

VPC creation:

aws

Services

Search [Alt+S]

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.

21A91A0405-vpc

IPv4 CIDR block [Info](#)

☒ IPv4 CIDR manual input

☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR

10.0.0.0/16

IPv6 CIDR block [Info](#)

☒ No IPv6 CIDR block

☐ IPAM-allocated IPv6 CIDR block

☐ Amazon-provided IPv6 CIDR block

☐ IPv6 CIDR owned by me

You successfully created vpc-02f9903181a543d52 / 21A91A0405-vpc

VPC > Your VPCs > vpc-02f9903181a543d52

vpc-02f9903181a543d52 / 21A91A0405-vpc [Actions](#)

Details [Info](#)

VPC ID vpc-02f9903181a543d52	State Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-0084ea7dc7e6e8d48	Main route table rtb-0295b3c2d26a0910d	Main network ACL acl-0449e7a6a960441bf
Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool -	IPv6 CIDR (Network border group) -
Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups Failed to load rule groups	Owner ID 589207354552	

[Resource map](#) [New](#)

CIDRs

Flow logs

Tags

Resource map [Info](#)

VPC [Show details](#)
Your AWS virtual network

Subnets (0)
Subnets within this VPC

Route tables (1)
Route network traffic to resources

Ne
Co

Create subnets for Availability Zone A in 10.0.0.0/25 and 10.0.0.128/25 :

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.

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.

Use: "10.0.0.0/25"

▼ Tags - *optional*

Key

Value - *optional*

Remove

Add new tag

You can add 49 more tags.

Remove

Add new subnet

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.

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 [Info](#)

▼ Tags - optional

Key

Value - optional

Remove

Add new tag

You can add 49 more tags.

Remove

Add new subnet

Create subnets for Availability Zone B in 10.0.1.0/25 and 10.0.1.128/25 :

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.

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 [Info](#)

► **Tags - optional**

Remove

Add new subnet

CancelCreate subnet

Specify the CIDR blocks and Availability Zone for the subnet.

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.

Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 CIDR block [Info](#)

► Tags - *optional*

Remove

[Add new subnet](#)

Cancel

Create subnet

Subnets (4/11) Info

< 1 >

⚙️

<input checked="" type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR
<input checked="" type="checkbox"/>	public subnet 2	subnet-07b7457606b34775b	Available	vpc-0ea0a09068609f817 Wor...	10.0.1.0/25
<input type="checkbox"/>	-	subnet-0ec0d94d0446fcfcf	Available	vpc-06b1f373672cb208f	172.31.64.0/20
<input type="checkbox"/>	-	subnet-0b26b7443d3ecc9d2	Available	vpc-06b1f373672cb208f	172.31.16.0/20
<input checked="" type="checkbox"/>	public subnet 1	subnet-0ca7c2186cb33ed6c	Available	vpc-02f9903181a543d52 21A...	10.0.0.0/25
<input checked="" type="checkbox"/>	private subnet 1	subnet-001d8e615334b048c	Available	vpc-02f9903181a543d52 21A...	10.0.0.128/25
<input checked="" type="checkbox"/>	private subnet 2	subnet-030cadbcfc5d0d972	Available	vpc-02f9903181a543d52 21A...	10.0.1.128/25
<input type="checkbox"/>	Work Public Subnet	subnet-0afbd586aa5b7189f	Available	vpc-0ea0a09068609f817 Wor...	10.0.0.0/24

Subnets: subnet-07b7457606b34775b, subnet-0ca7c2186cb33ed6c, subnet-001d8e615334b048c, subnet-030cadbcfc5d0d972

🔍

🔍



🔍

Make private subnets to public :

[VPC](#) > [Subnets](#) > [subnet-0ca7c2186cb33ed6c](#) > Edit subnet settings

Edit subnet settings [Info](#)

Subnet

Subnet ID	Name
 subnet-0ca7c2186cb33ed6c	 public subnet 1

Auto-assign IP settings [Info](#)

Enable the auto-assign IP settings to automatically request a public IPv4 or IPv6 address for a new network interface 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.



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

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

Hostname type [Info](#)

Edit subnet settings [Info](#)

Subnet

Subnet ID	Name
 subnet-07b7457606b34775b	 public subnet 2

Auto-assign IP settings [Info](#)

Enable the auto-assign IP settings to automatically request a public IPv4 or IPv6 address for a new network interface 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.

☐ 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

Create route table :

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.

21A91A04O5 rt1

VPC

The VPC to use for this route table.

vpc-02f9903181a543d52 (21A91A04O5-vpc)

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 21A91A04O5 rt1

X

Remove

Add new tag

You can add 49 more tags.

Cancel

Create route table

Associate subnets :

VPC > Route tables > rtb-05c9827837849ae9a > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (4/4)

Q Filter subnet associations

<input checked="" type="checkbox"/>	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>	private subnet 2	subnet-0dad93673d36159b5	10.0.1.128/25	-	Main (rtb-0295b3c2d26a0910d)
<input checked="" type="checkbox"/>	public subnet 2	subnet-0301508ad5810483d	10.0.1.0/25	-	Main (rtb-0295b3c2d26a0910d)
<input checked="" type="checkbox"/>	public subnet 1	subnet-0ca7c2186cb33ed6c	10.0.0.0/25	-	Main (rtb-0295b3c2d26a0910d)
<input checked="" type="checkbox"/>	private subnet 1	subnet-001d8e615334b048c	10.0.0.128/25	-	Main (rtb-0295b3c2d26a0910d)

Selected subnets

subnet-001d8e615334b048c / private subnet 1

subnet-0ca7c2186cb33ed6c / public subnet 1

subnet-0301508ad5810483d / public subnet 2

subnet-0dad93673d36159b5 / private subnet 2

Cancel

Save associations

Create Internet Gateway :

[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="21A91A04O5 igw"/>	<input type="button" value="Remove"/>

You can add 49 more tags.

Attach to VPC :

[VPC](#) > [Internet gateways](#) > Attach to VPC (igw-05214bcd4e77d9be9)

Attach to VPC (igw-05214bcd4e77d9be9) [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

Add Internet Gateway to route to enable internet connection:

VPC > Route tables > rtb-05c9827837849ae9a > Edit routes

Edit routes

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No
0.0.0.0/0	igw-05214bcd4e77d9be9	-	No

[Add route](#)

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

Launch bastion host in AZ A:

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

21A91A04O5 bastion [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

[Recents](#) | [Quick Start](#)

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Li

[Browse more AMIs](#)

udShell Feedback Language

Launch instance for public server in AZ B :

[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 below

[Recents](#) | [Quick Start](#)

Amazon

macOS

Ubuntu

Windows

Red Hat

SUSE Li

Launch instance for private server 2 in AZ B :

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

db server 2

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

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

Recents

Quick Start

All instances are created

Instances (4/5)

Info

Refresh

Connect

Instance state

Actions

Launch instances

Find instance by attribute or tag (case-sensitive)

< 1 >

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
<input checked="" type="checkbox"/>	21A91A0405 ...	i-0da6fd02574b92ea3	Running	t2.micro	Initializing	No alarms	us-east-1a	-
<input type="checkbox"/>	Bastion Host	i-0f9026dc4f4099ddc	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-34-203-
<input checked="" type="checkbox"/>	web server	i-081c2ce4176c36f10	Running	t2.micro	Initializing	No alarms	us-east-1b	-
<input checked="" type="checkbox"/>	db server 2	i-0a5b0edd19f24cc99	Pending	t2.micro	-	No alarms	us-east-1b	-
<input checked="" type="checkbox"/>	db server 1	i-04cfb46e65be4b08b	Running	t2.micro	Initializing	No alarms	us-east-1a	-

Instances: i-0da6fd02574b92ea3 (21A91A0405 bastion), i-081c2ce4176c36f10 (web server), i-0a5b0edd19f24cc99 (db server 2), i-04cfb46e65be4b08b (db server 1)

Monitoring

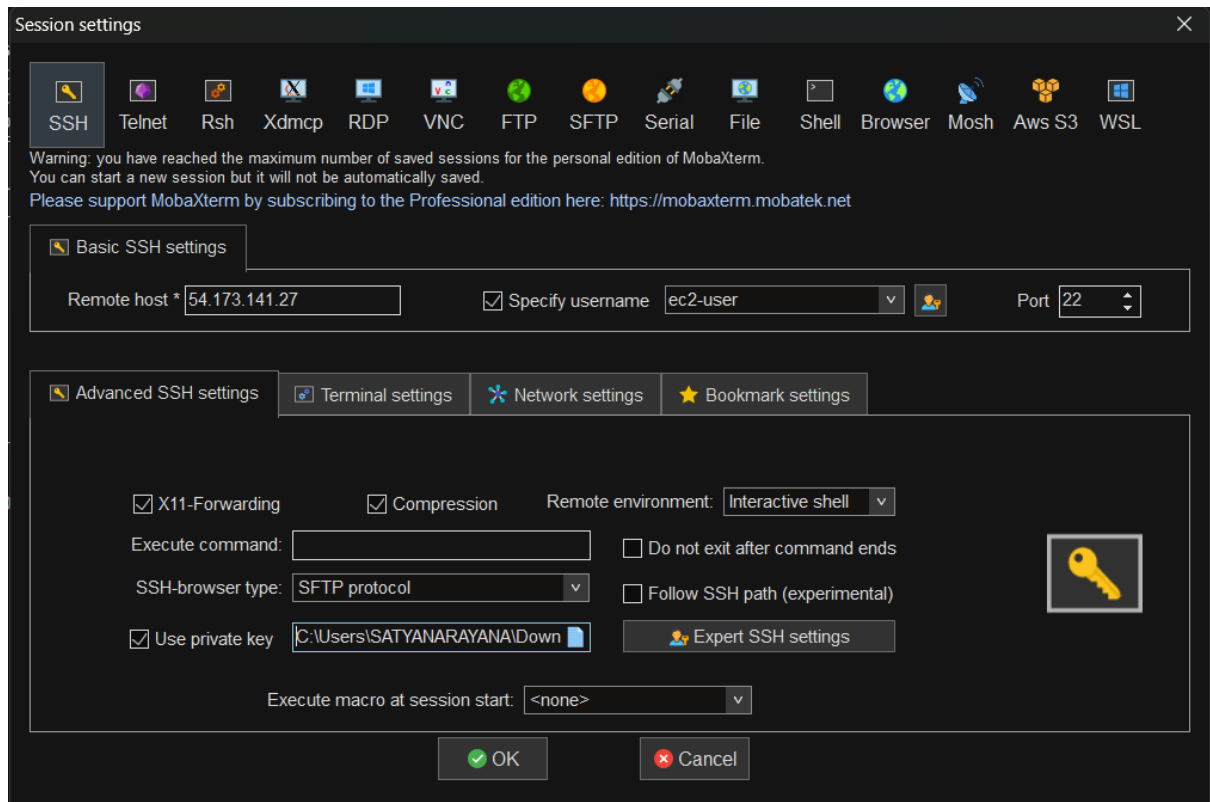
1h 3h 12h 1d 3d 1w Custom

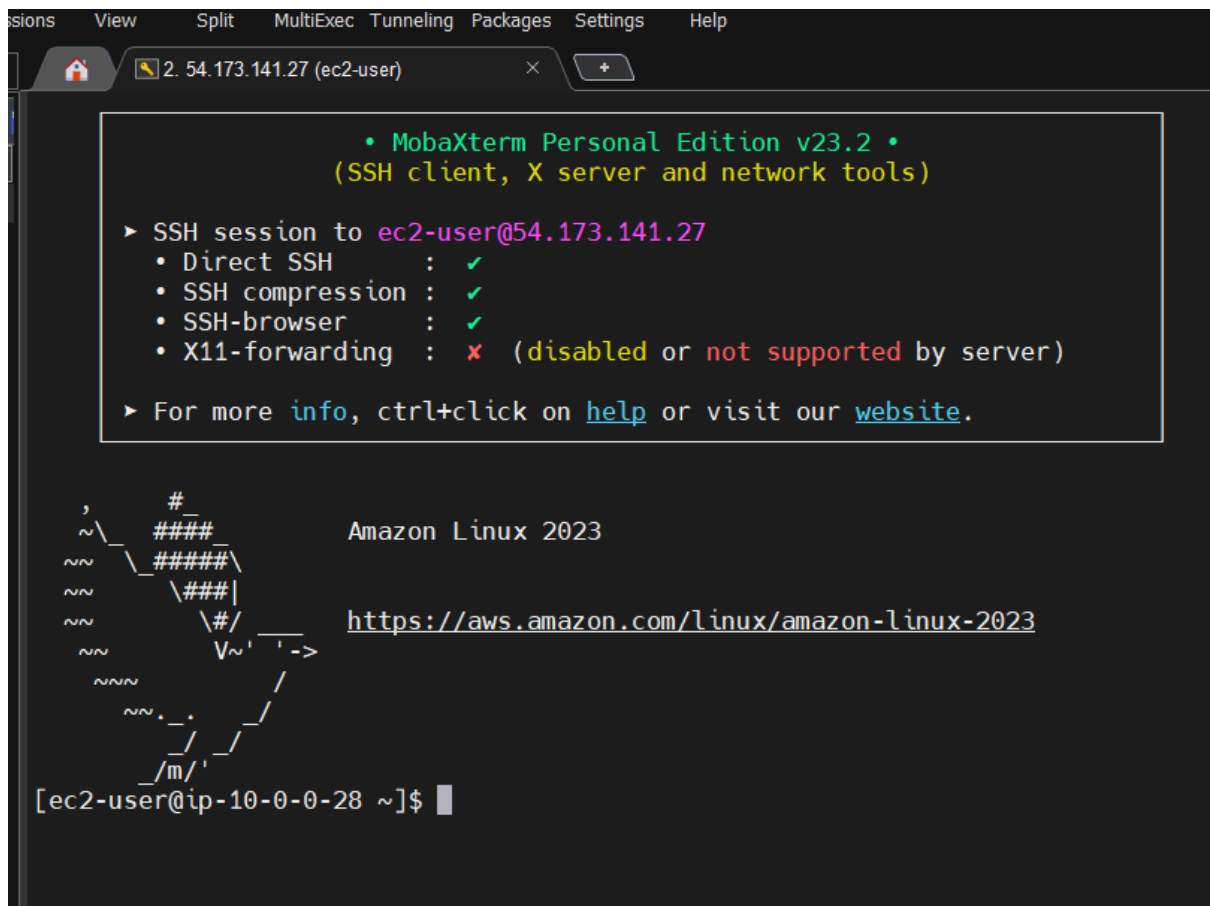
Refresh

▼

Add to dashboard

Connect bastion host :



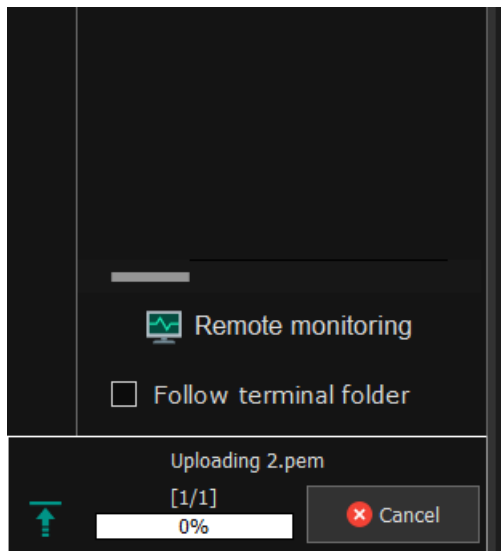


It is getting pinged so it is a public server :

```
2. 54.173.141.27 (ec2-user) x +  
  
    (SSH client, X server and network tools)  
  
▶ SSH session to ec2-user@54.173.141.27  
• Direct SSH      : ✓  
• SSH compression : ✓  
• SSH-browser     : ✓  
• X11-forwarding  : ✗ (disabled or not supported by server)  
  
▶ For more info, ctrl+click on help or visit our website.  
  
#_##### Amazon Linux 2023  
~\#####  
~~\#####  
~~\#####  
~~\#####  
~~\#####  
~~~~V~' -> https://aws.amazon.com/linux/amazon-linux-2023  
~~~~  
~~~~  
~~~~  
~/m/'
```

```
[ec2-user@ip-10-0-0-28 ~]$ ping google.com  
PING google.com (142.251.16.139) 56(84) bytes of data:  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=1 ttl=50 time=10.9 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=2 ttl=50 time=1.83 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=3 ttl=50 time=1.79 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=4 ttl=50 time=1.88 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=5 ttl=50 time=1.87 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=6 ttl=50 time=1.84 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=7 ttl=50 time=1.90 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=8 ttl=50 time=1.84 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=9 ttl=50 time=1.91 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=10 ttl=50 time=1.92 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=11 ttl=50 time=1.82 ms  
^Z64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=12 ttl=50 time=1.84 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=13 ttl=50 time=1.81 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=14 ttl=50 time=1.85 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=15 ttl=50 time=1.85 ms  
64 bytes from bl-in-f139.1e100.net (142.251.16.139): icmp_seq=16 ttl=50 time=1.81 ms  
^Z  
[1]+ Stopped ping google.com  
[ec2-user@ip-10-0-0-28 ~]$
```

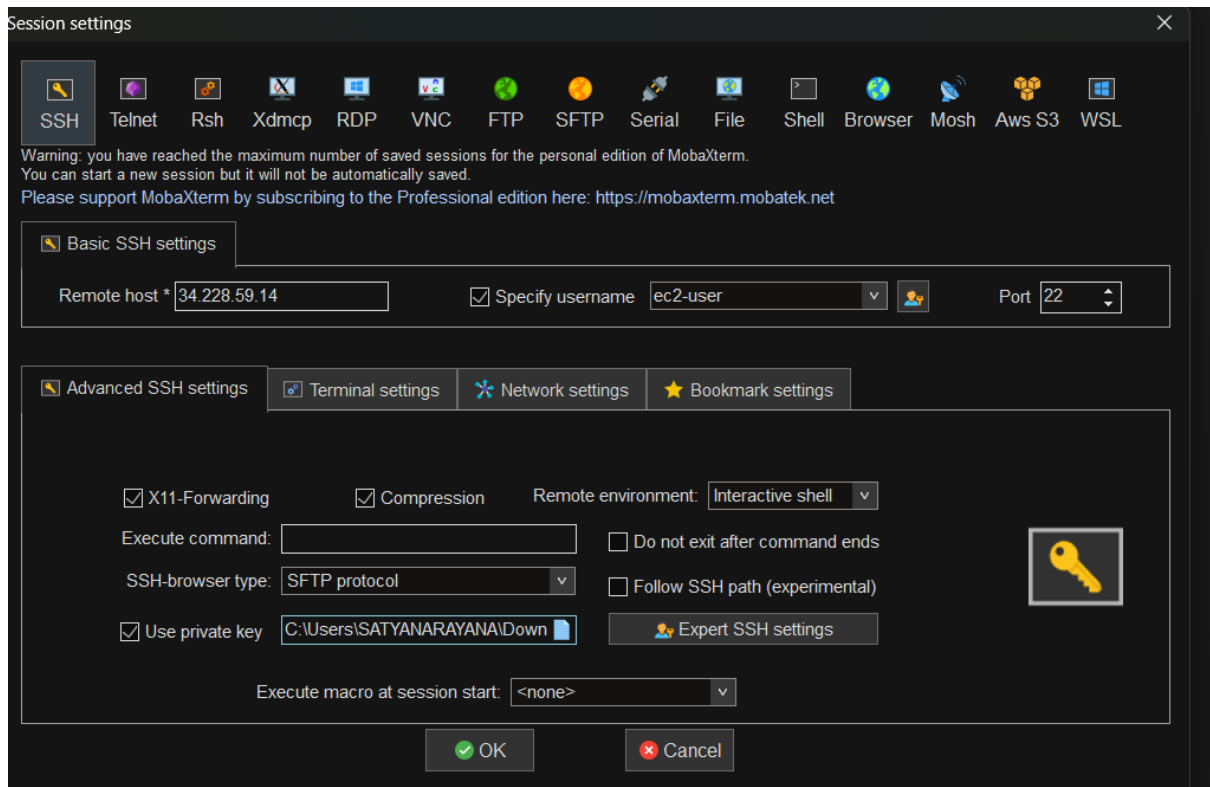
To connect the private server from bastion host upload key pair :



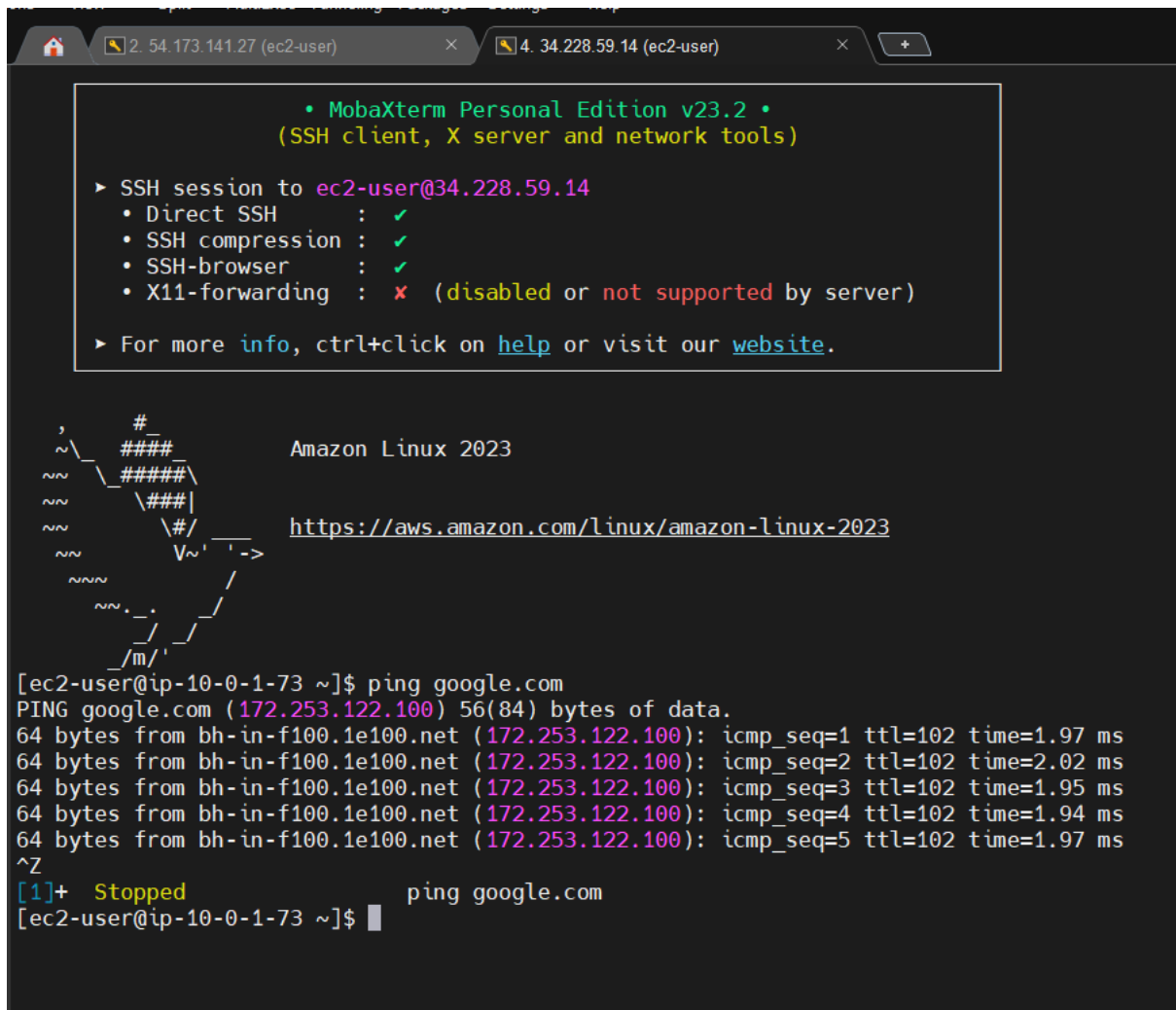
Private server is connected and it is not pinging
because it is a private server

[illegible]

Connect to public server in AZ B :



It is getting pinged so it is a public server



```
• MobaXterm Personal Edition v23.2 •
(SSH client, X server and network tools)

► SSH session to ec2-user@34.228.59.14
  • Direct SSH      : ✓
  • SSH compression : ✓
  • SSH-browser     : ✓
  • X11-forwarding  : ✗ (disabled or not supported by server)

► For more info, ctrl+click on help or visit our website.

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

[ec2-user@ip-10-0-1-73 ~]$ ping google.com
PING google.com (172.253.122.100) 56(84) bytes of data:
64 bytes from bh-in-f100.1e100.net (172.253.122.100): icmp_seq=1 ttl=102 time=1.97 ms
64 bytes from bh-in-f100.1e100.net (172.253.122.100): icmp_seq=2 ttl=102 time=2.02 ms
64 bytes from bh-in-f100.1e100.net (172.253.122.100): icmp_seq=3 ttl=102 time=1.95 ms
64 bytes from bh-in-f100.1e100.net (172.253.122.100): icmp_seq=4 ttl=102 time=1.94 ms
64 bytes from bh-in-f100.1e100.net (172.253.122.100): icmp_seq=5 ttl=102 time=1.97 ms
^Z
[1]+  Stopped                  ping google.com
[ec2-user@ip-10-0-1-73 ~]$
```