

Name tag - *optional*

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

IPv4 CIDR block [Info](#)

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

IPv4 CIDR

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](#)

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*



Name tag - *optional*

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

IPv4 CIDR block [Info](#)

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

IPv4 CIDR

IPv6 CIDR block [Info](#)

- ☒ No IPv6 CIDR block
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- ☐ Amazon-provided IPv6 CIDR block
- ☐ IPv6 CIDR owned by me

Tenancy [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*



Filter VPCs

<input type="checkbox"/>	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	IPv6 po
<input type="checkbox"/>	DevelopmentNetworkVPC	vpc-03c8a9c3c330d6573	✔ Available	20.0.0.0/16	–	–
<input type="checkbox"/>	ProductionNetworkVPC	vpc-080e149b294e6eaf6	✔ Available	10.0.0.0/16	–	–
<input type="checkbox"/>	–	vpc-0cfb04a21d8b98edf	✔ Available	172.31.0.0/16	–	–

VPC ID

Create subnets in this VPC.

vpc-080e149b294e6eaf6 (ProductionNetworkVPC) ▼

Associated VPC CIDRs

IPv4 CIDRs

10.0.0.0/16

Subnet settings

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.

app1

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 [Info](#)

Q 10.0.1.0/24 X

▼ Tags - optional

Key

Value optional

Subnets (5) [Info](#)

Actions ▾

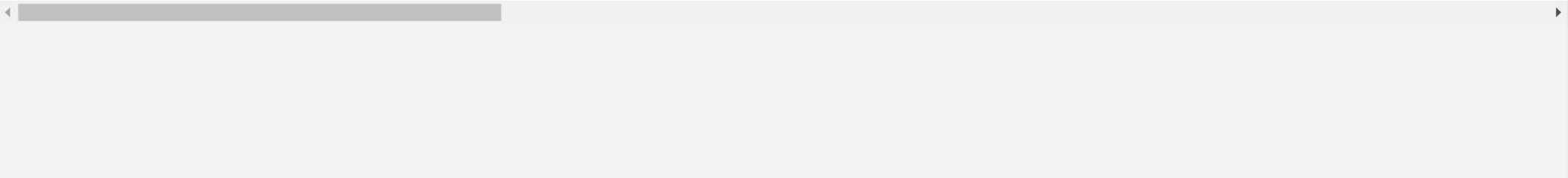
Create subnet

Filter subnets

VPC: vpc-080e149b294e6eaf6

Clear filters

<input type="checkbox"/>	Name ▾	Subnet ID ▾	State ▾	VPC ▾	IPv4 CIDR ▾	IPv6 CIDR
<input type="checkbox"/>	dbcache	subnet-02d4e09dcecb72f3c	✔ Available	vpc-080e149b294e6eaf6 Pro...	10.0.3.0/24	–
<input type="checkbox"/>	app1	subnet-08eea64bdb902c8ce	✔ Available	vpc-080e149b294e6eaf6 Pro...	10.0.1.0/24	–
<input type="checkbox"/>	db	subnet-07b7658b9b24604a7	✔ Available	vpc-080e149b294e6eaf6 Pro...	10.0.4.0/24	–
<input type="checkbox"/>	web	subnet-03d73d46bad6096f3	✔ Available	vpc-080e149b294e6eaf6 Pro...	10.0.5.0/24	–
<input type="checkbox"/>	app2	subnet-07f39da3d64a2816c	✔ Available	vpc-080e149b294e6eaf6 Pro...	10.0.2.0/24	–



igw-06a9fc8acc3079267 / igw

Actions ▾

Details [Info](#)

Internet gateway ID 📄 igw-06a9fc8acc3079267	State ✔ Attached	VPC ID vpc-080e149b294e6eaf6 ProductionNetworkVPC	Owner 📄 997980677439
--	---------------------	--	-------------------------

Tags

🔍 Search tags

Manage tags

< 1 > ⚙️

Key	Value
Name	igw

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.

publicRT

VPC

The VPC to use for this route table.

vpc-080e149b294e6eaf6 (ProductionNetworkVPC) ▼

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

🔍 publicRT ✕

Remove

Add new tag

You can add 49 more tags.

Cancel

Create route table

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/5)

Q Filter subnet associations

< 1 > ⚙

	Name ▾	Subnet ID ▾	IPv4 CIDR ▾	IPv6 CIDR ▾	Route table ID ▾
<input type="checkbox"/>	dbcache	subnet-02d4e09dcecb72f3c	10.0.3.0/24	–	Main (rtb-0ac4708a15032d431)
<input type="checkbox"/>	app1	subnet-08eea64bdb902c8ce	10.0.1.0/24	–	Main (rtb-0ac4708a15032d431)
<input type="checkbox"/>	db	subnet-07b7658b9b24604a7	10.0.4.0/24	–	Main (rtb-0ac4708a15032d431)
<input checked="" type="checkbox"/>	web	subnet-03d73d46bad6096f3	10.0.5.0/24	–	Main (rtb-0ac4708a15032d431)
<input type="checkbox"/>	app2	subnet-07f39da3d64a2816c	10.0.2.0/24	–	Main (rtb-0ac4708a15032d431)

Selected subnets

subnet-03d73d46bad6096f3 / web ✕

Route table settings

Name - *optional*

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

Private-RT

VPC

The VPC to use for this route table.

vpc-080e149b294e6eaf6 (ProductionNetworkVPC) ▼

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*

🔍

Name

✕

🔍

Private-RT

✕

Remove

Add new tag

You can add 49 more tags.

Cancel

Create route table

✓ You have successfully updated subnet associations for rtb-07257903a47129422 / Private-RT.

Routes

Subnet associations

Edge associations

Route propagation

Tags

Explicit subnet associations (2)

Edit subnet associations

🔍 Find subnet association

< 1 > ⚙️

Subnet ID ▾	IPv4 CIDR ▾	IPv6 CIDR ▾
subnet-02d4e09dcecb72f3c / dbcache	10.0.3.0/24	–
subnet-08eea64bdb902c8ce / app1	10.0.1.0/24	–

Subnets without explicit associations (2)

Edit subnet associations

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

🔍 Find subnet association

< 1 > ⚙️

Subnet ID ▾	IPv4 CIDR ▾	IPv6 CIDR ▾
subnet-07b7658b9b24604a7 / db	10.0.4.0/24	–
subnet-07f39da3d64a2816c / app2	10.0.2.0/24	–

✓ Elastic IP address 18.189.15.37 (eipalloc-063caad5c49649850) allocated.



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.

NATGW

The name can be up to 256 characters long.

Subnet

Select a subnet in which to create the NAT gateway.

subnet-03d73d46bad6096f3 (web) ▼

Connectivity type

Select a connectivity type for the NAT gateway.

☒ Public

☐ Private

Elastic IP allocation ID [Info](#)

Assign an Elastic IP address to the NAT gateway.

eipalloc-063caad5c49649850 ▼

Allocate Elastic IP

Edit routes

Destination	Target	Status	Propagated
10.0.0.0/16	<div><div>Q local</div><div>X</div></div>	<div><div>✓</div>Active</div>	No
<div><div>Q 0.0.0.0/0</div><div>X</div></div>	<div><div>Q nat-016fd9ac21fd6aab9</div><div>X</div></div>	-	No <div>Remove</div>
<div>Add route</div>			

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/5)

	Name ▾	Subnet ID ▾	IPv4 CIDR ▾	IPv6 CIDR ▾	Route table ID ▾
<input type="checkbox"/>	dbcache	subnet-02d4e09dcecb72f3c	10.0.3.0/24	–	rtb-07257903a47129422 / Private-RT
<input type="checkbox"/>	app1	subnet-08eea64bdb902c8ce	10.0.1.0/24	–	rtb-07257903a47129422 / Private-RT
<input checked="" type="checkbox"/>	db	subnet-07b7658b9b24604a7	10.0.4.0/24	–	Main (rtb-0ac4708a15032d431)
<input type="checkbox"/>	web	subnet-03d73d46bad6096f3	10.0.5.0/24	–	rtb-076e69abc5f7e2856 / publicRT
<input checked="" type="checkbox"/>	app2	subnet-07f39da3d64a2816c	10.0.2.0/24	–	Main (rtb-0ac4708a15032d431)

Selected subnets

subnet-07f39da3d64a2816c / app2 ✕

subnet-07b7658b9b24604a7 / db ✕

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances	<input type="text" value="1"/>	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	<div>vpc-080e149b294e6eaf6 ProductionNetworkVPC Create new VPC</div>	
Subnet	<div>subnet-08eea64bdb902c8ce app1 us-east-2a Create new subnet</div> <div>251 IP Addresses available</div>	
Auto-assign Public IP	<div>Use subnet setting (Disable)</div>	
Hostname type	<div>Use subnet setting (IP name)</div>	
DNS Hostname	<div><input checked="" type="checkbox"/> Enable IP name IPv4 (A record) DNS requests</div> <div><input checked="" type="checkbox"/> Enable resource-based IPv4 (A record) DNS requests</div> <div><input type="checkbox"/> Enable resource-based IPv6 (AAAA record) DNS requests</div>	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	<div>Open</div>	
Domain join directory	<div>No directory</div> <div>Create new directory</div>	

[Cancel](#)

[Previous](#)

[Review and Launch](#)

[Next: Add Storage](#)

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a **new** security group
☐ Select an **existing** security group

Security group name:

Description:

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ	Description ⓘ	
<div>SSH</div>	<div>TCP</div>	<div>22</div>	<div>Custom</div> <div>0.0.0.0/0</div>	<div>e.g. SSH for Admin Desktop</div>	<div>✕</div>
<div>HTTP</div>	<div>TCP</div>	<div>80</div>	<div>Custom</div> <div>0.0.0.0/0, ::/0</div>	<div>e.g. SSH for Admin Desktop</div>	<div>✕</div>

Add Rule

Warning

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

Search

< 1 >

<input type="checkbox"/>	Name ▼	Instance ID ▲	Instance state ▼	Instance type ▼	Status check	Alarm status	Availability Zone ▼	Public IPv4 DNS
<input type="checkbox"/>	dbcache	i-082da9b398b662290	Running	t2.micro	Initializing	No alarms +	us-east-2a	–
<input type="checkbox"/>	db	i-0692a3e9aa6cf8bbb	Running	t2.micro	Initializing	No alarms +	us-east-2a	–
<input type="checkbox"/>	app2	i-0c61f002ba610f2b7	Running	t2.micro	2/2 checks passed	No alarms +	us-east-2a	–
<input type="checkbox"/>	web	i-093954f96dfcccdade	Running	t2.micro	–	No alarms +	us-east-2a	–
<input type="checkbox"/>	app1	i-05cf7ccf1babb347e	Running	t2.micro	2/2 checks passed	No alarms +	us-east-2a	–

Select an instance

=

×

Instances (1/5) [Info](#)



Connect

Instance state ▼

Actions ▼

Launch instances



Q Search

< 1 > ⚙

	Name ▼	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status	Availability Zone ▼	Public IPv4 DNS
<input type="checkbox"/>	dbcache	i-082da9b398b662290	✓ Running 🔍	t2.micro	✓ 2/2 checks passed	No alarms +	us-east-2a	–
<input type="checkbox"/>	db	i-0692a3e9aa6cf8bbb	✓ Running 🔍	t2.micro	⌚ Initializing	No alarms +	us-east-2a	–
<input checked="" type="checkbox"/>	app2	i-0c61f002ba610f2b7	✓ Running 🔍	t2.micro	✓ 2/2 checks passed	No alarms +	us-east-2a	–
<input type="checkbox"/>	web	i-093954f96dfccdae	✓ Running 🔍	t2.micro	⌚ Initializing	No alarms +	us-east-2a	–
<input type="checkbox"/>	app1	i-05cf7ccf1babb347e	✓ Running 🔍	t2.micro	✓ 2/2 checks passed	No alarms +	us-east-2a	–

Instance: i-0c61f002ba610f2b7 (app2)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary [Info](#)

Instance ID i-0c61f002ba610f2b7 (app2)	Public IPv4 address –	Private IPv4 addresses 10.0.2.133
IPv6 address –	Instance state ✓ Running	Public IPv4 DNS –
Hostname type	Private IP DNS name (IPv4 only)	Answer private resource DNS name

```
PZmv0/0CgYBUAUWhA3Iip7n5UEIT65AChfqCCGV4QfrMc460hZUDd7yk67hB0ka+
CP3awrClXtBH6D8AfEnY8ivsQlqj9s4+8loybKx2nSqsQdME3aOPkVphCkSf6uf
A0jZRAsTmFnytZcCWZ9B6bbeQ6N0rg1B12fMiPiMHstfY1QuoivSHA==
-----END RSA PRIVATE KEY-----
```

```
'virginia.pem" [New] 27L, 1679B written
[ec2-user@ip-10-0-5-132 ~]$ chmod 400 virginia.pem
[ec2-user@ip-10-0-5-132 ~]$ ssh -i virginia.pem ec2-user@10.0.2.247
The authenticity of host '10.0.2.247 (10.0.2.247)' can't be established.
ECDSA key fingerprint is SHA256:28URdilyevluaX1LveHPK6iPtqoc8MJVeeRSIhuut2Q.
ECDSA key fingerprint is MD5:03:7c:7b:a8:75:82:ce:e9:00:bf:1e:83:98:65:63:c6.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.0.2.247' (ECDSA) to the list of known hosts.
```

```
  _ |  _ | _ )
 _ | ( _ | /   Amazon Linux 2 AMI
 _ | \ _ | _ |
```

```
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-2-247 ~]$ ping google.com
PING google.com (142.251.111.139) 56(84) bytes of data.
```

✓ The following internet gateway was created: igw-0a34688e445c1b8ac - IGWDevlopmntNetworkVPC. You can now attach to a VPC to enable the VPC to communicate with the internet.

Attach to a VPC



VPC > Internet gateways > igw-0a34688e445c1b8ac

igw-0a34688e445c1b8ac / IGWDevlopmntNetworkVPC

Actions ▾

Details [Info](#)

Internet gateway ID

igw-0a34688e445c1b8ac

State

Detached

VPC ID

-

Owner

988925067592

Tags

Manage tags

Search tags

< 1 >



Key

Value

✔ Updated routes for rtb-0f38ee0ab9b75ab53 / DevelopmentNetwork-PublicRT successfully

► Details

DevelopmentNetworkVPC

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Edit routes

🔍 Filter routes

Both ▼

< 1 >



Destination ▼	Target ▼	Status ▼	Propagated ▼
20.0.0.0/16	local	✔ Active	No
0.0.0.0/0	igw-0a34688e445c1b8ac	✔ Active	No

 New VPC Experience
Tell us what you think

VPC Dashboard

EC2 Global View New

Filter by VPC:

 Select a VPC

▼ VIRTUAL PRIVATE CLOUD

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

Carrier Gateways

DHCP Options Sets

Elastic IPs

Managed Prefix Lists

✓ You have successfully updated subnet associations for rtb-0666bc828990bef94 / DevelopmentNetwork-PrivateRT.

VPC

[vpc-02bca24abf01223b8](#) |
[DevelopmentNetworkVPC](#)

Owner ID

 988925067592

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (1)

Edit routes

 Filter routes

Both ▼

< 1 >



Destination ▼	Target ▼	Status ▼	Propagated ▼
20.0.0.0/16	local	✓ Active	No

▼ Instances

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Scheduled Instances

Capacity Reservations

Instances (2) Info



Connect

Instance state ▼

Actions ▼

Launch instances



 Search

< 1 >



VPC ID = vpc-02bca24abf01223b8



Clear filters

<input type="checkbox"/>	Name ▼	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status	Av
<input type="checkbox"/>	web	i-015cc228c6460e78d	 Running  	t2.micro	 Initializing	No alarms +	us
<input type="checkbox"/>	db	i-0622b57695774b9c4	 Running  	t2.micro	 Initializing	No alarms +	us

Select an instance




```
PZmv0/0CgYBUAuWhA3Iip7n5UEIT65AChfqCCGV4QfrMc460hZUDd7yk67hB0ka+
CP3awrCLXtBH6D8AfEnY8ivsQlqj9s4+8loybKx2nSqsQdME3a0PkVphCkSf6uf
A0jZRAsTmFnytZcCWZ9B6bbeQ6N0rg1B12fMiPiMHstfY1QuoivSHA==
-----END RSA PRIVATE KEY-----
```

```
~
~
~
~
~
"virginia.pem" [New] 27L, 1679B written
[ec2-user@ip-20-0-1-209 ~]$ chmod 400 virginia.pem
[ec2-user@ip-20-0-1-209 ~]$ ssh -i virginia.pem ec2-user@20.0.2.13
The authenticity of host '20.0.2.13 (20.0.2.13)' can't be established.
ECDSA key fingerprint is SHA256:oF2I0uYKIGA4RyLQuUmiRXtYXIivIbtYFPkt3a6Su58.
ECDSA key fingerprint is MD5:c3:cd:b3:c2:86:c6:58:21:c4:dc:5d:7d:f9:f0:f6:46.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '20.0.2.13' (ECDSA) to the list of known hosts.
```

```
  _ | _ | _ )
  _ | ( _ | /
  _ | \ _ | _ |
Amazon Linux 2 AMI
```

```
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-20-0-2-13 ~]$ ping google.com
PING google.com (142.251.111.138) 56(84) bytes of data.
```

Peering connection settings

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

Prod-Dev-VPC

Select a local VPC to peer with

VPC ID (Requester)

vpc-02278544a938da208 (ProductionNetworkVPC) ▼

VPC CIDRs for vpc-02278544a938da208 (ProductionNetworkVPC)

CIDR	Status	Status reason
10.0.0.0/16	✔ Associated	-

Select another VPC to peer with

- Account
- ☒ My account
- ☐ Another account

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

▼ Instances

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Scheduled Instances

Capacity Reservations

EC2 > Instances > i-0320040f42343a234

Instance summary for i-0320040f42343a234 (db)

[Info](#)



Connect

Instance state ▼

Actions ▼

Updated less than a minute ago

Instance ID

 i-0320040f42343a234 (db)

IPv6 address

–

Hostname type

IP name: ip-10-0-4-21.ec2.internal

Instance type

t2.micro

AWS Compute Optimizer finding

 Opt-in to AWS Compute Optimizer for recommendations. | [Learn more](#) 


Public IPv4 address

–

Instance state

 Running

Private IP DNS name (IPv4 only)

 ip-10-0-4-21.ec2.internal

Elastic IP addresses

–

IAM Role

–

Private IPv4 addresses

 10.0.4.21

Public IPv4 DNS

–

Answer private resource DNS name

IPv4 (A)

VPC ID

 vpc-02278544a938da208
(ProductionNetworkVPC) 

Subnet ID

 subnet-0aeb334a82b59b616 (db) 

```
[ec2-user@ip-20-0-2-13 ~]$ chmod 400 virginia.pem  
[ec2-user@ip-20-0-2-13 ~]$ ssh -i virginia.pem ec2-user@10.0.4.21
```

Edit routes

Destination	Target	Status	Propagated
20.0.0.0/16	<div><div>Q</div><div>local</div><div>X</div></div>	✔ Active	No
<div><div>Q</div><div>10.0.0.0/16</div><div>X</div></div>	<div><div>Q</div><div>pcx-</div><div>X</div></div> <div>pcx-0ba11f262f724b4c4 (Prod-Dev-VPC)</div> <div>pcx-0ba11f262f724b4c4 (Prod-Dev-VPC)</div>	-	No <div>Remove</div>
<div>Add route</div>			

```
[ec2-user@ip-20-0-2-13 ~]$ chmod 400 virginia.pem
[ec2-user@ip-20-0-2-13 ~]$ ssh -i virginia.pem ec2-user@10.0.4.21
ssh: connect to host 10.0.4.21 port 22: Connection timed out
[ec2-user@ip-20-0-2-13 ~]$ ssh -i virginia.pem ec2-user@10.0.4.21
ssh: connect to host 10.0.4.21 port 22: Connection timed out
[ec2-user@ip-20-0-2-13 ~]$ ssh -i virginia.pem ec2-user@10.0.4.21
The authenticity of host '10.0.4.21 (10.0.4.21)' can't be established.
ECDSA key fingerprint is SHA256:aKPVftImCe22JAe/L82AWp/70+40YQ7T6TgvasxHe7g.
ECDSA key fingerprint is MD5:82:fc:bc:c5:4b:8d:b1:e7:7b:5e:db:17:35:b8:49:99.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.0.4.21' (ECDSA) to the list of known hosts.
```

```
  _|  ( _|_ )
 _|  ( _|_ /  Amazon Linux 2 AMI
 _| \ _| _|
```

<https://aws.amazon.com/amazon-linux-2/>

```
[ec2-user@ip-10-0-4-21 ~]$ █
```