

Virtual Private Cloud (VPC)

Assignment – VPC and Peering (Case study)

Problem Statement

You work for XYZ Corporation and based on the expansion requirements of your corporation you been asked to create and set up a distinct Amazon VPC for the production and development team. You are expected to perform the following tasks for the respective VPCs.

Production Network:

1. Design and build a 4-tier architecture.
2. Create 5 subnets out of which 4 should be private named app1, app2, dbcache and db and one should be public, named web.
3. Launch instance in all subnets and name them as per the subnet that they have been launched in.
4. Allow dbcache instance and app1 subnet to send internet requests.
5. Manage security groups and NACLs.

Development Network:

1. Design and build 2-tier architecture with two subnet named web and db and launch instances in both subnet and name them as per the subnet names.
2. Make sure only the web subnet and send internet requests
3. Create peering connection between production network and development network
4. Setup connection between db subnet of both production network and development network respectively.

Steps

Production Network

- Click create VPC
- Provide a name to VPC and provide the CIDR
- Provide the necessary configuration
- Finally VPC is created
- Go to visual subnet calculator
- provide the Network address and click update
- And divide depend upon the requirement
- Click create subnet (create 4 private, 1 public)
- Provide the name for the subnet and availability zone (private subnet name – app1, app2, dbcache and db; public subnet name – web)
- Provide CIDR block which was calculated

- Create 4 private subnet name – app1, app2, dbcache and db and create 1 public subnet name – web
- Select the public subnet (Web) separately and go to action
- Click edit subnet association and enable auto assign public IPV4 address
- And click save the changes
- Click the Create internet gateway
- Provide the name for internet gateway
- Finally internet gateway is created
- Go to action and click attach VPC
- Select the VPC which was created and click attach internet gateway
- Click the create route table for public
- Provide the name for route table
- Select the VPC which was created
- Finally route table is created
- Select the route table and go to action
- Click Edit subnet association and select the public subnet web
- And click the save association
- Select the route table and go to routes
- Click edit routes and add route
- Select the destination as 0.0.0.0/0 and select the target as internet gateway which was created
- Click the save changes
- Click the Create NAT gateway
- Provide the name for NAT gateway
- Create the NAT gate way in the public subnet which is Web
- Select the connectivity type as Public
- Finally NAT gateway is created
- Click the create route table for private
- Provide the name for route table
- Select the VPC which was created
- Finally route table is created
- Select the route table and go to action
- Click Edit subnet association and select the 2 private subnet named dbcache and app1
- And click the save association
- Select the route table and go to routes
- Click edit routes and add route
- Select the destination as 0.0.0.0/0 and select the target as NAT gateway which was created

- Click the save changes
- Finally the entire VPC is created
- Create 5 EC2 instance with named app1, app2, dbcache and db and web
- Click the launch instance
- Provide the name for the EC2 instance (app1, app2, dbcache and db and web)
- Click the create key pair and provide the name for key pair
- Select the key pair for the EC2 instance which created
- Select the VPC which was created and select the subnet as per the Instance name
- Provide the necessary configuration
- Finally EC2 instance is created
- Select the Web instance which has public IP and presented in public subnet and click connect
- Update the instance by running the command **sudo apt-get update**
- Create a file by running the command **sudo vi filename.pem**
- And paste the content of the key pair inside the file which was given in the creation of EC2 instance, save and exit the file
- Next change the permission of the key by running the command **sudo chmod 400 filename.pem**
- To connect to the private EC2 instance by running the command **sudo ssh -i filename.pem ec2-user@private IP** of the private instance (dbcache instance or app1 Instance) (Since the private Instance does not have public IP we can't connect private EC2 instance directly, So Private Ec2 instance can be connected with help of public instance (running the command which was explained in previous step) in the public EC2 instance)
- Provide Yes to continue and Now we are connected to private EC2 instance
- To send internet requests from private EC2 instance (dbcache instance or app1 Instance) by running the command **ping google.com** (The private EC2 instance can send the internet requests because already NAT gate was created and associated in private route table subnet (dbcache and app1) so it as the route to send the internet requests with the help of NAT gateway)
- We can manage the security group of the VPC with the help of **NACLs** which was created automatically while creating VPC

VPC > Your VPCs > Create VPC

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 resource or the VPC and other networking resources.

VPC only VPC and more

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

production-vpc

IPv4 CIDR block Info
 IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.0.0.0/16
CIDR block size must be between /16 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

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.

No IPv6 CIDR block IPAM-allocated IPv6 CIDR block Amazon-provided IPv6 CIDR block IPv6 CIDR owned by me

Network border group
A network border group is a unique group of Zones from where IPv4 and IPv6 IP addresses are advertised. All Availability Zones in this VPC will use this network border group.
us-east-1

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 - <i>optional</i>
<input type="text" value="Name"/>	<input type="text" value="production-vpc"/> <input type="button" value="Remove tag"/>

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Network border group
A network border group is a unique group of Zones from where IPv4 and IPv6 IP addresses are advertised. All Availability Zones in this VPC will use this network border group.

us-east-1 ▾

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
<input type="text" value="Name"/> X	<input type="text" value="production-vpc"/> X
Remove tag	
Add tag	
You can add 49 more tags	

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

The screenshot shows the AWS VPC Details page for a newly created VPC named 'production-vpc'. The top navigation bar includes CloudShell, Feedback, and links for 2024, Privacy, Terms, and Cookie preferences. On the left, a sidebar lists 'Virtual private cloud' sections: Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, and Managed prefix lists. The main content area displays the VPC's configuration:

Details		Info	
VPC ID	vpc-09f427e942c8aa5e9	State	Available
Tenancy	DHCP option set	DNS hostnames	DNS resolution
Default	dopt-05949dc482ae0ba8d	Disabled	Enabled
Default VPC	IPv4 CIDR	Main route table	Main network ACL
No	10.0.0.0/16	rtb-0f1cb8a86fd3a784e	acl-0248219681873fbe9
Network Address Usage metrics	Route 53 Resolver DNS Firewall rule groups	IPv6 pool	IPv6 CIDR (Network border group)
Disabled	-	Amazon Associated	2600:1f18:5d96:d600::/56 (us-east-1)
		Owner ID	992382377757
			Associated

At the bottom, there are tabs for Resource map, CIDs, Flow logs, Tags, and Integrations. The footer contains links for 2024, Privacy, Terms, and Cookie preferences.

Specify the CIDR blocks and Availability Zone for the 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 CIDR block

[Manual input](#) [No IPv4 CIDR](#)

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](#)

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.

No preference

IPv4 CIDR block

Manual input No IPv4 CIDR

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.

10.0.0.0/16

IPv4 subnet CIDR block

8,192 IPs

< > ^ v

IPv6 CIDR block

CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

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.

No preference

IPv4 CIDR block

Manual input No IPv4 CIDR

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.

10.0.0.0/16

IPv4 subnet CIDR block

8,192 IPs

< > ^ v

IPv6 CIDR block

CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

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.

No preference

IPv4 CIDR block

Manual input No IPv4 CIDR

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.

10.0.0.0/16

IPv4 subnet CIDR block

8,192 IPs

< > ^ v

IPv6 CIDR block

CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

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.

No preference

IPv4 CIDR block

Manual input No IPv4 CIDR

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.

10.0.0.0/16

IPv4 subnet CIDR block

10.0.128.0/19 8,192 IPs

IPv6 CIDR block

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC dashboard X

EC2 Global View [View](#)

Filter by VPC: Select a 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

Subnets (5) [Info](#)

Find resources by attribute or tag

VPC : vpc-09f427e942c8aa5e9 X Clear filters

Name	Subnet ID	State	VPC
app1	subnet-00ec4546c51f51bf0	Available	vpc-09f427e942c8aa5e9 prod...
app2	subnet-0b5ca1964e809174a	Available	vpc-09f427e942c8aa5e9 prod...
dbcache	subnet-0d0c34308c02b5105	Available	vpc-09f427e942c8aa5e9 prod...
db	subnet-0c34b56d65a2fac5e	Available	vpc-09f427e942c8aa5e9 prod...
web	subnet-03c57b71c440ca1e8	Available	vpc-09f427e942c8aa5e9 prod...

Select a subnet

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Subnets > [subnet-03c57b71c440ca1e8](#) > Edit subnet settings

Edit subnet settings [Info](#)

Subnet

Subnet ID	Name
subnet-03c57b71c440ca1e8	web

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](#)

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.

Enable resource name DNS A record on launch [Info](#)

Enable resource name DNS AAAA record on launch [Info](#)

Hostname type [Info](#)

Resource name

IP name

DNS64 settings

Enable DNS64 to allow IPv6-only services in Amazon VPC to communicate with IPv4-only services and networks.

Enable DNS64 [Info](#)

[Cancel](#) [Save](#)

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

This internet gateway is a virtual device that connects your VPC to the internet. To create an internet gateway specify the name for the gateway below.

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="production-igw"/> X

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

[Cancel](#) [Create internet gateway](#)

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > [Internet gateways](#) > Attach to VPC (igw-0e4246f295dd79825) [Info](#)

Attach to VPC (igw-0e4246f295dd79825)

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.

[X](#)

▶ AWS Command Line Interface command

[Cancel](#) [Attach internet gateway](#)

Internet gateway igw-0e4246f295dd79825 successfully attached to vpc-09f427e942c8aa5e9

VPC > Internet gateways > igw-0e4246f295dd79825

igw-0e4246f295dd79825 / production-igw

Details [Info](#)

Internet gateway ID igw-0e4246f295dd79825	State Attached	VPC ID vpc-09f427e942c8aa5e9	Owner 992382377757
--	-----------------------------------	---	---------------------------------------

Tags

Key	Value
Name	production-igw

[Manage tags](#)

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Internet gateways (1) [Info](#)

[Search](#) [Clear filters](#)

Name	Internet gateway ID	State	VPC ID
production-igw	igw-0e4246f295dd79825	Attached	vpc-09f427e942c8aa5e9

Select an internet gateway above

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

[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.

Value - optional

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

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.

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="web-rt"/>
Remove	
Add new tag	

You can add 49 more tags.

[Cancel](#)
[Create route table](#)

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

[VPC](#) > [Route tables](#) > [rtb-060bb634387adadc9](#) > Edit routes

Edit routes

Destination	Target	Status	Propagated
2600:1f18:5d96:d600::/56	<input type="text" value="local"/>	<input checked="" type="checkbox"/> Active	No
10.0.0.0/16	<input type="text" value="local"/>	<input checked="" type="checkbox"/> Active	No
0.0.0.0/0	<input type="text" value="Internet Gateway"/>	-	No
	<input type="text" value="igw-0e4246f295dd79825"/>		Remove

[Add route](#)

[Cancel](#)
[Preview](#)
[Save changes](#)

[VPC](#) > [Route tables](#) > [rtb-060bb634387adadc9](#) > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/5)

Available subnets (1/5)					
<input type="text" value="Filter subnet associations"/> < 1 > ⚙					
Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID	
dbcache	subnet-0d0c34308c02b5105	10.0.64.0/19	-	Main (rtb-0f1cb8a86fd3a784e)	
db	subnet-0c34b56d65a2fac5e	10.0.96.0/19	-	Main (rtb-0f1cb8a86fd3a784e)	
app1	subnet-00ec4546c51f51bf0	10.0.0.0/19	-	Main (rtb-0f1cb8a86fd3a784e)	
<input checked="" type="checkbox"/> web	subnet-03c57b71c440ca1e8	10.0.128.0/19	-	Main (rtb-0f1cb8a86fd3a784e)	
app2	subnet-0b5ca1964e809174a	10.0.32.0/19	-	Main (rtb-0f1cb8a86fd3a784e)	

Selected subnets

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

You have successfully updated subnet associations for rtb-060bb634387adadc9 / web-rt.

Route tables (1/3) Info

Name	Route table ID	Explicit subnet associ...	Edge associations	M
-	rtb-058613d754fa06612	-	-	Ye
-	rtb-0f1cb8a86fd3a784e	-	-	Ye
web-rt	rtb-060bb634387adadc9	subnet-03c57b71c440ca...	-	Nc

Explicit subnet associations (1)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
web	subnet-03c57b71c440ca1e8	10.0.128.0/19	-

Subnets without explicit associations (4)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
sub-03c57b71c440ca1e8	subnet-03c57b71c440ca1e8	10.0.128.0/19	-
sub-03c57b71c440ca1e9	subnet-03c57b71c440ca1e9	10.0.128.0/19	-
sub-03c57b71c440ca1ea	subnet-03c57b71c440ca1ea	10.0.128.0/19	-
sub-03c57b71c440ca1eb	subnet-03c57b71c440ca1eb	10.0.128.0/19	-

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

CloudShell Feedback

You have successfully updated subnet associations for rtb-060bb634387adadc9 / web-rt.

Route tables (1/3) Info

Name	Route table ID	Explicit subnet associ...	Edge associations	M
-	rtb-058613d754fa06612	-	-	Ye
-	rtb-0f1cb8a86fd3a784e	-	-	Ye
web-rt	rtb-060bb634387adadc9	subnet-03c57b71c440ca...	-	Nc

Filter routes

Destination	Target	Status	Propagated
2600:1f18:5d96:d600::/56	local	Active	No
0.0.0.0/0	igw-0e4246f295dd79825	Active	No
10.0.0.0/16	local	Active	No

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

CloudShell Feedback

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.

Key	Value - <i>optional</i>
<input type="text" value="Key1"/>	<input type="text" value="Value1"/>
<input type="text" value="Key2"/>	<input type="text" value="Value2"/>
<input type="text" value="Key3"/>	<input type="text" value="Value3"/>

[CloudShell](#) [Feedback](#) © 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

VPC > [Route tables](#) > [rtb-04a4823341864d22d](#) > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/5)

Filter subnet associations					
	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>	dbcache	subnet-0a4b60855728bc0a4	10.0.0.64/27	-	Main (rtb-052f1ebbe77036166)
<input type="checkbox"/>	db	subnet-0bce6b95cf6e52140	10.0.0.96/27	-	Main (rtb-052f1ebbe77036166)
<input type="checkbox"/>	app2	subnet-01c8cec2904d3de9f	10.0.0.32/27	-	Main (rtb-052f1ebbe77036166)
<input type="checkbox"/>	web	subnet-0d1b8e29511550ca4	10.0.0.128/27	-	rtb-09ffb0c63ac477e9f / web-
<input checked="" type="checkbox"/>	app1	subnet-0dea07fb3c9752e	10.0.0.0/27	-	Main (rtb-052f1ebbe77036166)

Selected subnets

Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
subnet-0a4b60855728bc0a4	10.0.0.64/27	-	Main (rtb-052f1ebbe77036166)
subnet-0dea07fb3c9752e	10.0.0.0/27	-	Main (rtb-052f1ebbe77036166)

[CloudShell](#) [Feedback](#) © 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

VPC > NAT gateways > Create NAT gateway

Create NAT gateway Info

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

NAT gateway settings

Name - *optional*
Create a tag with a key of 'Name' and a value that you specify.

nat-gtw

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.

subnet-0d1b8e29511550ca4 (web)

Connectivity type
Select a connectivity type for the NAT gateway.

Public

Private

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Elastic IP address 54.237.76.135 (eipalloc-0f1ff920e816585b) allocated.

Elastic IP allocation ID Info
Assign an Elastic IP address to the NAT gateway.

eipalloc-0f1ff920e816585b

Allocate Elastic IP

► Additional settings Info

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 Q nat-gtw X Remove

Add new tag

You can add 49 more tags.

Cancel Create NAT gateway

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Route tables > rtb-04a4823341864d22d > Edit routes

Edit routes

Destination	Target	Status	Propagated
10.0.0.0/24	local local	Active	No
Q 0.0.0.0/0	NAT Gateway nat-0d92939d69fc28e18	-	No

Add route

Cancel Preview Save changes

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Route tables (1/4) Info

Name	Route table ID	Explicit subnet assoc...	Edge associations
-	rtb-052f1ebbe77036166	-	Yes
web-rt	rtb-09ffb0c63ac477e9f	subnet-0d1b8e29511550...	No
-	rtb-03d69b0ce0b0fc21d	-	Yes
dbcache-app1-rt	rtb-04a4823341864d22d	2 subnets	No

Routes (2)

Destination	Target	Status	Propagated
0.0.0.0/0	nat-0d92939d69fc28e18	Active	No
10.0.0.0/24	local	Active	No

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Subnets	
Route tables	
Internet gateways	
Egress-only internet gateways	
Carrier gateways	
DHCP option sets	
Elastic IPs	
Managed prefix lists	
Endpoints	
Endpoint services	
NAT gateways	
Peering connections	
▼ Security	
Network ACLs	
Security groups	

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Edit inbound rules <small>Info</small>					
Rule number <small>Info</small>	Type <small>Info</small>	Protocol <small>Info</small>	Port range <small>Info</small>	Source <small>Info</small>	Allow/Deny <small>Info</small>
100	All traffic	All	All	0.0.0.0/0	Allow
200	SSH (22)	TCP (6)	22	0.0.0.0/0	Allow
300	HTTP (80)	TCP (6)	80	0.0.0.0/0	Allow
*	All traffic	All	All	0.0.0.0/0	Deny

Add new rule Sort by rule number Cancel Preview changes Save changes

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

[EC2](#) > [Instances](#) > Launch an instance

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.

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Search our full catalog including 1000s of application and OS images

Recent Quick Start

Amazon Linux
macOS
Ubuntu
Windows
Red Hat
...
 Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI Free tier eligible
 ami-0d7a109bf30624c99 (64-bit (x86), uefi-preferred) / ami-08b46fd32a1a5be7f (64-bit (Arm), uefi)
 Virtualization: hvm ENA enabled: true Root device type: ebs

Description
Amazon Linux 2023 AMI 2023.3.20240312.0 x86_64 HVM kernel-6.1

Architecture Boot mode AMI ID

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

▼ Summary

Number of instances Info

Software Image (AMI)
 Amazon Linux 2023 AMI 2023.3.2...[read more](#)
 ami-0d7a109bf30624c99

Virtual server type (instance type)
 t2.micro

Firewall (security group)
 New security group

Storage (volumes)

Cancel Launch instance

[Review commands](#)

[EC2](#) > [Instances](#) > Launch an instance

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.

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Search our full catalog including 1000s of application and OS images

Recent Quick Start

Amazon Linux
macOS
Ubuntu
Windows
Red Hat
...
 Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI Free tier eligible
 ami-0c101f26f147fa7fd (64-bit (x86), uefi-preferred) / ami-08b46fd32a1a5be7f (64-bit (Arm), uefi)
 Virtualization: hvm ENA enabled: true Root device type: ebs

Description
Amazon Linux 2023 AMI 2023.3.20240312.0 x86_64 HVM kernel-6.1

Architecture Boot mode AMI ID

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

▼ Summary

Number of instances Info

Software Image (AMI)
 Amazon Linux 2023 AMI 2023.4.2...[read more](#)
 ami-0c101f26f147fa7fd

Virtual server type (instance type)
 t2.micro

Firewall (security group)
 New security group

Storage (volumes)

Cancel Launch instance

[Review commands](#)

Network settings

VPC - required [Info](#)
vpc-03bb62f7805312425 (production-vpc)
10.0.0.0/24

Subnet [Info](#)
subnet-01c8cec2904d3de9f app2
VPC: vpc-03bb62f7805312425 Owner: 891377014436 Availability Zone: us-east-1b IP addresses available: 27 CIDR: 10.0.0.32/27

Create new subnet

Auto-assign public IP [Info](#)
Disable

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 group

Security group name - required

Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...[read more](#)
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel Launch instance

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Launch an instance

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 dbcache

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.

Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...[read more](#)
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel Launch instance

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Network settings

VPC - required [Info](#)
vpc-03bb62f7805312425 (production-vpc)
10.0.0.0/24

Subnet [Info](#)
subnet-0a4b60855728bc0a4 dbcache
VPC: vpc-03bb62f7805312425 Owner: 891377014436 Availability Zone: us-east-1b IP addresses available: 27 CIDR: 10.0.0.64/27

Create new subnet

Auto-assign public IP [Info](#)
Disable

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 group

Security group name - required

Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...[read more](#)
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel Launch instance

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

[EC2](#) > [Instances](#) > Launch an instance

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.

Network settings Info

VPC - **required** Info 10.0.0.0/24

Subnet Info db Create new subnet [\[?\]](#)

Auto-assign public IP Info

Firewall (security groups) Info Create security group Select existing security group

Security group name - **required**

Summary

Number of instances Info

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2... [read more](#)
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel
Launch instance
[Review commands](#)

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

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

[EC2](#) > [Instances](#) > Launch an instance

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.

Summary

Number of instances Info

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2... [read more](#)
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel
Launch instance
[Review commands](#)

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

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

Network settings

VPC - required [Info](#)
vpc-03bb62f7805312425 (production-vpc)
10.0.0.0/24

Subnet [Info](#)
subnet-0d1b8e29511550ca4 web
VPC: vpc-03bb62f7805312425 Owner: 891377014436 Availability Zone: us-east-1b IP addresses available: 27 CIDR: 10.0.0.128/27

Create new subnet [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 [Create security group](#) Select existing security group [Select existing security group](#)

Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...[read more](#) ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel [Launch instance](#) Review commands

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

1x 8 GiB gp3 Root volume (Not encrypted)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage [X](#)

Add new volume

Click refresh to view backup information
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems [Edit](#)

Advanced details [Info](#)

Instances (1/5) Info

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Ava
db	i-06ae68c21eb57cf7c	Running	t2.micro	Initializing	View alarms +	us-e
app2	i-0569711570a52689e	Running	t2.micro	2/2 checks passed	View alarms +	us-e
app1	i-05f873ca972e3789f	Running	t2.micro	2/2 checks passed	View alarms +	us-e
dbcache	i-010bb5351d73dacc7	Running	t2.micro	2/2 checks passed	View alarms +	us-e
web	i-0ffa48f5c747c7c0d	Pending	t2.micro	-	View alarms +	us-e

Instance: i-0ffa48f5c747c7c0d (web)

Details Status and alarms [New](#) Monitoring Security Networking Storage Tags

Instance ID: i-0ffa48f5c747c7c0d Public IPv4 address: 10.0.0.128 Private IPv4 addresses:

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

```
-- BEGIN RSA PRIVATE KEY --
MIIEogIBAAKCAQEA13M0hR7E61n0AyxU6Fxjh30BheYF4Mia2wyBlVwlp1u60W1
CU12yZPWL4Nm5P40LqTcfhb+cd6nxPhpQz1cvK9Pd5S9EVAr50u5f/FRrJgt
N1B0chLk5z2B1laCw7Tyz2BpxWy9q9Wm2MuHdTrdvaHfKmpX716LwdSpuk1i
ao/vUQCQKU5bxDrpEw621kqlT0U93osD9pveuPNH/PCussJ/qJFTGFDU5Wa3g
kf01ip9FZRWQehDTxAvzCx6k9s7g9v8wsKyxTs287mPlFSyHEODFQ0157Nu5a5j
20qnst+tluq60mcsvsu/x/g/CMOSzv1zyTxy1W1d0AaB01aBCQfMs7wpSrnhc
sFAuZ0Bw/UmB/3M8145Ie30yTmhNuPaqs34Qv6x0MrwGbFH0V1d/q2NPr3dsx
S6hne6n9vqbyBd6GNAbVduY98r8pEc0xCrWCFe9AQVIxSrxJnF0MDQ073Qrd
ln3gi5Wtkt6v61bo6GL70K05CV317E2Vlgw2v1cLdgnp43z2E2z2du5nTa
JN73lqjwE9sVkwXdoDnxSyxJnKJNKHehasJ9Csfd1c5ftBobj02FuFIp+Aya2G
nm6Y7sztNxQWbHJaw18s5hTzxc61JtMu2J19kri14lUy6qakezvBxr3M7eT
+Tacls+zaOGAM+JW6sRo30Y5Cnd57G4U1SLS1RpqzYEuHf0lVyyV1z3hM2j
51ItTsam1zkPn+Q191V1L9i41wLriuq5TM1HjrBch165jabsKEOK+LHyyP0l
up6K9Ce2rlyOjm9K010Ku5HSHUtsQrSnpBnJyrJtmPmCcZC1paAAyFaQGABLa
yDz4JKoQbLbWHkm7G6l0NwnR0RsrimM8uYJG86K1+lVik+r8gBFxYvh6Fxfq
pbcd9h1EnMnUvPL1J2R0xE5v5kp/8jVan9xujnHz35tB157gSpew10979jt/k
LExW2t+5hd2MyTA938LdUge5uJLAVGevrAnarHng5ChQpdTkdf292tKeP
prCmQyVehMvbnoQ9HgbXCPBrL0n+2rnmalDbwCpus+B1h1akSY9561ASwerB1
rh/pQbBwQy1qabf1/Jlybz32z70Lh16i3p5J1/KW1ytdBwX9014H4tv0lzuXVzR
eA2k7ijYq1vd0a/8Fkp9aoGAS/4P5hU+kUck4Y/J9xVxWkjPktJvaZdc999EyWt
XkyW02SyGt57Q5KBN1KQx7B6M19lkVGM2neA9/731/yTywLoYtBn4Af7ic
mbMtJn+4Y+R*YjirB27Wt4nma45hd5H5cvqLNgB7TkrXqd+qMeZerLiU92h
5b8CgYErQ205wSuhschg14u9bLch1kTBrh0f14gNpInbLbqLoKjFzcuct+mlsvQ
-- INSERT --
```

Top

```
[ec2-user@ip-10-0-0-151 ~]$ sudo vi book.pem
```

```
[ec2-user@ip-10-0-0-151 ~]$ sudo vi book.pem  
[ec2-user@ip-10-0-0-151 ~]$ sudo chmod 400 book.pem  
[ec2-user@ip-10-0-0-151 ~]$ █
```

```
[ec2-user@ip-10-0-0-151 ~]$ sudo vi book.pem
[ec2-user@ip-10-0-0-151 ~]$ sudo chmod 400 book.pem
[ec2-user@ip-10-0-0-151 ~]$ sudo ssh -i book.pem ec2-user@10.0.0.74
The authenticity of host '10.0.0.74 (10.0.0.74)' can't be established.
ED25519 key fingerprint is SHA256:+Ko4lWrOrjXsv3omSW602A+WknovHzdkOki6jlNP8.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.0.0.74' (ED25519) to the list of known hosts.

          #
         /###\
        ~\ ####\           Amazon Linux 2023
        ~~ \###\
        ~~ \###|
        ~~ \###|
        ~~ \###| https://aws.amazon.com/linux/amazon-linux-2023
        ~~ V~'`->
        ~~
        ~~ .`/`/
        ~~ /`/`/
        ~~ /m`/`/
[ec2-user@ip-10-0-0-74 ~]$
```

```

~~~ /  

~~ .-/-/  

~/m/'  

[ec2-user@ip-10-0-0-74 ~]$ ping google  

ping: google: No address associated with hostname  

[ec2-user@ip-10-0-0-74 ~]$ ping google.com  

PING google.com (172.253.122.100) 56(84) bytes of data.  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=1 ttl=57 time=3.44 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=2 ttl=57 time=2.56 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=3 ttl=57 time=2.56 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=4 ttl=57 time=2.58 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=5 ttl=57 time=2.60 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=6 ttl=57 time=2.59 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=7 ttl=57 time=3.53 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=8 ttl=57 time=2.54 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=9 ttl=57 time=2.64 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=10 ttl=57 time=2.58 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=11 ttl=57 time=2.59 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=12 ttl=57 time=2.58 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=13 ttl=57 time=2.54 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=14 ttl=57 time=2.56 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=15 ttl=57 time=2.55 ms  

64 bytes from bh-in-f100.le100.net (172.253.122.100): icmp_seq=16 ttl=57 time=2.55 ms  

  

[ec2-user@ip-10-0-0-151 ~]$ sudo ssh -i book.pem ec2-user@10.0.0.15  

The authenticity of host '10.0.0.15 (10.0.0.15)' can't be established.  

ED25519 key fingerprint is SHA256:18/d+g46fSfy7qvs+/hclDzaZdFFUVQWPDKGrjIxM7o.  

This key is not known by any other names  

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  

Warning: Permanently added '10.0.0.15' (ED25519) to the list of known hosts.  

' _ #  

~\_ #####\ Amazon Linux 2023  

~~ \###!  

~~ \#/ __ https://aws.amazon.com/linux/amazon-linux-2023  

~~ V~' ,->  

~~ /  

~~ .-/-/  

~/m/'  

[ec2-user@ip-10-0-0-15 ~]$  

  

[ec2-user@ip-10-0-0-151 ~]$ sudo ssh -i book.pem ec2-user@10.0.0.15  

The authenticity of host '10.0.0.15 (10.0.0.15)' can't be established.  

ED25519 key fingerprint is SHA256:18/d+g46fSfy7qvs+/hclDzaZdFFUVQWPDKGrjIxM7o.  

This key is not known by any other names  

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  

Warning: Permanently added '10.0.0.15' (ED25519) to the list of known hosts.  

' _ #  

~\_ #####\ Amazon Linux 2023  

~~ \###!  

~~ \#/ __ https://aws.amazon.com/linux/amazon-linux-2023  

~~ V~' ,->  

~~ /  

~~ .-/-/  

~/m/'  

[ec2-user@ip-10-0-0-15 ~]$ ping google.com  

PING google.com (172.253.115.138) 56(84) bytes of data.  

64 bytes from bg-in-f138.le100.net (172.253.115.138): icmp_seq=1 ttl=104 time=3.36 ms  

64 bytes from bg-in-f138.le100.net (172.253.115.138): icmp_seq=2 ttl=104 time=2.52 ms  

64 bytes from bg-in-f138.le100.net (172.253.115.138): icmp_seq=3 ttl=104 time=2.45 ms

```

Development Network

- Click create VPC
- Provide a name to VPC and provide the CIDR
- Provide the necessary configuration
- Finally VPC is created
- Go to visual subnet calculator

- provide the Network address and click update
- And divide depend upon the requirement
- Click create subnet (create 1 private, 1 public)
- Provide the name for the subnet and availability zone (private subnet name – Web; public subnet name – db)
- Provide CIDR block which was calculated
- Create 1 private subnet name – web and create 1 public subnet name – db
- Select the public subnet db separately and go to action
- Click edit subnet association and enable auto assign public IPV4 address
- And click save the changes
- Click the Create internet gateway
- Provide the name for internet gateway
- Finally internet gateway is created
- Go to action and click attach VPC
- Select the VPC which was created and click attach internet gateway
- Click the create route table for public
- Provide the name for route table
- Select the VPC which was created
- Finally route table is created
- Select the route table and go to action
- Click Edit subnet association and select the public subnet - db
- And click the save association
- Select the route table and go to routes
- Click edit routes and add route
- Select the destination as 0.0.0.0/0 and select the target as internet gateway which was created
- Click the save changes
- Click the Create NAT gateway
- Provide the name for NAT gateway
- Create the NAT gate way in the public subnet which is db
- Select the connectivity type as Public
- Finally NAT gateway is created
- Click the create route table for private
- Provide the name for route table
- Select the VPC which was created
- Finally route table is created
- Select the route table and go to action

- Click Edit subnet association and select the private subnet named web
- And click the save association
- Select the route table and go to routes
- Click edit routes and add route
- Select the destination as 0.0.0.0/0 and select the target as NAT gateway which was created
- Click the save changes
- Finally the entire VPC is created
- Create 2 EC2 instance with named web and db
- Click the launch instance
- Provide the name for the EC2 instance (web and db)
- Click the create key pair and provide the name for key pair
- Select the key pair for the EC2 instance which created
- Select the VPC which was created and select the subnet as per the Instance name
- Provide the necessary configuration
- Finally EC2 instance is created
- Select the db instance which has public IP and presented in public subnet and click connect
- Update the instance by running the command **sudo apt-get update**
- Create a file by running the command **sudo vi filename.pem**
- And paste the content of the key pair inside the file which was given in the creation of EC2 instance, save and exit the file
- Next change the permission of the key by running the command **sudo chmod 400 filename.pem**
- To connect to the private EC2 instance by running the command **sudo ssh -i filename.pem ec2-user@private IP** of the private instance (web) (Since the private Instance does not have public IP we can't connect private EC2 instance directly, So Private Ec2 instance can be connected with help of public instance (running the command which was explained in previous step) in the public EC2 instance)
- Provide **Yes** to continue and Now we are connected to private EC2 instance
- To send internet requests from private EC2 instance (web) by running the command **ping google.com** (The private EC2 instance can send the internet requests because already NAT gate was created and associated in private route table also subnet (web) is associated so it as the route to send the internet requests with the help of NAT gateway)

Resources to create [Info](#)

Create only the VPC resource or the VPC and other networking resources.

VPC only VPC and more

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

development-vpc

IPv4 CIDR block [Info](#)

- IPv4 CIDR manual input
- IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.0.0.0/24
CIDR block size must be between /16 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

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

VPC dashboard [X](#)

EC2 Global View [X](#)

Filter by VPC: [Select a 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

Details [Info](#)

VPC ID	State	DNS hostnames	DNS resolution
vpc-01bce9c70a804e274	Available	Disabled	Enabled
Tenancy	DHCP option set	Main route table	Main network ACL
Default	dopt-08bddd7986fe34e13	rtb-0feba820770f43f4e	acl-0728b2b37907dd89e
Default VPC	IPv4 CIDR	IPv6 pool	IPv6 CIDR (Network border group)
No	192.168.0.0/24	-	-
Network Address Usage metrics	Route 53 Resolver DNS Firewall rule groups	Owner ID	
Disabled	-	891377014436	

[Resource map](#) | [CIDRs](#) | [Flow logs](#) | [Tags](#) | [Integrations](#)

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

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

VPC > Subnets > Create subnet

Create subnet Info

VPC

VPC ID
Create subnets in this VPC.

Associated VPC CIDRs

IPv4 CIDRs
192.168.0.0/24

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

CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

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
 32 IPs
 < > ^ v

Tags - optional

Key	Value - optional

CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

Subnet 2 of 2

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
 32 IPs
 < > ^ v

Tags - optional

Key	Value - optional

VPC > Subnets > subnet-08756d572cbc32a0e > Edit subnet settings

Edit subnet settings Info

Subnet

Subnet ID	Name
subnet-08756d572cbc32a0e	db

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

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Internet gateways > Create internet gateway

Create internet gateway Info

An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

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="development-igw"/> <input type="button" value="Remove"/>

Add new tag

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Internet gateways > Attach to VPC (igw-03eb1861cdc8211f5)

Attach to VPC (igw-03eb1861cdc8211f5) 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

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

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.

Key	Value - <i>optional</i>
CloudShell	Feedback

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

VPC > Route tables > rtb-03e27092273f0272f > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
web	subnet-095b4dafe8da8ddd7	192.168.0.0/27	-	Main (rtb-0feba820770f43f4e)
<input checked="" type="checkbox"/> db	subnet-08756d572cbc32a0e	192.168.0.32/27	-	Main (rtb-0feba820770f43f4e)

Selected subnets

X

Cancel Save associations

VPC > Route tables > rtb-03e27092273f0272f > Edit routes

Edit routes

Destination	Target	Status	Propagated
192.168.0.0/24	local <input type="text" value="local"/> X	<input checked="" type="radio"/> Active	No
0.0.0.0/0	Internet Gateway <input type="text" value="Internet Gateway"/> X	-	No

Add route

Info You have not made any changes.

Cancel Preview Save changes

VPC dashboard X

EC2 Global View

Filter by VPC: Select a 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

Updated routes for rtb-03e27092273f0272f / development-db-route-table successfully

Details

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-03e27092273f0272f	No	subnet-08756d572cbc32a0e / db	-
VPC	Owner ID		
vpc-01bce9c70a804e274 development-vpc	891377014436		

Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Destination	Target	Status	Propagated
0.0.0.0/0	igw-03eb1861cdc8211f5	Active	No
192.168.0.0/24	local	Active	No

Both Edit routes < 1 > © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > NAT gateways > Create NAT gateway

Create NAT gateway

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

NAT gateway settings

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

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.

Connectivity type
Select a connectivity type for the NAT gateway.
 Public
 Private

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Route tables > Create route table

Create route table

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.

Key	Value - optional
-----	------------------

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Route tables > rtb-024ccdb8a403906a9 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
web	subnet-095b4dade8da8ddd7	192.168.0.0/27	-	Main (rtb-0feba820770f43f4e)
db	subnet-08756d572cbc32a0e	192.168.0.32/27	-	rtb-03e27092273f0272f / dev

Selected subnets

subnet-095b4dade8da8ddd7 / web X

Cancel **Save associations**

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC > Route tables > rtb-04a4823341864d22d > Edit routes

Edit routes

Destination	Target	Status	Propagated
10.0.0.0/24	local	Active	No
0.0.0.0/0	NAT Gateway	-	No

Add route Cancel Preview **Save changes**

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

VPC dashboard X

EC2 Global View A

Filter by VPC: Select a 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

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Updated routes for rtb-024ccd88a403906a9 / development-web-route-table successfully

Details

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-024ccd88a403906a9	No	subnet-095b4dafe8da8ddd7 / web	-
VPC	Owner ID		
vpc-01bce9c70a804e274 development-vpc	891377014436		

Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Destination	Target	Status	Propagated
0.0.0.0/0	nat-077116c4355f44d29	Active	No
192.168.0.0/24	local	Active	No

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

EC2 > Instances > Launch an instance

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: development-web 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.

Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...read more
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Launch instance Review commands

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Network settings Info

VPC - required Info
vpc-01bce9c70a804e274 (development-vpc) 192.168.0.0/24

Subnet Info
subnet-095b4dafe8da8ddd7 web
VPC: vpc-01bce9c70a804e274 Owner: 891377014436 Availability Zone: us-east-1b IP addresses available: 27 CIDR: 192.168.0.0/27

Create new subnet A

Auto-assign public IP Info
Disable

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 group

Security group name - required

Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...read more
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Launch instance Review commands

EC2 > Instances > Launch an instance

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

Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...read more
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel Launch instance Review commands

▼ 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.

VPC - required Info

vpc-01bce9c70a804e274 (development-vpc) 192.168.0.0/24

Subnet Info
subnet-08756d572cbc32a0e db
VPC: vpc-01bce9c70a804e274 Owner: 891377014436 Availability Zone: us-east-1b IP addresses available: 26 CIDR: 192.168.0.32/27

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 group

Security group name - required

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and -./@!#<>/?^_

▼ Summary

Number of instances Info
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.4.2...read more
ami-0c101f26f147fa7fd

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)

Cancel Launch instance Review commands

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

```
[ec2-user@ip-192-168-0-23 ~]$ sudo vi book.pem
[ec2-user@ip-192-168-0-23 ~]$ sudo chmod 400 book.pem
[ec2-user@ip-192-168-0-23 ~]$ sudo ssh -i book.pem ec2-user@192.168.0.23
'###'
~~\ ####\ Amazon Linux 2023
~~ \####\
~~ \###|
~~ \|/ https://aws.amazon.com/linux/amazon-linux-2023
~~ \|/ 
~~ \|/ 
Last login: Tue Apr  2 17:46:12 2024 from 192.168.0.54
[ec2-user@ip-192-168-0-23 ~]$ 
```

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

```
[ec2-user@ip-192-168-0-23 ~]$ sudo vi book.pem
[ec2-user@ip-192-168-0-23 ~]$ sudo chmod 400 book.pem
[ec2-user@ip-192-168-0-23 ~]$ sudo ssh -i book.pem ec2-user@192.168.0.23
# 
#          Amazon Linux 2023
\###\ 
\###| 
\#/  https://aws.amazon.com/linux/amazon-linux-2023
~/ 
~\_/
~~_/
~~_/
/m/` 

Last login: Tue Apr  2 17:46:12 2024 from 192.168.0.54
[ec2-user@ip-192-168-0-23 ~]$ ping google.com
PING google.com (172.253.122.102) 56(84) bytes of data.
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=1 ttl=101 time=2.85 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=2 ttl=101 time=2.19 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=3 ttl=101 time=2.12 ms

[ec2-user@ip-192-168-0-23 ~]$ sudo vi book.pem
[ec2-user@ip-192-168-0-23 ~]$ sudo chmod 400 book.pem
[ec2-user@ip-192-168-0-23 ~]$ sudo ssh -i book.pem ec2-user@192.168.0.23
# 
#          Amazon Linux 2023
\###\ 
\###| 
\#/  https://aws.amazon.com/linux/amazon-linux-2023
~/ 
~\_/
~~_/
~~_/
/m/` 

Last login: Tue Apr  2 17:46:12 2024 from 192.168.0.54
[ec2-user@ip-192-168-0-23 ~]$ ping google.com
PING google.com (172.253.122.102) 56(84) bytes of data.
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=1 ttl=101 time=2.85 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=2 ttl=101 time=2.19 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=3 ttl=101 time=2.12 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=4 ttl=101 time=2.26 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=5 ttl=101 time=2.15 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=6 ttl=101 time=2.20 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=7 ttl=101 time=2.12 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=8 ttl=101 time=2.18 ms
64 bytes from bh-in-f102.1e100.net (172.253.122.102): icmp_seq=9 ttl=101 time=2.13 ms

[ec2-user@ip-192-168-0-23 ~]$ CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
```

Peering Connection between production network and Development Network

- Click create peering connection
- Provide a name for peering connection
- Select the request production VPC which was created
- Next select my account in the VPC to peer with account
- Select the accepter development VPC which was created
- Provide the VPC ID of the accepter development VPC
- Finally peering connection is created
- Now the peering connection request send to accepter development VPC so select the accepter development VPC and go to action and click accept request
- Now there is peering connection between both production network VPC and Development network VPC
- Click the create route table for db subnet in production network VPC
- Provide the name for route table
- Select the Production VPC which was created
- Finally route table is created for db in production network VPC

- Select the route table of db which was created and go to action
- Click Edit subnet association and select the private subnet of db
- Go to the production network route table of db which was created and click edit routes
- Provide the CIDR of development network VPC as destination and select the peering connection which was created as target
- Click the save changes
- Go to the development network route table of db and click edit routes
- Provide the CIDR of production network VPC as destination and select the peering connection which was created as target
- Click the save changes
- Go to the security group of development network EC2 instance of db
- And click the edit inbound rules and click the add a rule
- Select all ICMP –IPV4 in type and provide the CIDR of production network VPC in source
- Click the save rules
- Now connect to public EC2 instance web of production network
- Create a file by running the command **sudo vi filename.pem**
- And paste the content of the key pair inside the file which was given in the creation of EC2 instance, save and exit the file
- Next change the permission of the key by running the command **sudo chmod 400 filename.pem**
- To connect to the private EC2 instance by running the command **sudo ssh -i filename.pem ec2-user@private IP** of the private instance (db) (Since the private Instance does not have public IP we can't connect private EC2 instance directly, So Private Ec2 instance can be connect with help of public instance (running the command which was explained in previous step) in the public EC2 instance)
- Provide **Yes** to continue and Now we are connected to private EC2 instance of db in production network
- Now to connect to the db instance in development network VPC by running the command **ping public IP address** of db instance in development network VPC (The db EC2 instance in production network VPC can connect with db instance in development network VPC because already peering connection was created between production network VPC and development network VPC and also made the necessary changes in the route table and in security group of EC2 instance)



Create peering connection

A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them privately.

Info

Peering connection settings

Name - optional

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

Select a local VPC to peer with

VPC ID (Requester)

Select another VPC to peer with

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

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

Select a local VPC to peer with

VPC ID (Requester)

VPC CIDRs for vpc-03bb62f7805312425 (production-vpc)

CIDR	Status	Status reason
10.0.0.0/24	Associated	-

Select another VPC to peer with

Account

- My account
- Another account

Region

- This Region (us-east-1)
- Another Region

VPC ID (Acceptor)

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

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

 Associated
-

Select another VPC to peer with

Account

- My account
- Another account

Region

- This Region (us-east-1)
- Another Region

VPC ID (Acceptor)

VPC CIDRs for vpc-01bce9c70a804e274 (development-vpc)

CIDR	Status	Status reason
192.168.0.0/24	Associated	-

Tags

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

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

Peering connections (1) Info

Create peering connection

Name	Peering connection ID	Status	Requester VPC
production-development-peering	pcx-048fbfb84bed72cbe	Active	vpc-03bb62f7805312425 / pro

Select a peering connection above

Route tables

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.

Key
Value - optional

Edit routes

Destination	Target	Status	Propagated
10.0.0.0/24	local <input type="text" value="local"/> <input type="button" value="X"/>	Active	No
192.168.0.0/24	Peer Connection <input type="text" value="pcx-048fbfb84bed72cbe"/> <input type="button" value="X"/>	-	No

Add route

Save changes

VPC > Route tables > rtb-03e27092273f0272f > Edit routes

Edit routes

Destination	Target	Status	Propagated
192.168.0.0/24	local	Active	No
Q 10.0.0.0/24	Peering Connection	Active	No
	Q pcx-048fbfb84bed72cbe		Remote

Add route

Cancel Preview Save changes

VPC > Route tables > rtb-03e27092273f0272f > Edit routes

Edit routes

Destination	Target	Status	Propagated
192.168.0.0/24	local	Active	No
Q 10.0.0.0/24	Peering Connection	Active	No
Q 0.0.0.0/0	Internet Gateway	-	No
	Q igw-03eb1861cdc8211fs		Remote

Add route

Cancel Preview Save changes

VPC > Security groups > sg-06893d2b6c04595b0 > Edit rules

Edit rules

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-06893d2b6c04595b0	SSH	TCP	22	Cu... ▾	0.0.0.0/0 X
sgr-0b2ab07ba0c340ada	HTTP	TCP	80	Cu... ▾	0.0.0.0/0 X
sgr-07ba87c9494fb2063	Custom ICMP - IPv4	All	All	Cu... ▾	10.0.0.0/24 X

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 X

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

```
[ec2-user@ip-10-0-0-151 ~]$ sudo ssh -i book.pem ec2-user@10.0.0.112
The authenticity of host '10.0.0.112 (10.0.0.112)' can't be established.
ED25519 key fingerprint is SHA256:3vs/kPRQJOjhJi/3NUwXN/bJMMlwvnla7f7IwXV+S30.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.0.0.112' (ED25519) to the list of known hosts.

'      #
~\ _ #####_      Amazon Linux 2023
~~ \#####\
~~ \###|
~~ \|/   https://aws.amazon.com/linux/amazon-linux-2023
~~ V~'-->
~~ /_
~~ /_/
~~ /m/,'

[ec2-user@ip-10-0-0-112 ~]$
```

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

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

```
[ec2-user@ip-10-0-0-151 ~]$ sudo ssh -i book.pem ec2-user@10.0.0.112
The authenticity of host '10.0.0.112 (10.0.0.112)' can't be established.
ED25519 key fingerprint is SHA256:3vs/kPRQJOjhJi/3NUwXN/bJMMlwvnla7f7IwXV+S30.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.0.0.112' (ED25519) to the list of known hosts.

'      #
~\ _ #####_      Amazon Linux 2023
~~ \#####\
~~ \###|
~~ \|/   https://aws.amazon.com/linux/amazon-linux-2023
~~ V~'-->
~~ /_
~~ /_/
~~ /m/,'

[ec2-user@ip-10-0-0-112 ~]$ ping 192.168.0.54
PING 192.168.0.54 (192.168.0.54) 56(84) bytes of data.
64 bytes from 192.168.0.54: icmp_seq=1 ttl=127 time=1.12 ms
64 bytes from 192.168.0.54: icmp_seq=2 ttl=127 time=0.548 ms
64 bytes from 192.168.0.54: icmp_seq=3 ttl=127 time=0.518 ms
64 bytes from 192.168.0.54: icmp_seq=4 ttl=127 time=0.600 ms
```

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

© 2024, Amazon Web Services, Inc. or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

