Launch an instance

On-Demand Ubuntu Pro base pricing: 0.0134 USD per Hour
 On-Demand SUSE base pricing: 0.0116 USD per Hour
 On-Demand RHEL base pricing: 0.026 USD per Hour
 On-Demand Linux base pricing: 0.0116 USD per Hour

Additional costs apply for AMIs with pre-installed software.

Key pair (login) Info

You can use a key pair to securely connect to your instance before you launch the instance.

Key pair name - required

Select

Network settings Info

Network

Create key pair

Key pair name
 Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

RSA RSA encrypted private and public key pair
 ED25519 ED25519 encrypted private and public key pair

Private key file format

.pem For use with OpenSSH

CloudShell Feedback Search [Alt+S] CloudShell Feedback

EC2 > Instances > Launch an instance

Network settings Info

VPC - required Info

vpc-0c961cc15f84796f1 (my-vpc-01) 10.0.0.0/16

Subnet Info

subnet-09dc6d1676a3c13b5 public subnet-1
 VPC: vpc-0c961cc15f84796f1 Owner: 664418957525
 Availability Zone: us-east-1a Zone type: Availability Zone
 IP addresses available: 251 CIDR: 10.0.0.0/24

Create new subnet

Auto-assign public IP Info

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security

Preview code

CloudShell Feedback Search [Alt+S] CloudShell Feedback

EC2 > Instances > Launch an instance

Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type <small>Info</small>	Protocol <small>Info</small>	Port range <small>Info</small>
ssh	TCP	22
Source type <small>Info</small>		
Custom	Source <small>Info</small>	Description - optional <small>Info</small>
e.g. SSH for admin desktop		
0.0.0.0 <input type="button" value="X"/>		

Remove

Security group rule 2 (TCP, 80, 0.0.0.0/0)

Type <small>Info</small>	Protocol <small>Info</small>	Port range <small>Info</small>
HTTP	TCP	80
Source type <small>Info</small>		
Custom	Source <small>Info</small>	Description - optional <small>Info</small>
e.g. SSH for admin desktop		

Remove

Summary

Number of instances Info

1

Software Image (AMI)
 Amazon Linux 2023 AMI 2023.7.2... read more
 ami-0f88e80871fd81e91

Virtual server type (instance type)
 t2.micro

Firewall (security group)

Preview code

AWS | Search [Alt+S] | United States (N. Virginia) | talithaganta

EC2 > Security Groups > sg-09386a688404b6266 - my-vpctask > Edit inbound rules

Security group rule ID	Type	Info	Protocol	Port range	Source	Info	Description - optional
			Info	Info			Info
sgr-04d248a0a6214d5ff	SSH		TCP	22	M...		<input type="text"/> 124.123.187.11/3 2
sgr-09b4e70ae631a2116	HTTP		TCP	80	A...		<input type="text"/> 0.0.0.0/0

Add rule

⚠ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Preview changes Save rules

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates Privacy Terms Cookie preferences

```
ec2-user@ip-10-0-0-42:~
```

```
HP@LAPTOP-LPTR344H MINGW64 ~/Downloads (master)
$ ssh -i "vpc-task.pem" ec2-user@ec2-3-86-227-79.compute-1.amazonaws.com
The authenticity of host 'ec2-3-86-227-79.compute-1.amazonaws.com (3.86.227.79)' can't be established.
ED25519 key fingerprint is SHA256:fnDPX7TA7wsVx7sewIC77jLs739N0BrLgo6rcKwpMMQ.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-86-227-79.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
,#
~\_#####
~~\#####
~~\#####
~~\#/
~~\#/.-->
~~\#/.-->
~~\#/.-->
[ec2-user@ip-10-0-0-42 ~]$ |
```

```
HP@LAPTOP-LPTR344H MINGW64 ~/Downloads (master)
$ ssh -i "vpc-task.pem" ec2-user@ec2-3-86-227-79.compute-1.amazonaws.com
,#
~\_#####
~~\#####
~~\#####
~~\#/
~~\#/.-->
~~\#/.-->
~~\#/.-->
Last login: sun May 11 12:58:25 2025 from 124.123.187.11
[ec2-user@ip-10-0-0-42 ~]$ yum update -y
Error: This command has to be run with superuser privileges (under the root user on most systems).
[ec2-user@ip-10-0-0-42 ~]$ sudo su -
[root@ip-10-0-0-42 ~]# yum update -y
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-10-0-0-42 ~]# |
```



```
sudo: amazon-linux-extras: command not found
[root@ip-10-0-0-42 ~]# sudo yum install php-mysqlnd -y
Last metadata expiration check: 0:40:52 ago on Sun May 11 13:16:48 2025.
Dependencies resolved.
=====
Package           Architecture      Version       Repository   Size
=====
Installing:
php8.4-mysqlnd      x86_64        8.4.5-1.amzn2023.0.1   amazonlinux  157 k
Installing dependencies:
php8.4-common        x86_64        8.4.5-1.amzn2023.0.1   amazonlinux  797 k
php8.4-pdo           x86_64        8.4.5-1.amzn2023.0.1   amazonlinux  100 k
Transaction Summary
=====
Install 3 Packages

Total download size: 1.0 M
Installed size: 10 M
Downloading Packages:
(1/3): php8.4-mysqlnd-8.4.5-1.amzn2023.0.1.x86_64.rpm          3.7 MB/s | 157 kB    00:00
(2/3): php8.4-common-8.4.5-1.amzn2023.0.1.x86_64.rpm          14 MB/s | 797 kB    00:00
(3/3): php8.4-pdo-8.4.5-1.amzn2023.0.1.x86_64.rpm          1.7 MB/s | 100 kB    00:00
-----
Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing :                                                 1/1
  Installing : php8.4-common-8.4.5-1.amzn2023.0.1.x86_64          1/3
  Installing : php8.4-pdo-8.4.5-1.amzn2023.0.1.x86_64          2/3
  Installing : php8.4-mysqlnd-8.4.5-1.amzn2023.0.1.x86_64          3/3
  Running scriptlet: php8.4-mysqlnd-8.4.5-1.amzn2023.0.1.x86_64          3/3
  Verifying  : php8.4-common-8.4.5-1.amzn2023.0.1.x86_64          1/3
  Verifying  : php8.4-mysqlnd-8.4.5-1.amzn2023.0.1.x86_64          2/3
  Verifying  : php8.4-pdo-8.4.5-1.amzn2023.0.1.x86_64          3/3
-----
Installed:
  php8.4-common-8.4.5-1.amzn2023.0.1.x86_64          php8.4-mysqlnd-8.4.5-1.amzn2023.0.1.x86_64          php8.4-pdo-8.4.5-1.amzn2023.0.1.x86_64
Complete!
[root@ip-10-0-0-42 ~]#
```

```

>Last login: Sun May 11 13:52:36 2025 from 124.123.187.11
[ec2-user@ip-10-0-0-42 ~]$ sudo su -
Last login: Sun May 11 13:52:43 UTC 2025 on pts/4
[root@ip-10-0-0-42 ~]# sudo dnf install -y php php-cli php-mysqlnd httpd
Last metadata expiration check: 0:52:08 ago on Sun May 11 13:16:48 2025.
Package php8.4-mysqlnd-8.4.5-1.amzn2023.0.1.x86_64 is already installed.
Package httpd-2.4.62-1.amzn2023.x86_64 is already installed.
Dependencies resolved.
=====
Package           Architecture      Version            Repository   Size
=====
Installing:
php8.4           x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   17 k
Installing dependencies:
libodium          x86_64          1.0.19-4.amzn2023          amazonlinux   176 k
libxml2           x86_64          1.1.43-1.amzn2023.0.1    amazonlinux   183 k
nginx-filesystem noarch         1.1.26.3-1.amzn2023.0.1    amazonlinux   9.6 k
php8.4-cli        x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   3.8 M
php8.4-process   x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   53 k
php8.4-xml        x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   972 k
Installing weak dependencies:
php8.4-fpm       x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   2.0 M
php8.4-mbstring  x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   542 k
php8.4-opcache   x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   492 k
php8.4-sodium    x86_64          8.4.5-1.amzn2023.0.1    amazonlinux   48 k
=====
Transaction Summary
=====
Install 11 Packages

Total download size: 8.2 M
Installed size: 32 M
Downloading Packages:
(1/11): nginx-filesystem-1.26.3-1.amzn2023.0.1.noarch.rpm           310 kB/s | 9.6 kB   00:00
(2/11): libodium-1.0.19-4.amzn2023.x86_64.rpm                      3.7 MB/s | 176 kB   00:00
(3/11): php8.4-8.4.5-1.amzn2023.0.1.x86_64.rpm                   888 kB/s | 17 kB   00:00
(4/11): libxml2-1.1.43-1.amzn2023.0.1.x86_64.rpm                  3.1 MB/s | 183 kB   00:00
(5/11): php8.4-fpm-8.4.5-1.amzn2023.0.1.x86_64.rpm                30 kB/s | 2.0 MB   00:00
(6/11): php8.4-mbstring-8.4.5-1.amzn2023.0.1.x86_64.rpm             6.3 MB/s | 542 kB   00:00
(7/11): php8.4-cli-8.4.5-1.amzn2023.0.1.x86_64.rpm                 32 kB/s | 3.8 MB   00:00
(8/11): php8.4-opcache-8.4.5-1.amzn2023.0.1.x86_64.rpm              9.8 MB/s | 492 kB   00:00
(9/11): php8.4-process-8.4.5-1.amzn2023.0.1.x86_64.rpm              1.6 MB/s | 53 kB   00:00

```

8) Configure Nat gateway in public subnet and connect to private Instance

1) Configure Nat gateway in public subnet and connect to private Instance

Create an EC2 instance in a private subnet Set up a NAT Gateway for internet access SSH into the private EC2 using Git Bash

Part 1: Create EC2 in a Private Subnet

1. Create or Use an Existing VPC Go to VPC Dashboard → Create VPC

CIDR block: 10.0.0.0/16

2. Create Two Subnets

3. Create and Attach Internet Gateway Go to Internet Gateways → Create one Attach it to your VPC

4. Create Route Tables

5. Launch EC2 Instances

Part 2: Create and Attach a NAT Gateway

1. Allocate Elastic IP Go to Elastic IPs → Allocate

2. Create NAT Gateway

Go to NAT Gateways Select the public subnet Use the Elastic IP you allocated

3. Update Route Table for Private Subnet Go to the private route table

Part 3: SSH Using Git Bash (from your local machine)

1. SSH into the Bastion (Public EC2)

```
ssh -i "my-key.pem" ec2-user@<Public-IP-of-Bastion-EC2>
```

Replace ec2-user with your instance's OS default user:

2. Copy Private Key to Bastion EC2 If using a different key for private EC2:

```
scp -i "my-key.pem" private-key.pem ec2-user@<Bastion-IP>:/home/ec2-user/
```

Then SSH into bastion and run: chmod 600 private-key.pem

aws | Q vpC | United States (N. Virginia) | lalithaganta

EC2 > Security Groups > sg-09386a688404b6266 - my-vpctask

Elastic IP addresses

No Elastic IP addresses found in this Region

Select an elastic IP address

View IP address usage and recommendations to release unused IPs with Public IP insights.

Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Auto Scaling

aws | Q vpC | United States (N. Virginia) | lalithaganta

EC2 > Elastic IP addresses > Allocate Elastic IP address

Allocate Elastic IP address

Elastic IP address settings

Public IPv4 address pool

- Amazon's pool of IPv4 addresses
- Public IPv4 address that you bring to your AWS account with BYOIP. (option disabled because no pools found) [Learn more](#)
- Customer-owned pool of IPv4 addresses created from your on-premises network for use with an Outpost. (option disabled because no customer owned pools found) [Learn more](#)
- Allocate using an IPv4 IPAM pool (option disabled because no public IPv4 IPAM pools with AWS service as EC2 were found)

Network border group

us-east-1

Global static IP addresses

AWS Global Accelerator can provide global static IP addresses that are announced worldwide using anycast from AWS edge locations. This can help improve the availability.

aws | Q vpC | United States (N. Virginia) | lalithaganta

EC2 > Security Groups > sg-09386a688404b6266 - my-vpctask

Elastic IP address allocated successfully.
Elastic IP address 52.6.222.12

Elastic IP addresses (1)

Public IPv4 address : 52.6.222.12

Associate this Elastic IP address

Elastic IP addresses (1)

Name | Allocated IPv4 addr... | Type | Allocation ID

-	52.6.222.12	Public IP	eipalloc-0d31746c122b416
---	-------------	-----------	--------------------------

Select an elastic IP address

View IP address usage and recommendations to release unused IPs with Public IP insights.

Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Auto Scaling

The screenshot shows the AWS VPC service interface. In the left sidebar under 'Virtual private cloud', 'NAT gateways' is selected. The main area displays a table header for 'NAT gateways' with columns for Name, NAT gateway ID, Connectivity..., State, and State message. A search bar at the top says 'Find NAT gateways by attribute or tag'. Below the table, it says 'No NAT gateways found'. At the bottom, there's a section titled 'Select a NAT gateway' with three small icons.

The screenshot shows the 'Create NAT gateway' wizard. The first step, 'NAT gateway settings', is displayed. It includes fields for 'Name - optional' (containing 'my-nat-01'), 'Subnet' (containing 'subnet-09dc6d1676a3c13b5 (public subnet-1)'), and 'Connectivity type' (with 'Public' selected). There are also sections for 'Additional settings' and 'Tags'.

The screenshot shows the 'Create NAT gateway' configuration page. It includes fields for 'Elastic IP allocation ID' (containing 'eipalloc-0d31746c122b41643') and an 'Allocate Elastic IP' button. The 'Additional settings' and 'Tags' sections are also visible, with 'Tags' showing a key-value pair ('Name' and 'my-nat-01').

Screenshot of the AWS VPC Route Tables management interface.

Route tables (1/4) Info

Last updated about 3 hours ago

Actions ▾

- View details
- Set main route table
- Edit subnet associations
- Edit edge associations
- Edit route propagation
- Edit routes
- Manage tags
- Delete route table

Name	Route table ID	Explicit subnet
-	rtb-0f42637fe82450918	-
-	rtb-07e0fa58ac315fb87	-
private route-01	rtb-083ec83a3848a56ea	2 subnets
<input type="checkbox"/> public route 01	rtb-0f1cddb620fac8fcf	2 subnets

rtb-083ec83a3848a56ea / private route-01

Details | **Routes** | **Subnet associations** | **Edge associations** | **Route propagation** | **Tags**

Edit routes

Route 1

Destination: 10.0.0.0/16

Target: local

Status: Active

Propagated: No

Route 2

Destination: 0.0.0.0/0

Target: nat-0e7ae7b4026156e14 (my-nat-01)

Status: -