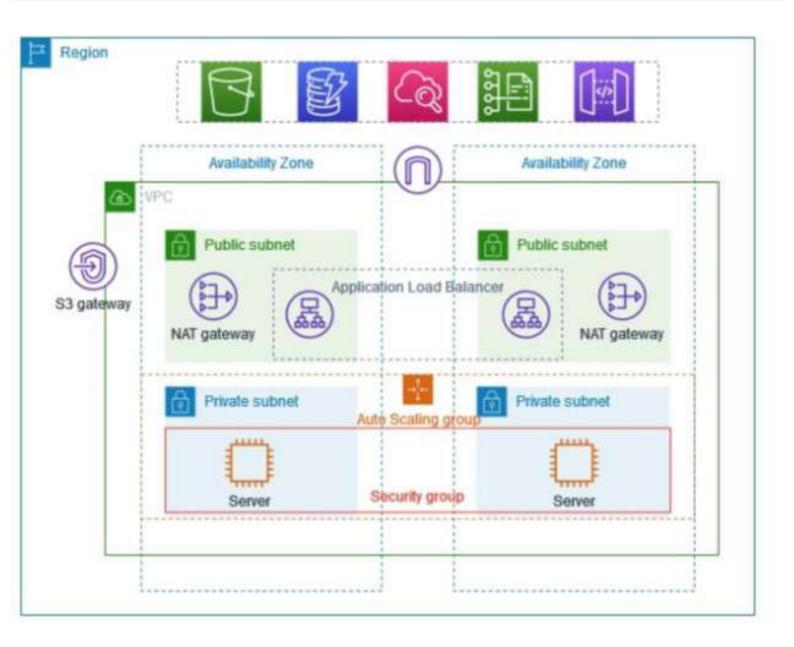
mazon 53 by using a gateway VPC

A VPC with subnets in two Availability Zones.

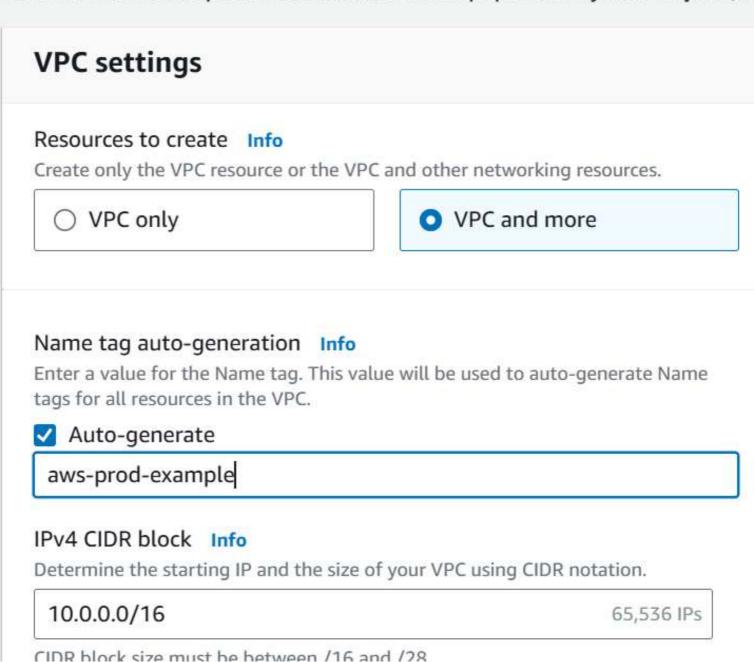




VPC > Your VPCs > Create VPC

Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, suc



Number of Availability Zones (AZs) Info

Choose the number of AZs in which to provision subnets. We recommend at least two AZs for high availability.



Customize AZs

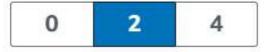
Number of public subnets Info

The number of public subnets to add to your VPC. Use public subnets for web applications that need to be publicly accessible over the internet.



Number of private subnets Info

The number of private subnets to add to your VPC. Use private subnets to secure backend resources that don't need public access.



Customize subnets CIDR blocks

NAT gateways (\$) Info

Choose the number of Availability Zones (AZs) in which to create NAT gateways. Note that there is a charge for each NAT gateway

| None | In 1 AZ | 1 per AZ |
|------|---------|----------|
|------|---------|----------|

NAT gateways (\$) Info

Choose the number of Availability Zones (AZs) in which to create NAT gateways. Note that there is a charge for each NAT gateway

| None | In 1 AZ | 1 per AZ |
|------|---------|----------|
|------|---------|----------|

VPC endpoints Info

Endpoints can help reduce NAT gateway charges and improve security by accessing S3 directly from the VPC. By default, full access policy is used. You can customize this policy at any time.

None S3 Gateway

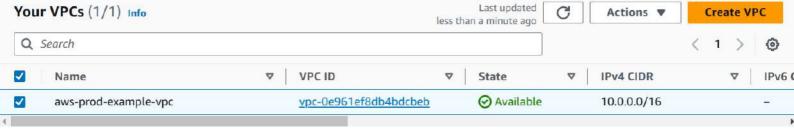
DNS options Info

- Enable DNS hostnames
- Enable DNS resolution

▶ Additional tags

Cancel

Create VPC



Compute

EC2 launch templatesStreamline, simplify and standardize instance launches

Use launch templates to automate instance launches, simplify permission policies, and enforce best practices across your organization. Save launch parameters in a template that can be used for on-demand launches and with managed services, including EC2 Auto Scaling and EC2 Fleet. Easily update your launch parameters by creating a new launch template version.

New launch template

Create launch template

Create launch template

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

Launch template name and description

Launch template name - required

aws-prod-example

Must be unique to this account. Max 128 chars. No spaces or special characters like '&', '*', '@'.

Template version description

proof of concept of aws private subnet

Max 255 chars

Auto Scaling guidance Info

Select this if you intend to use this template with EC2 Auto Scaling

Provide guidance to help me set up a template that I can use with EC2 Auto Scaling

▼ Application and OS Images (Amazon Machine Image) - required 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

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

Recents

Quick Start

Recently launched

rowse more AMIs

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

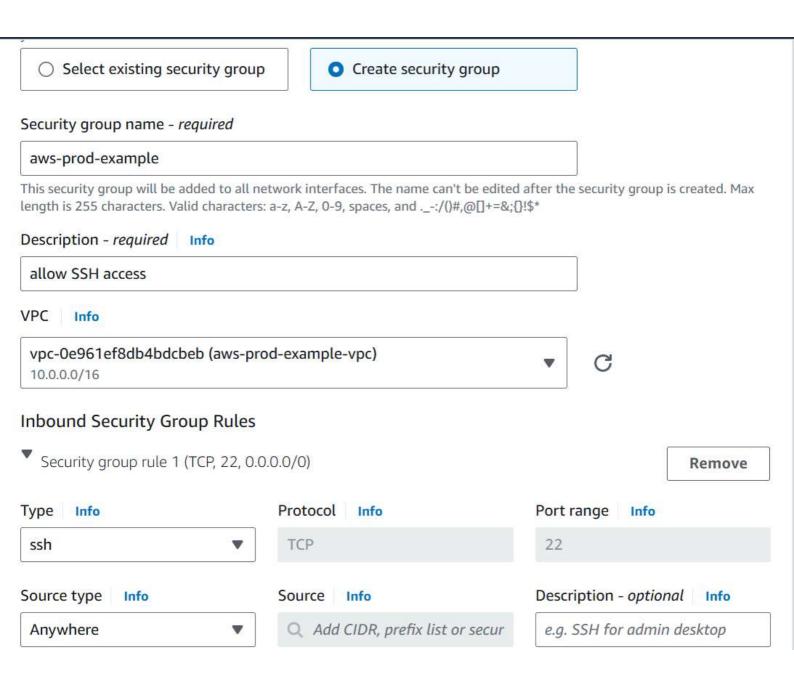
Amazon Machine Image (AMI)

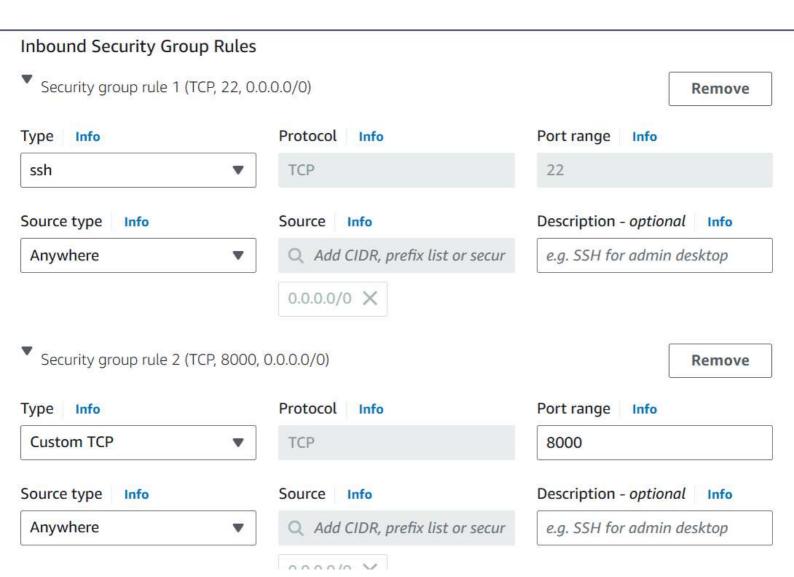
al2023-ami-2023.5.20240819.0-kernel-6.1-x86_64

ami-02b49a24cfb95941c

2024-08-15T17:38:24.000Z Architecture: 64-bit (x86) Virtualization: hvm ENA enabled: true

Root device type: ebs Boot mode: uefi-preferred





Creating template
Creating security groups

Details

Amazon EC2 Auto Scaling

helps maintain the availability of your applications

Auto Scaling groups are collections of Amazon EC2 instances that enable automatic scaling and fleet management features. These features help you maintain the health and availability of your applications.

Create Auto Scaling group

Get started with EC2 Auto Scaling by creating an Auto Scaling group.

Create Auto Scaling group

Name

Auto Scaling group name

Enter a name to identify the group.

aws-prod-example

Must be unique to this account in the current Region and no more than 255 characters.

Launch template Info

(i) For accounts created after May 31, 2023, the EC2 console only supports creating Auto Scaling groups with launch templates. Creating Auto Scaling groups with launch configurations is not recommended but still available via the CLI and API until December 31, 2023.

Launch template

Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

aws-prod-example





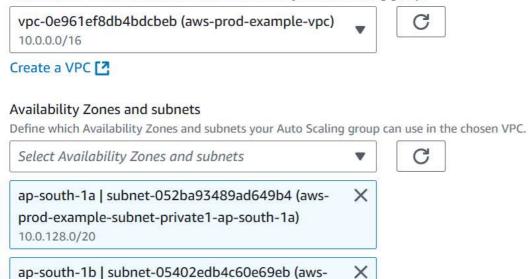
Create a launch template [2]

Network Info

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC

Choose the VPC that defines the virtual network for your Auto Scaling group.



Create a subnet []

10.0.144.0/20

prod-example-subnet-private2-ap-south-1b)

Configure group size and scaling - optional Info

Define your group's desired capacity and scaling limits. You can optionally add automatic scaling to adjust the size of your group.

Group size Info

Set the initial size of the Auto Scaling group. After creating the group, you can change its size to meet demand, either manually or by using automatic scaling.

Desired capacity type

Choose the unit of measurement for the desired capacity value. vCPUs and Memory(GiB) are only supported for mixed instances groups configured with a set of instance attributes.

Units (number of instances)

Desired capacity
Specify your group size.

2

Scaling Info

You can resize your Auto Scaling group manually or automatically to meet changes in demand.

Scaling limits

Set limits on how much your desired capacity can be increased or decreased.

Min desired capacity

Max desired capacity

1

4

Equal or less than desired capacity

Equal or greater than desired capacity

Automatic scaling - optional

Choose whether to use a target tracking policy Info

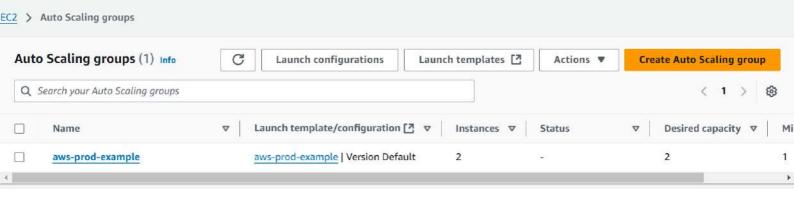
You can set up other metric-based scaling policies and scheduled scaling after creating your Auto Scaling group.

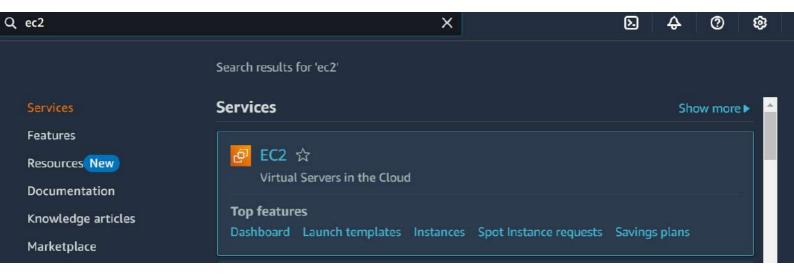
No scaling policies

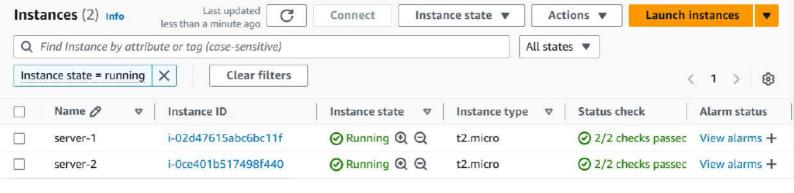
Your Auto Scaling group will remain at its initial size and will not dynamically resize to meet demand.

Target tracking scaling policy

Choose a CloudWatch metric and target value and let the scaling policy adjust the desired capacity in proportion to the metric's value.









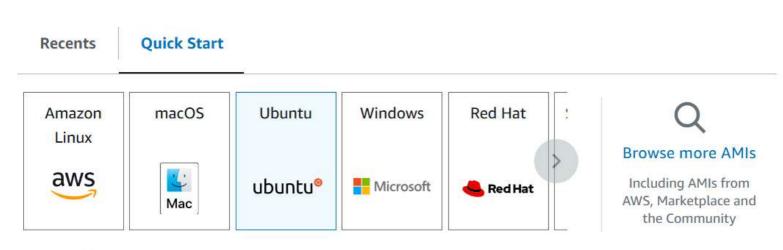
Launch an instance Info

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 | |
|--------------|---------------------|
| bastion-host | Add additional tags |

looking for below





Amazon Machine Image (AMI)

Virtualization: hvm ENA enabled: true Root device type: ebs

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type ami-0dee22c13ea7a9a67 (64-bit (x86)) / ami-0c8eea98010057bd0 (64-bit (Arm))

▼ Instance type Info | Get advice

Instance type

t2.micro

Free tier eligible

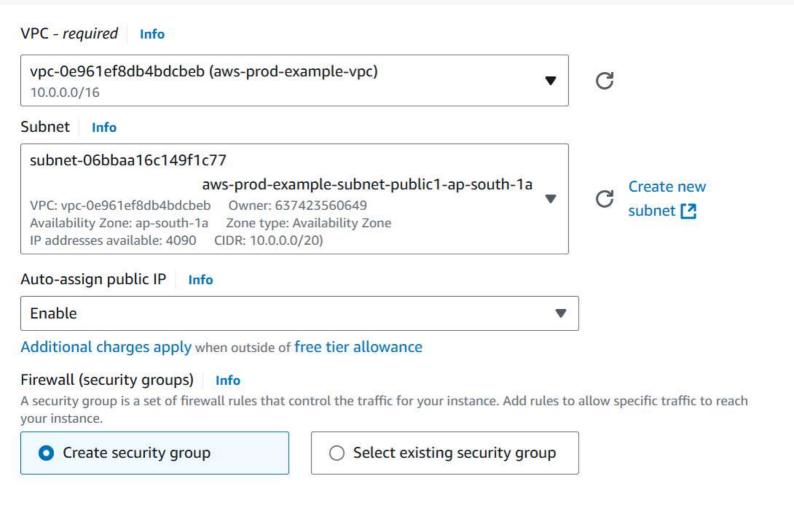
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Linux base pricing: 0.0124 USD per Hour
On-Demand Windows base pricing: 0.017 USD per Hour
On-Demand RHEL base pricing: 0.0268 USD per Hour
On-Demand SUSE base pricing: 0.0124 USD per Hour

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

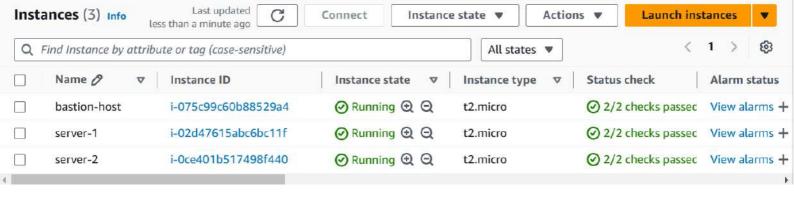
▼ Network settings Info



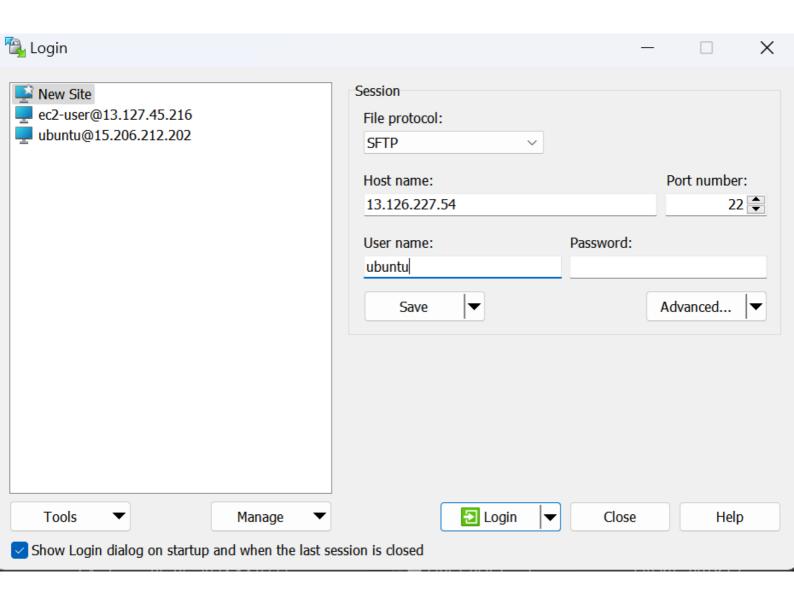
EC2 > ... > Launch an instance

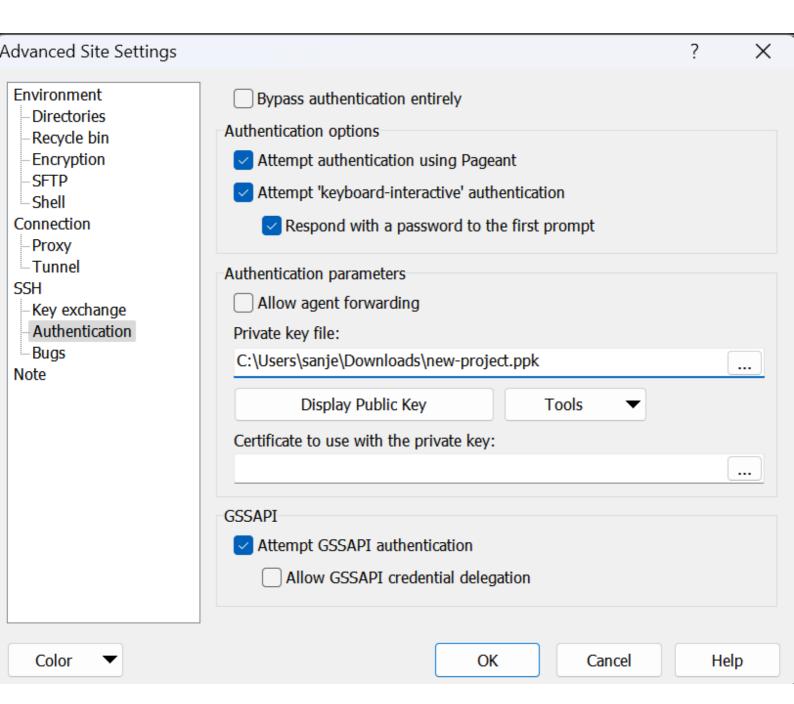
C Launching instance
Launch initiation

79%









Warning ? X



Continue connecting to an unknown server and add its host key to a cache?

The host key is not cached for this server: 13.126.227.54 (port 22)

You have no guarantee that the server is the computer you think it is.

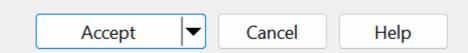
The ssh-ed25519 key fingerprint is: ssh-ed25519 255 RdtRuuDQMOpku1OFBZZdf5li9OOr3e0uufO/BTh8SYg

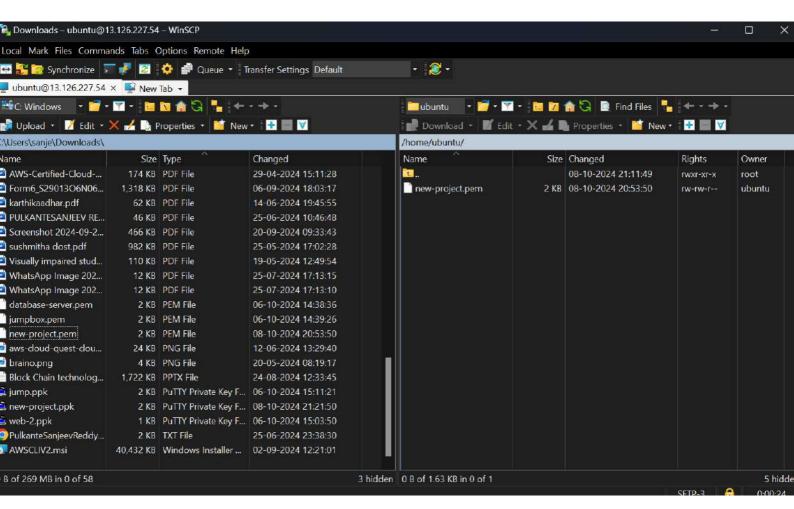
If you trust this host, select Accept to add the key to WinSCP's cache and carry on connecting.

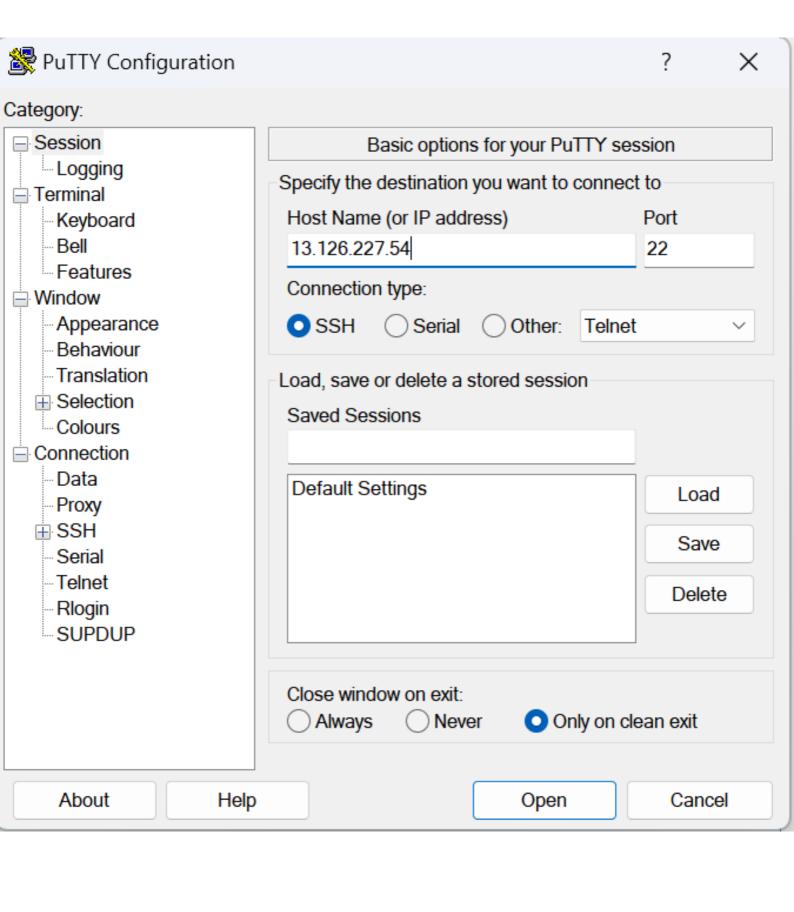
If you want to carry on connecting just once, without adding the key to the cache, select Connect Once.

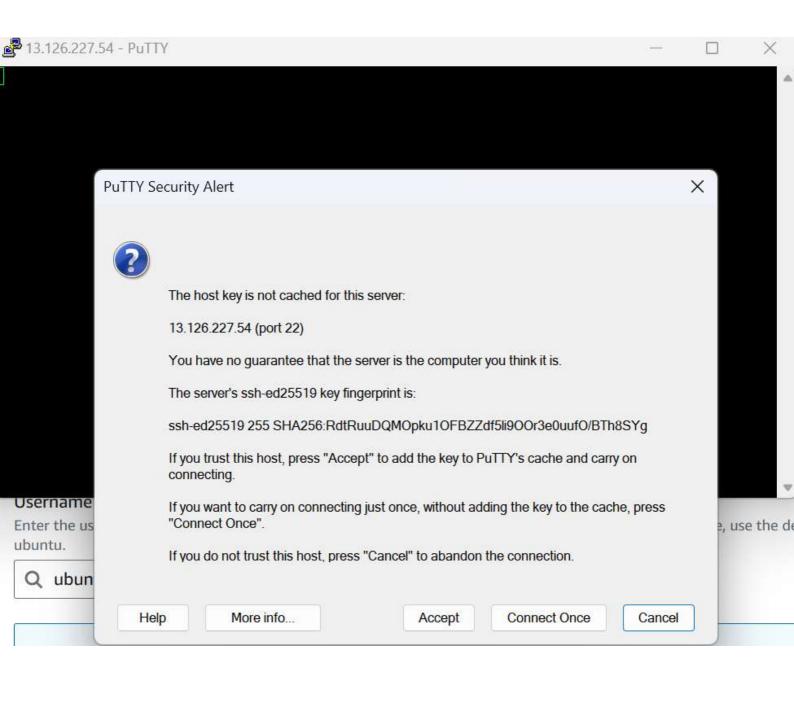
If you do not trust this host, select Cancel to abandon the connection.

Copy key fingerprints to clipboard

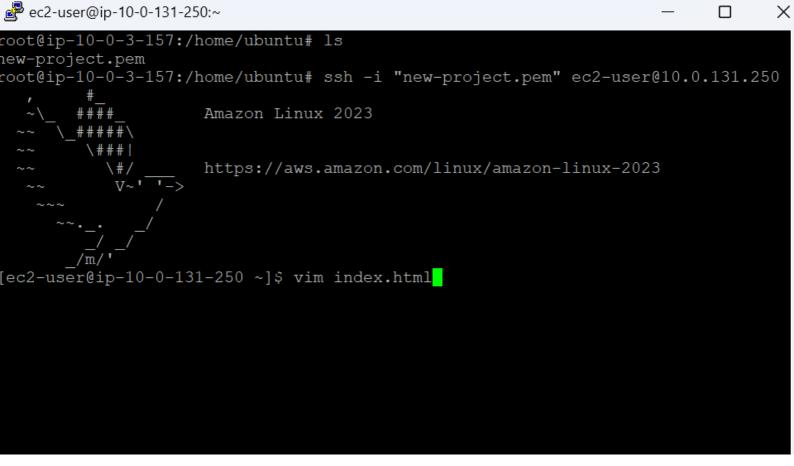












X

```
<hl>my first aws project demonastrate apps in private subnet</hl>
thank you abhishek.veeramalla sir.

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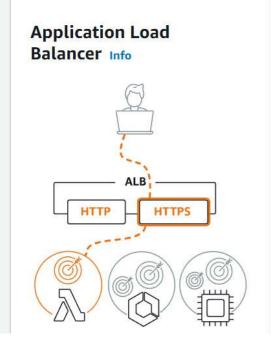
<html> <body>

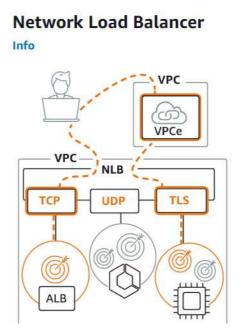
ec2-user@ip-10-0-131-250:~

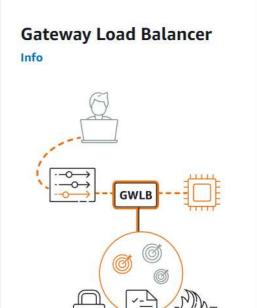
Compare and select load balancer type

A complete feature-by-feature comparison along with detailed highlights is also available. Learn more [2]

Load balancer types







| Load balancer name |
|--|
| Name must be unique within your AWS account and can't be changed after the load balancer is created. |
| prod-example |
| A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen. |
| Scheme Info |
| Scheme can't be changed after the load balancer is created. |
| Internet-facing An internet-facing load balancer routes requests from clients over the internet to targets. Requires a public subnet. Learn more |
| ○ Internal |
| An internal load balancer routes requests from clients to targets using private IP addresses. Compatible with the IPv4 and Dualstack IP address types. |
| Load balancer IP address type Info |
| Select the front-end IP address type to assign to the load balancer. The VPC and subnets mapped to this load balancer must include the selected IP address types. Public IPv4 addresses have an additional cost. |
| Includes only IPv4 addresses. |
| ① Dualstack |
| Includes IPv4 and IPv6 addresses. |
| O Dualstack without public IPv4 |
| Includes a public IPv6 address, and private IPv4 and IPv6 addresses. Compatible with internet-facing load balancers only. |
| |
| |
| |
| |
| |

VPC Info

The load balancer will exist and scale within the selected VPC. The selected VPC is also where the load balancer targets must be hosted unless routing to Lambda or on-premises targets, or if using VPC peering. To confirm the VPC for your targets, view target groups . For a new VPC, create a VPC .



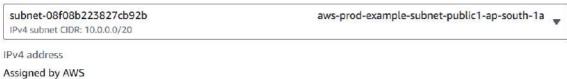
Mappings Info

Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection.

Availability Zones

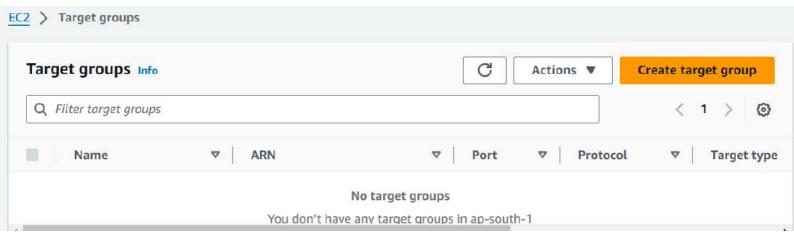
ap-south-1a (aps1-az1)

Subnet



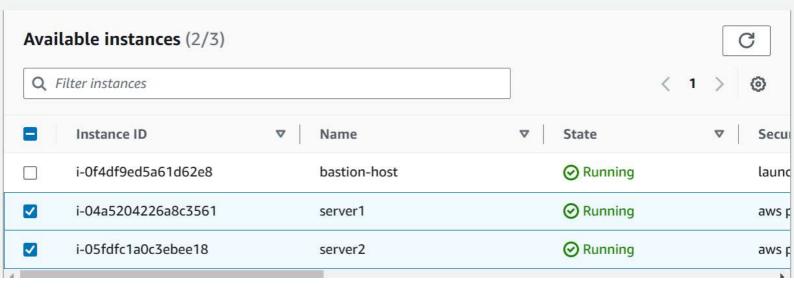
ap-south-1b (aps1-az3)





Register targets

This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets.



| Ta | ra | et | a | roi | in | na | me |
|-----|----|----|---|-----|----|-----|------|
| ı a | IЧ | CL | ч | | | 110 | 1110 |

aws-prod-example

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol: Port

Choose a protocol for your target group that corresponds to the Load Balancer type that will route traffic to it. Some protocols now include anomaly detection for the targets and you can set mitigation options once your target group is created. This choice cannot be changed after creation

HTTP ▼ 8000

1-65535

IP address type

Only targets with the indicated IP address type can be registered to this target group.

O IPv4

Each instance has a default network interface (eth0) that is assigned the primary private IPv4 address. The instance's primary private IPv4 address is the one that will be applied to the target.

O IPv6

Each instance you register must have an assigned primary IPv6 address. This is configured on the instance's default network interface (eth0). Learn more

VPC

Select the VPC with the instances that you want to include in the target group. Only VPCs that support the IP address type selected above are available in this list.

aws-prod-example-vpc vpc-0637186099594ec40 IPv4 VPC CIDR: 10.0.0.0/16

Protocol version

O HTTP1

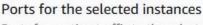
Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.

O HTTP2

Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.

○ gRPC

Send requests to targets using gRPC. Supported when the request protocol is gRPC.



Ports for routing traffic to the selected instances.

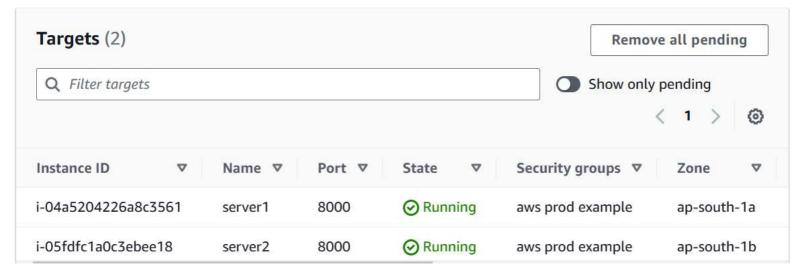
8000

1-65535 (separate multiple ports with commas)

Include as pending below

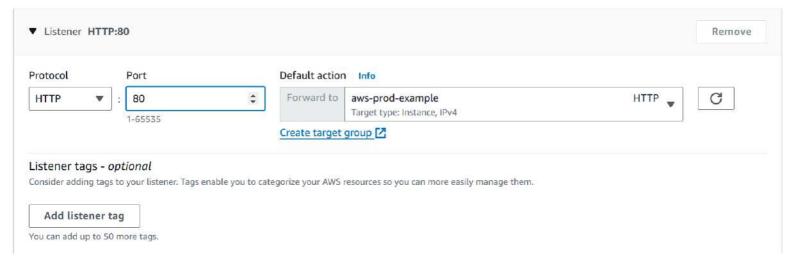
2 selections are now pending below. Include more or register targets when ready.

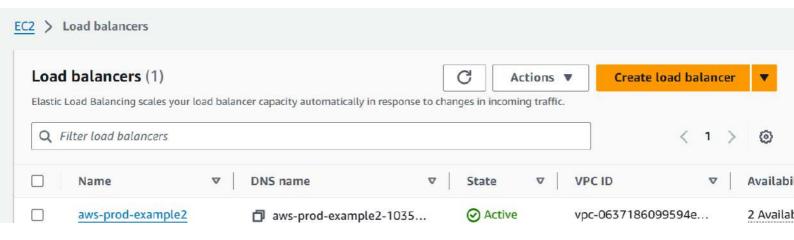
Review targets

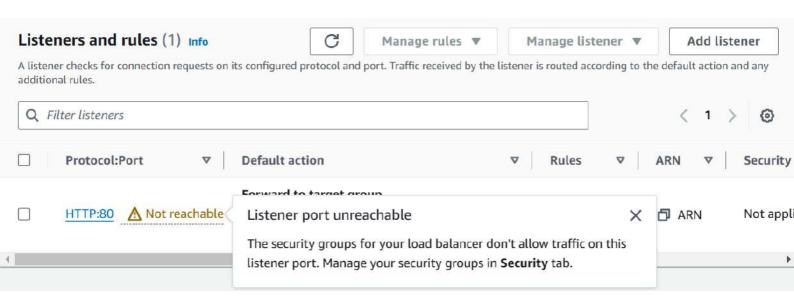


Listeners and routing Info

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.







EC2 > Security Groups > sg-0061fc7173ed54c65 - aws prod example > Edit inbound rules

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

| ecurity group rule ID | Type Info | Protocol | Port range | Source Info | Description - option | Description - optional | |
|-----------------------|------------|----------|------------|-------------|----------------------|------------------------|--|
| | | Info | Info | | Info | | |
| sgr-0be225a0128ee3275 | НТТР | ▼ TCP | 80 | Cus ▼ | Q | Delete | |
| | | | | | 0.0.0.0/0 🗙 | | |
| sgr-03abe9c077c794bf4 | SSH | ▼ TCP | 22 | Cus ▼ | Q | Delete | |
| | | | | | 0.0.0.0/0 × | | |
| sgr-0ef868bab20ff2845 | Custom TCP | ▼ TCP | 8000 | Cus ▼ | Q | Delete | |

