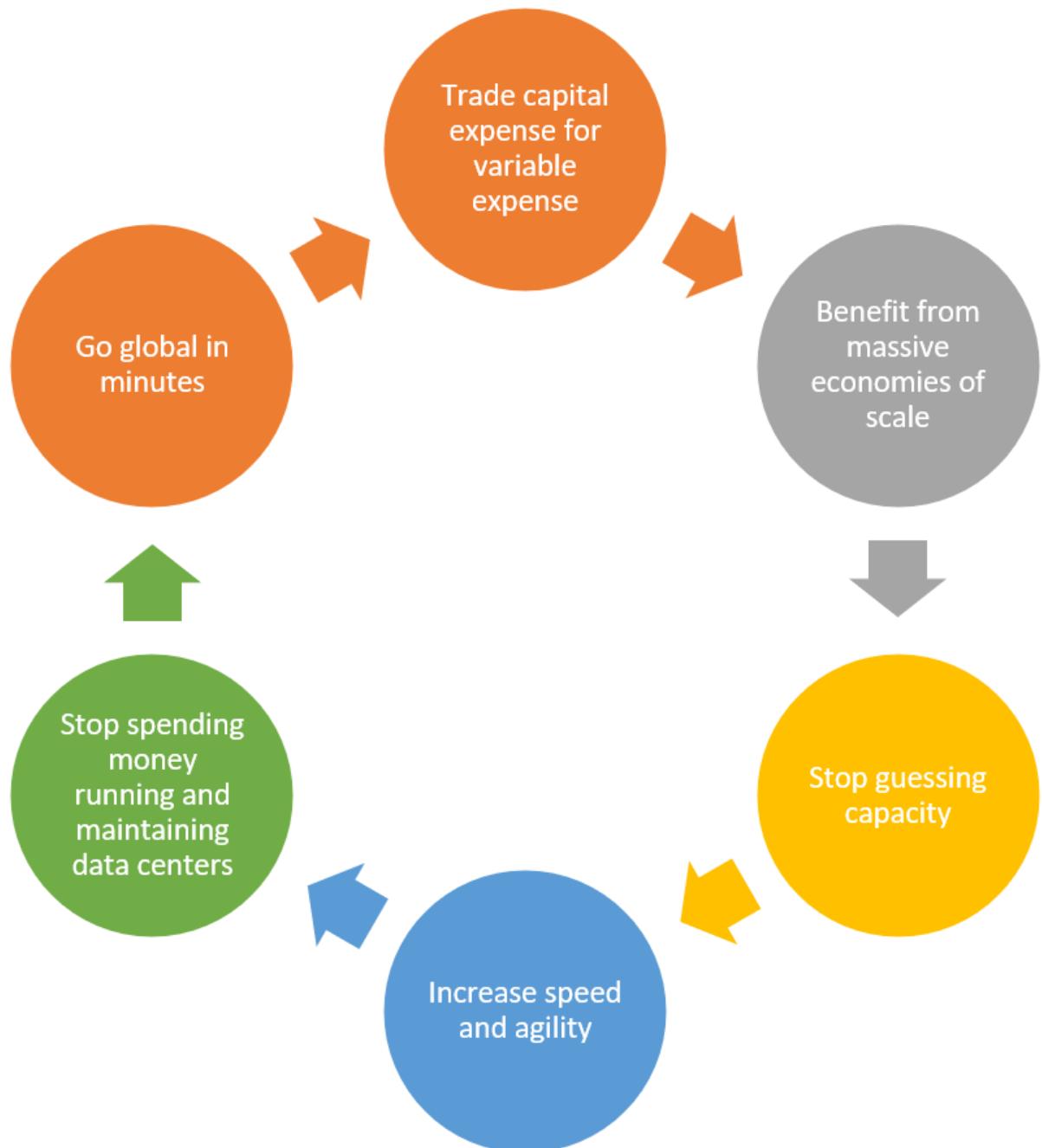
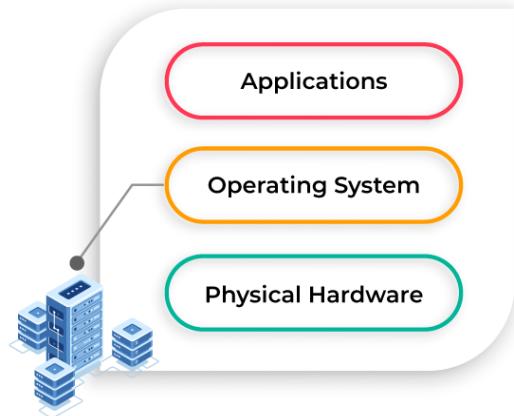


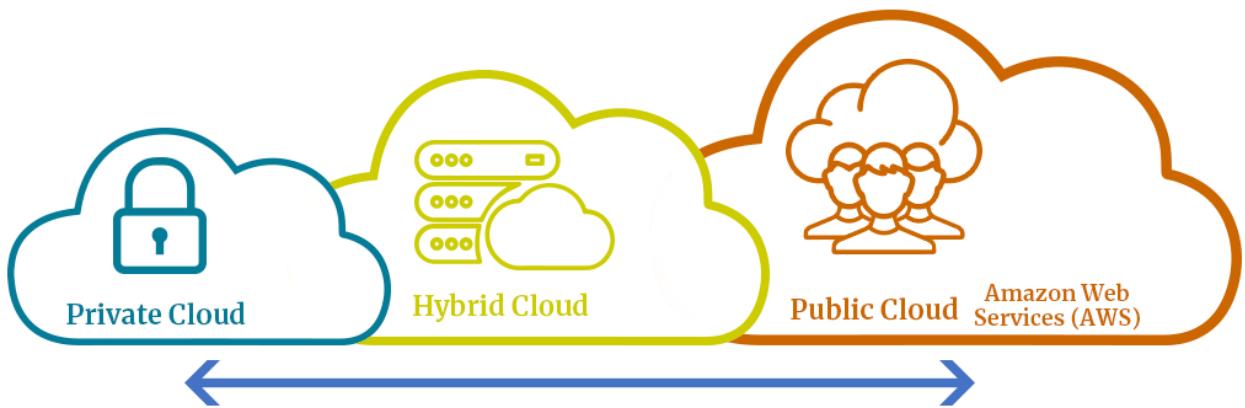
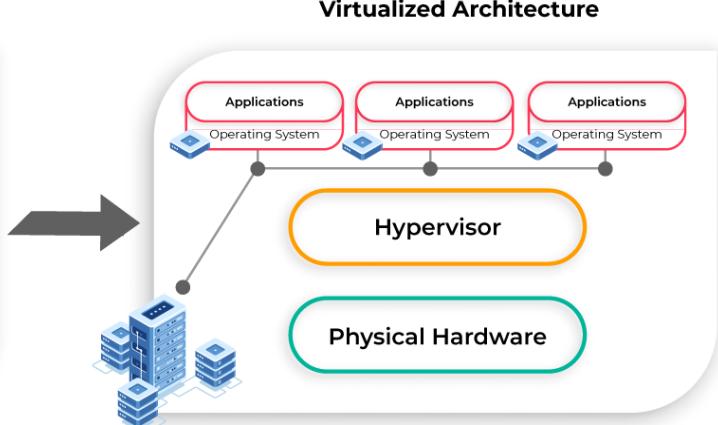
Chapter 1: What Is Cloud Computing?



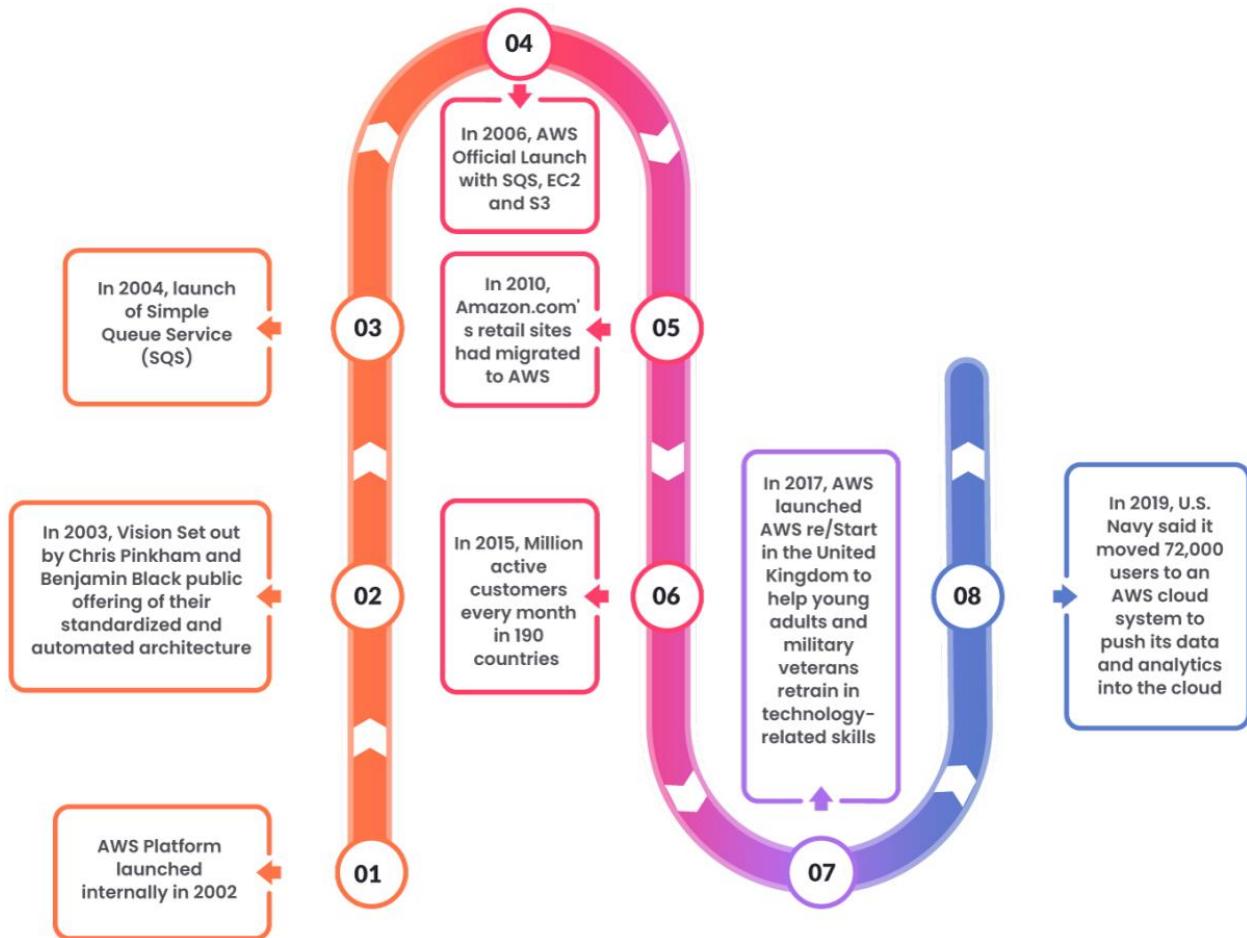
Traditional Physical Architecture

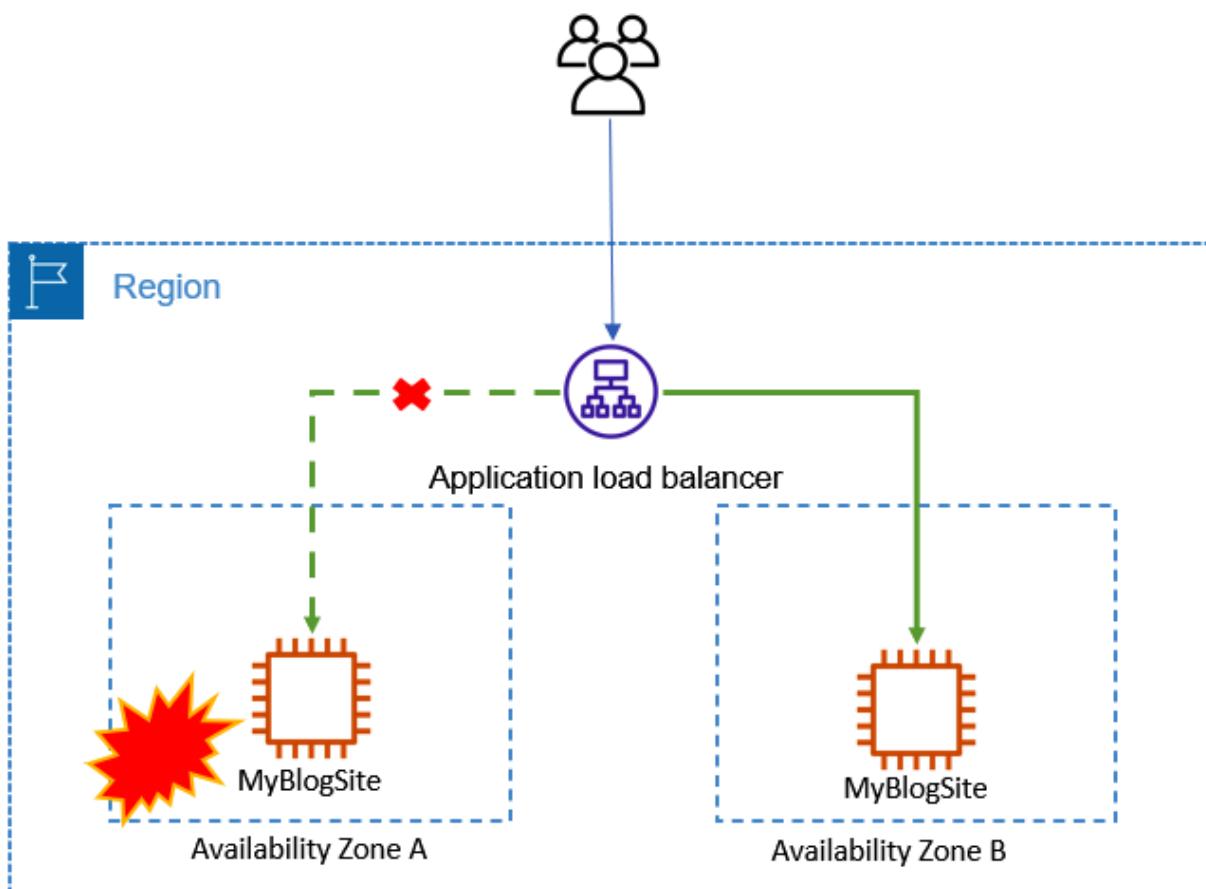


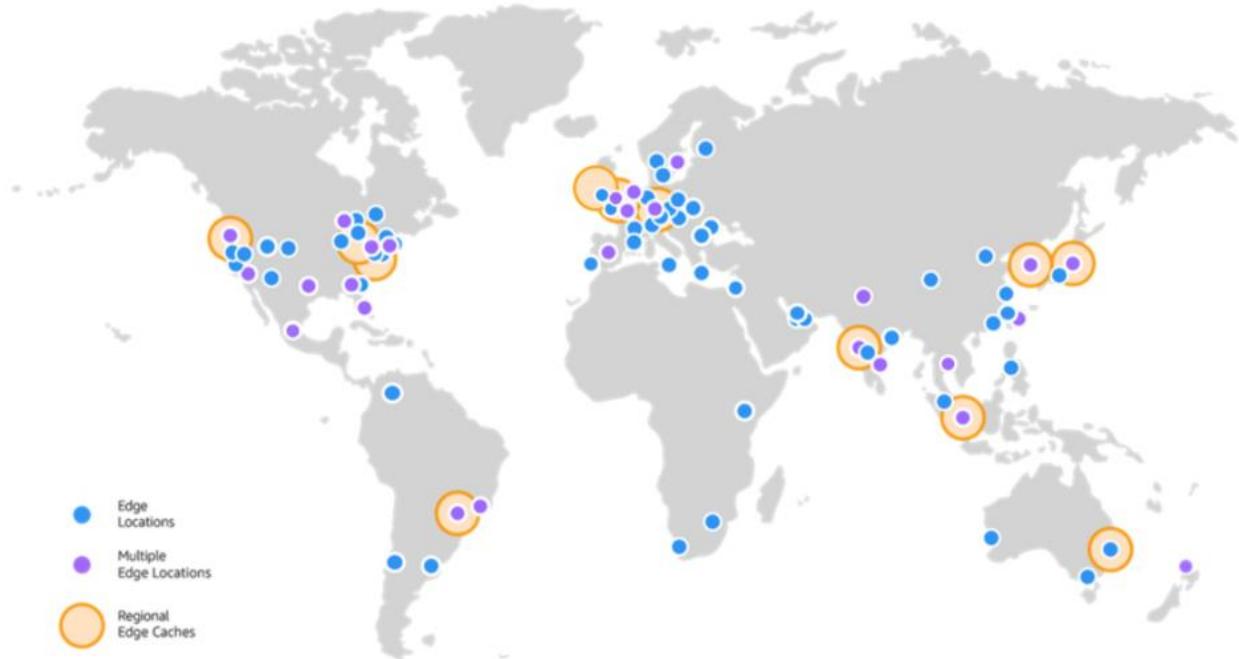
Virtualized Architecture



Chapter 2: Introduction to AWS and the Global Infrastructure







Screenshot of the AWS EC2 Instances console.

The navigation pane shows:

- New EC2 Experience (Tell us what you think)
- EC2 Dashboard (New)
- Events
- Tags
- Limits
- Instances
 - Instances (New)
 - Instance Types

The main content area displays the following information:

- Welcome to the new instances experience!**
We're redesigning the EC2 console to make it easier to use. To use the New EC2 Experience toggle above the navigation pane feedback.
- Instances Info
- Connect
- Instance state
- Filter instances
- Instance state: running
- Clear filters
- Name
- Instance ID

A sidebar on the right lists AWS Regions and their respective endpoint names:

- US East (N. Virginia) us-east-1
- US East (Ohio) us-east-2**
- US West (N. California) us-west-1
- US West (Oregon) us-west-2
- Africa (Cape Town) af-south-1
- Asia Pacific (Hong Kong) ap-east-1
- Asia Pacific (Mumbai) ap-south-1

Buckets (4)			
	Name	Region	Access
<input type="radio"/>	codepipeline-us-east-1-108426062866	US East (N. Virginia) us-east-1	Objects can be public
<input type="radio"/>	jd-wordpress-source	EU (London) eu-west-2	Bucket and objects not public
<input type="radio"/>	omega-webcontent-source	US East (N. Virginia) us-east-1	Objects can be public
<input type="radio"/>	vs-onprem-docs	EU (London) eu-west-2	Objects can be public

North America	South America	Europe	Africa	Asia Pacific	Middle East	Contact Us
Recent Events		Details		RSS		
No recent events.						
Remaining Services		Details		RSS		
Alexa for Business (N. Virginia)		Service is operating normally				
Amazon API Gateway (Montreal)		Service is operating normally				
Amazon API Gateway (N. California)		Service is operating normally				
Amazon API Gateway (N. Virginia)		Service is operating normally				
Amazon API Gateway (Ohio)		Service is operating normally				
Amazon API Gateway (Oregon)		Service is operating normally				
Amazon AppFlow (Montreal)		Service is operating normally				

Personal Health Dashboard X

▼ AWS account

Dashboard

Event log

Amazon CloudWatch Events

▶ Organizational view

Dashboard

Last refreshed less than 1 min ago C

Overview

0 Open issues Past 7 days

0 Scheduled changes Upcoming and past 7 days

0 Other notifications Past 7 days

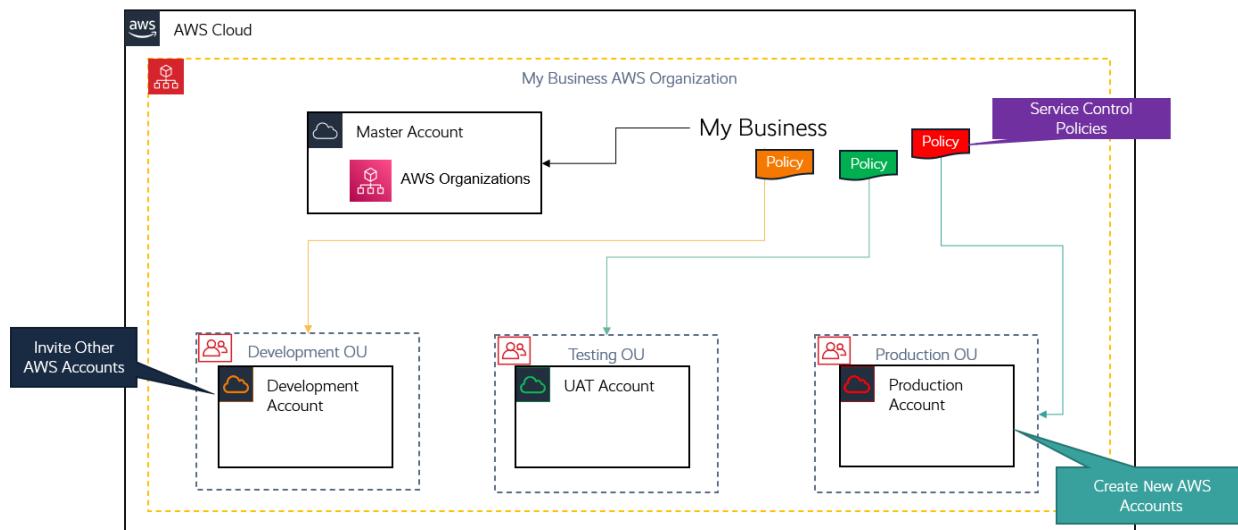
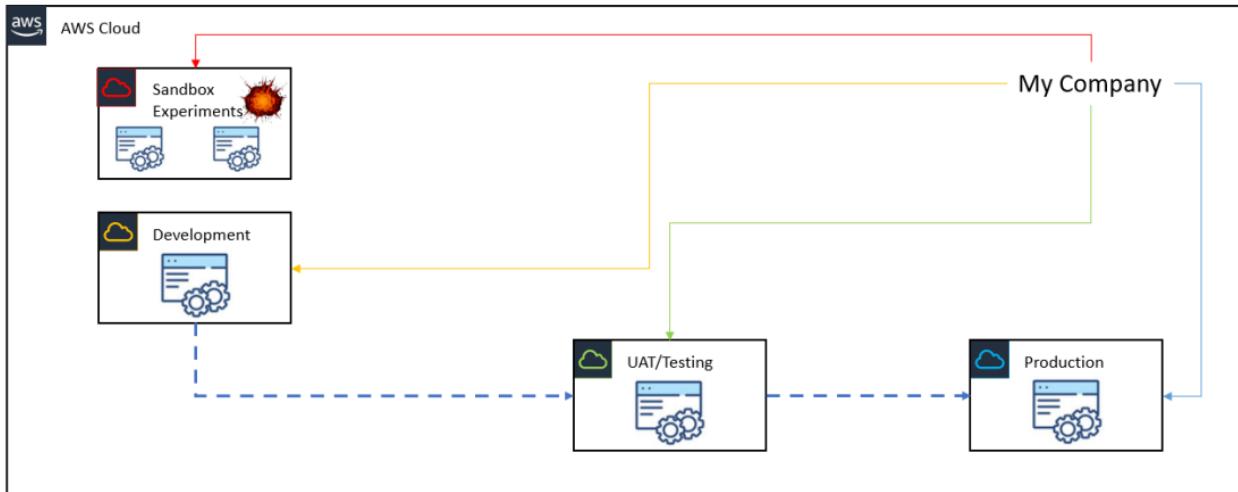
Set up alerts

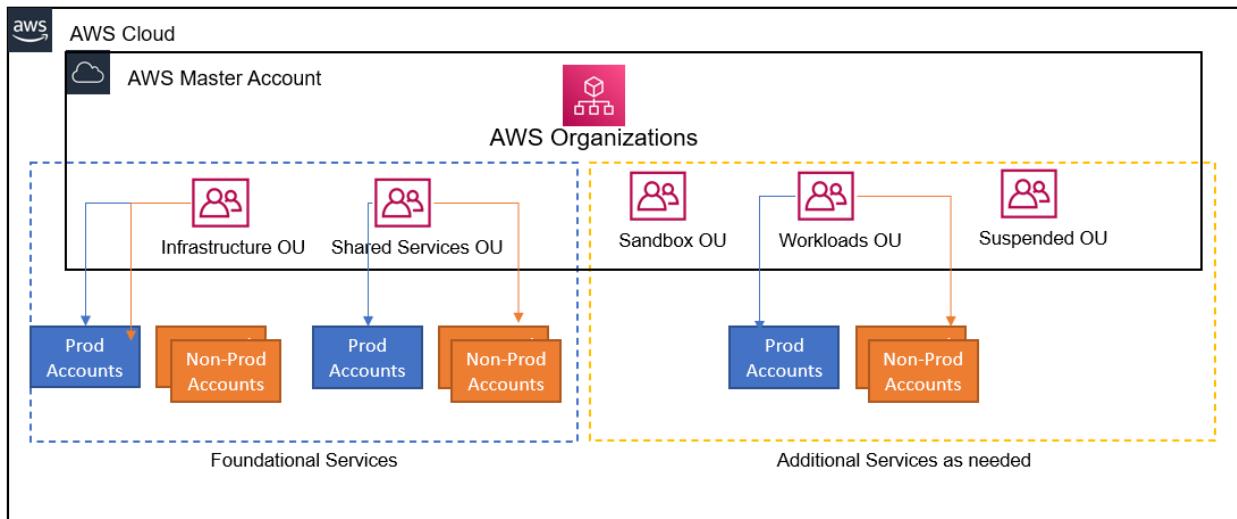
Use Amazon CloudWatch Events to create rules and receive notifications for events that might affect your AWS infrastructure.

Create rule

This screenshot shows the AWS Personal Health Dashboard. On the left, there's a sidebar with navigation options: 'AWS account' (selected), 'Event log', 'Amazon CloudWatch Events', and 'Organizational view'. The main area is titled 'Dashboard' and shows an 'Overview' section with three metrics: 'Open issues' (0, past 7 days), 'Scheduled changes' (0, upcoming and past 7 days), and 'Other notifications' (0, past 7 days). Below this is a 'Set up alerts' section with a note about using Amazon CloudWatch Events to create rules for notifications, and a 'Create rule' button.

Chapter 3: Exploring AWS Accounts, Multi-Account Strategy, and AWS Organizations





Google aws free tier account

All Videos News Images Shopping More Settings Tools

About 12,20,00,000 results (0.55 seconds)

Ad · aws.amazon.com/account/sign-up

[Amazon Web Services - Get a Free Tier Account](https://aws.amazon.com/account/sign-up)

Build, Deploy, and Manage Websites, Apps or Processes On **AWS**' Secure, Reliable Network. Sign Up for a **Free Account** & Experience **AWS**' Secure, Reliable, Scalable Services. In-Memory Caching. No Upfront Commitment. Durable, Safe & Secure.

[aws.amazon.com › free](https://aws.amazon.com/free)

AWS Free Tier.

Create a **Free Account**. Types of offers. Explore more than 85 products and start building on **AWS** using the **free tier**. Three different types of free offers are ...

AWS Free Tier

Gain free, hands-on experience with the AWS platform, products, and services

[Create a Free Account](#)



Sign in

Root user

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

IAM user

User within an account that performs daily tasks. [Learn more](#)

Root user email address

username@example.com

Next

————— New to AWS? ————

Create a new AWS account

Create an AWS account

Email address

Password

Confirm password

AWS account name 

Continue

[Sign in to an existing AWS account](#)

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[Privacy Policy](#) | [Terms of Use](#)

Security check

For security reasons, we need to verify that account holders are real people.



Type the characters as shown above

Continue

Account type 

Professional Personal

Full name

Sandbox

Company name

Phone number

Country/Region

United States 

Address

Street, P.O. Box, Company Name, c/o

Apartment, suite, unit, building, floor, etc.

City

State / Province or region

Postal code

Check here to indicate that you have read
and agree to the terms of the [AWS
Customer Agreement](#)

[Create Account and Continue](#)

Credit/Debit card number



AWS accepts most major credit and debit cards.

Expiration date

02	▼	2021	▼
----	---	------	---

Cardholder's name

Billing address

Use my contact address

Use a new address

Do you have a PAN? 

You can go on the Tax Settings Page on Billing and Cost Management Console to update your PAN information.

Yes No

Verify and Add

Confirm your identity

Before you can use your AWS account, you must verify your phone number. When you continue, the AWS automated system will contact you with a verification code.

How should we send you the verification code?

- Text message (SMS) Voice call

Country or region code

United States (+1)

Cell Phone Number

Security check



Type the characters as shown above

Send SMS

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[Privacy Policy](#) | [Terms of Use](#) | [Sign Out](#)

Enter verification code

Enter the 4-digit verification code that you received on your phone.

Verify Code

Having trouble? Sometimes it takes up to 10 minutes to receive a verification code. If it's been longer than that, return to the previous page and enter your number again.



Your identity has been verified successfully.

Continue

Select a Support Plan

We offer a varied selection of plans to meet your needs. Please select a Support plan that best aligns with your AWS usage. To learn more about plan comparisons and pricing samples, [click here](#). You can change the Support plan anytime from the Console.



Basic Plan

Recommended for new users just getting started with AWS

Free



Developer Plan

Recommended for developers experimenting with AWS

From \$29/month



Business Plan

Recommended for running production workloads on AWS

From \$100/month

- 24x7 self-service access to AWS resources
- For account and billing issues only
- Access to Personal Health Dashboard & Trusted Advisor

- Email access to AWS Support during business hours
- 12 (business)-hour response times

- 24x7 tech support via email, phone, and chat
- 1-hour response times
- Full set of Trusted Advisor best-practice recommendations

Welcome to Amazon Web Services

Thank you for creating an Amazon Web Services Account. We are activating your account, which should only take a few minutes. You will receive an email when this is complete.

[Sign In to the Console](#)

[Check your tax details for accurate invoicing >>](#)

[Contact Sales](#)

Sign in

Root user

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

IAM user

User within an account that performs daily tasks.
[Learn more](#)

Root user email address

username@example.com

Next

AWS Management Console

AWS services

▼ Recently visited services

 Billing  EC2

▼ All services

 Compute	 Quantum Technologies	 Security, Identity, & Compliance
EC2	Amazon Braket	IAM
 Lightsail	 Management & Governance	Resource Access Manager
Lambda	AWS Organizations	Cognito
Batch	CloudWatch	Secrets Manager
Elastic Beanstalk	AWS Auto Scaling	GuardDuty
Serverless Application Repository	CloudFormation	Inspector
AWS Outposts		

Preferences

Billing Preferences

Receive PDF Invoice By Email

Turn on this feature to receive a PDF version of your invoice by email. Invoices are generally available within the first three days of the month.

Cost Management Preferences

Receive Free Tier Usage Alerts

Turn on this feature to receive email alerts when your AWS service usage is approaching, or has exceeded, the AWS Free Tier usage limits. If you wish to receive these alerts at an email address that is not the primary email address associated with this account, please specify the email address below.

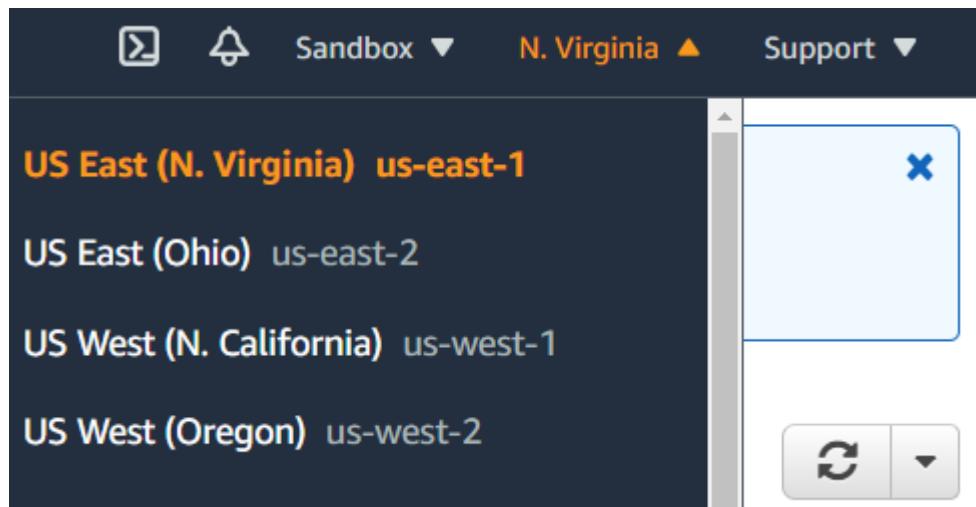
Email Address:

Receive Billing Alerts

Turn on this feature to monitor your AWS usage charges and recurring fees automatically, making it easier to track and manage your spending on AWS. You can set up billing alerts to receive email notifications when your charges reach a specified threshold. Once enabled, this preference cannot be disabled. [Manage Billing Alerts](#) or [try the new budgets feature!](#)

► **Detailed Billing Reports [Legacy]**

Save preferences



CloudWatch > Alarms > Create alarm

Step 1 Specify metric and conditions

Step 2 Configure actions

Step 3 Add name and description

Step 4 Preview and create

Metric

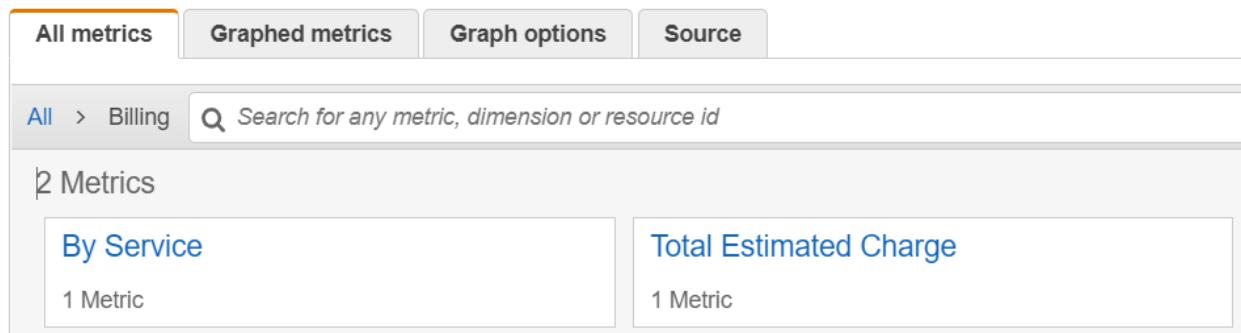
Graph

Preview of the metric or metric expression and the alarm threshold.

Select metric

Cancel Next

This screenshot shows the 'Specify metric and conditions' step of creating a new alarm. It includes tabs for 'Metric', 'Graph', and 'Source'. A large search bar at the top allows searching for metrics, dimensions, or resource IDs. Below the search bar, there are sections for 'By Service' and 'Total Estimated Charge', each showing one metric.



Conditions

Threshold type

Static

Use a value as a threshold

Anomaly detection

Use a band as a threshold

Whenever EstimatedCharges is...

Define the alarm condition.

Greater

> threshold

Greater/Equal

>= threshold

Lower/Equal

<= threshold

Lower

< threshold

than...

Define the threshold value.

10

USD

Must be a number

► Additional configuration

Cancel

Next

Configure actions

Notification

Add notification

Notification

Alarm state trigger

Define the alarm state that will trigger this action.

[Remove](#)

In alarm

The metric or expression is outside of the defined threshold.

OK

The metric or expression is within the defined threshold.

Insufficient data

The alarm has just started or not enough data is available.

Select an SNS topic

Define the SNS (Simple Notification Service) topic that will receive the notification.

- Select an existing SNS topic
- Create new topic
- Use topic ARN

Create a new topic...

The topic name must be unique.

MyBillingAlerts

SNS topic names can contain only alphanumeric characters, hyphens (-) and underscores (_).

Email endpoints that will receive the notification...

Add a comma-separated list of email addresses. Each address will be added as a subscription to the topic above.

user@example.com

user1@example.com, user2@example.com

[Create topic](#)

Name and description

Alarm name

Alarm name

Alarm description - optional

Alarm description

Up to 1024 characters (0/1024)

[Cancel](#)

[Previous](#)

[Next](#)

Alarms (1)					
<input type="checkbox"/> Hide Auto Scaling alarms		<input type="button" value="Clear selection"/>		<input type="button" value="C"/>	<input type="button" value="Create composite alarm"/>
<input type="button" value="Search"/>		<input type="button" value="Any state"/>		<input type="button" value="Any type"/>	<input type="button" value="Actions"/>
<input type="checkbox"/>	Name	<input type="button" value="State"/>	Last state update	<input type="button" value="Conditions"/>	<input type="button" value="Actions"/>
<input type="checkbox"/>	PacktCLFC01 Billing Alarm	<input type="button" value="Insufficient data"/>	2021-02-08 13:12:34	EstimatedCharges > 10 for 1 datapoints within 6 hours	<input type="button" value="Pending confirmation"/>

 AWS Notifications <no-reply@sns.amazonaws.com>
 Mon 2/8/2021 1:07 PM
 To:



You have chosen to subscribe to the topic:
arn:aws:sns:us-east-1: :MyBillingAlerts

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):

[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)

[Reply](#) | [Forward](#)

Alarms (1)					
<input type="checkbox"/> Hide Auto Scaling alarms		<input type="button" value="Clear selection"/>		<input type="button" value="C"/>	<input type="button" value="Create composite alarm"/>
<input type="button" value="Search"/>		<input type="button" value="Any state"/>		<input type="button" value="Any type"/>	<input type="button" value="Actions"/>
<input type="checkbox"/>	Name	<input type="button" value="State"/>	Last state update	<input type="button" value="Conditions"/>	<input type="button" value="Actions"/>
<input type="checkbox"/>	PacktCLFC01 Billing Alarm	<input checked="" type="button" value="OK"/>	2021-02-08 13:13:06	EstimatedCharges > 10 for 1 datapoints within 6 hours	1 action(s)

Chapter 4: Identity and Access Management

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with the AWS logo, a 'Services' dropdown, a search bar containing 'Search for services, features, marketplace products, and docs', and a keyboard shortcut '[Alt+S]'. Below the navigation bar, the title 'AWS Management Console' is displayed. On the left, a sidebar titled 'AWS services' lists 'Recently visited services' and 'All services'. Under 'All services', there are three columns: 'Compute' (EC2, Lightsail, Lambda, Batch, Elastic Beanstalk), 'Quantum Technologies' (Amazon Braket), and 'Security, Identity, & Compliance' (IAM, Resource Access Manager, Cognito, Secrets Manager). The 'Compute' section is highlighted with a blue border.

IAM dashboard

Sign-in URL for IAM users in this account

<https://451147979072.signin.aws.amazon.com/console> | [Customize](#)

IAM resources

Users: 0

Roles: 2

Groups: 0

Identity providers: 0

[Customer managed policies: 0](#)

Security alerts

The root user for this account does not have Multi-factor authentication (MFA) enabled. [Enable MFA](#) to improve security for this account.

Best practices

- Grant [least privilege access](#): Establishing a principle of least privilege ensures that identities are only permitted to perform the most minimal set of functions necessary to fulfill a specific task, while balancing usability and efficiency.
- Use [AWS Organizations](#): Centrally manage and govern your environment as you scale your AWS resources. Easily create new AWS accounts, group accounts to organize your workflows, and apply policies to accounts or groups for governance.

Security alerts

⚠ The root user for this account does not have Multi-factor authentication (MFA) enabled. [Enable MFA](#) to improve security for this account.

Manage MFA device



Choose the type of MFA device to assign:

Virtual MFA device

Authenticator app installed on your mobile device or computer

U2F security key

YubiKey or any other compliant U2F device

Other hardware MFA device

Gemalto token

For more information about supported MFA devices, see [AWS Multi-Factor Authentication](#)

[Cancel](#)

[Continue](#)

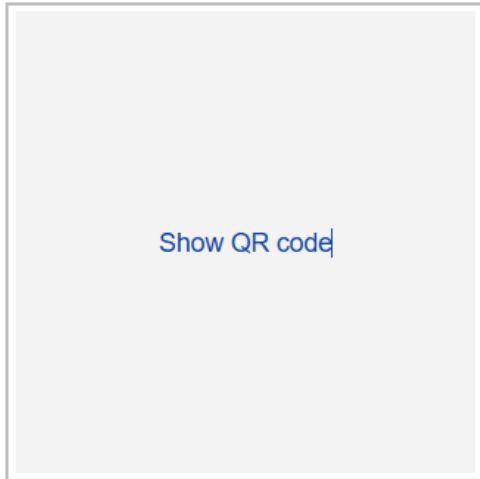
Set up virtual MFA device



1. Install a compatible app on your mobile device or computer

See a [list of compatible applications](#)

2. Use your virtual MFA app and your device's camera to scan the QR code



[Show QR code](#)

Alternatively, you can type the secret key. [Show secret key](#)

3. Type two consecutive MFA codes below

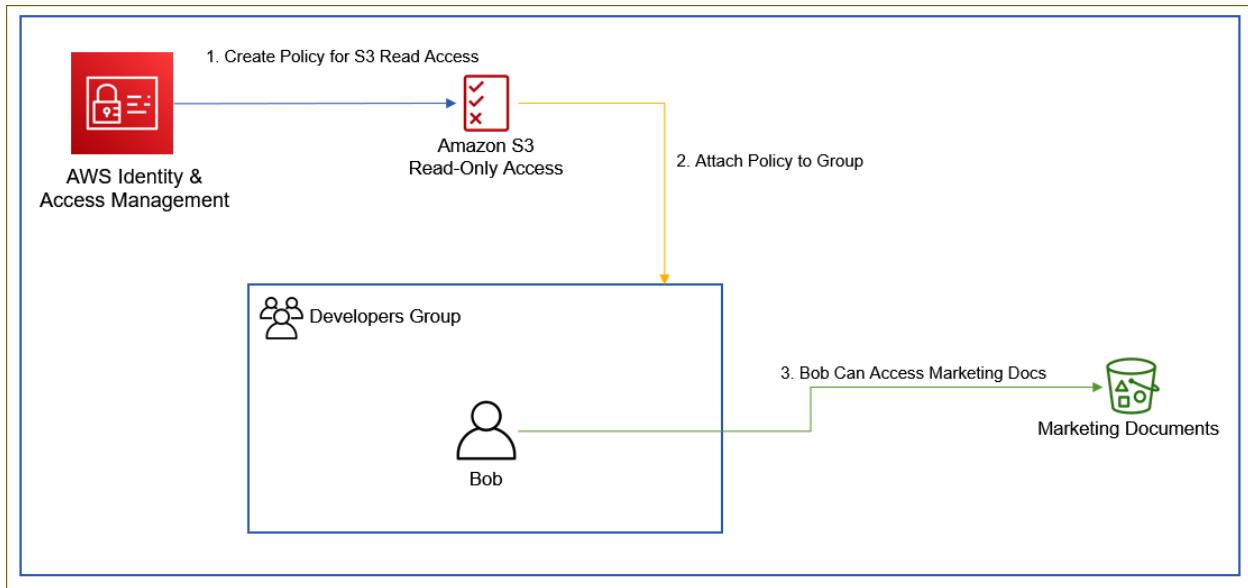
MFA code 1

MFA code 2

[Cancel](#)

[Previous](#)

[Assign MFA](#)



Show Policy

X

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Action": [  
                "s3:Get*",  
                "s3>List*"  
            ],  
            "Resource": "*"  
        }  
    ]  
}
```

```
1 {  
2     "Version": "2012-10-17",  
3     "Statement": [  
4         {  
5             "Effect": "Allow",  
6             "Action": [  
7                 "s3:Get*",  
8                 "s3>List*"  
9             ],  
10            "Resource": "arn:aws:s3:::packt-marketing-docs"  
11        }  
12    ]  
13 }
```

Policies [Back](#) [Create New Policy](#)

Selected group: DBTeam

IAM Policies

Filter

 AmazonS3FullAccess

Custom IAM Policies

There are no policies to display!

Policy Simulator

Amazon RDS [▼](#) 1 Action(s) sele... [Select All](#) [Deselect All](#) [Reset Contexts](#) [Clear Results](#) [Run Simulation](#)

► Global Settings [i](#)

Action Settings and Results [1 actions selected. 0 actions not simulated. 0 actions allowed. 1 actions denied.]

Service	Action	Resource Type	Simulation Resource	Permission
Amazon RDS	CreateDBInstance	og,pg,db,subgrp,s...	*	denied Implicity denied (no match...)



Sandbox ▲

Global ▼

Support ▼

My Account 451147979072



My Organization

My Service Quotas

My Billing Dashboard

My Security Credentials

Sign Out

Showing 2 results

MFA

Not enabled

Not enabled

Sign in

Root user

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

IAM user

User within an account that performs daily tasks.
[Learn more](#)

Account ID (12 digits) or account alias

Next



john @ 4511-4797-9072 ▾

Ohio ▾

Support ▾

Stay connected to your AWS resources on-the-go



Download the AWS Console Mobile App to your iOS or Android mobile device.

[Learn more](#) 

Windows

Download and run the [64-bit Windows installer](#).

MacOS

Download and run the [MacOS PKG installer](#).

Linux

Download, unzip, and then run the [Linux installer](#)

Amazon Linux

The AWS CLI comes pre-installed on [Amazon Linux AMI](#).

 Command Prompt

```
C:\>
```

 Command Prompt

```
C:\>aws configure
AWS Access Key ID [*****OU52]: AKIAWSCUD3FAAKYQSTDI
AWS Secret Access Key [*****lZDy]: FhhDyjDA8Bmmgp6nJej2piY/JmDjqB61j3ocxHm
Default region name [us-east-1]: us-east-1
Default output format [None]:
```

```
C:\>
```

Command Prompt

```
C:\>aws configure
AWS Access Key ID [*****STDI]: AKIAWSCUD3FAG5BVRYRG
AWS Secret Access Key [*****cxHm]: 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
Default region name [us-east-1]: us-east-1
Default output format [None]:  
  
C:\>aws s3 ls
2021-01-27 10:52:08 packt-marketing-docs  
  
C:\>
```

Add user

1 2 3 4 5

Set permissions

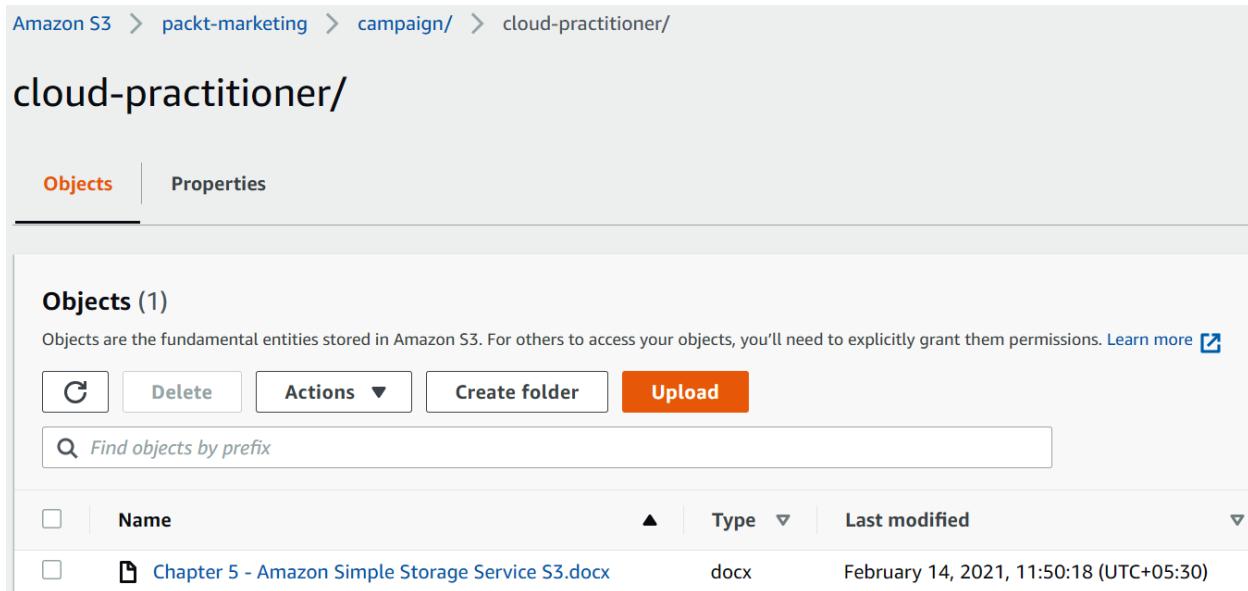
Add user to group Copy permissions from existing user Attach existing policies directly

Create policy

Filter policies ▾ Search Showing 670 results

	Policy name ▾	Type	Used as
<input checked="" type="checkbox"/>	AdministratorAccess	Job function	Permissions policy (1)
<input type="checkbox"/>	AdministratorAccess-Amplify	AWS managed	None
<input type="checkbox"/>	AdministratorAccess-AWSElasticBeanstalk	AWS managed	None

Chapter 5: Amazon Simple Storage Service (S3)



The screenshot shows the Amazon S3 console interface. The path is listed as Amazon S3 > packt-marketing > campaign/ > cloud-practitioner/. Below this, the folder 'cloud-practitioner/' is shown. A navigation bar at the top has 'Objects' selected (highlighted in orange) and 'Properties' as an option. The main area is titled 'Objects (1)' and contains a message about objects being fundamental entities stored in S3. It includes buttons for 'Delete', 'Actions', 'Create folder', and 'Upload'. A search bar labeled 'Find objects by prefix' is present. A table lists the single object: 'Chapter 5 - Amazon Simple Storage Service S3.docx' (Type: docx, Last modified: February 14, 2021, 11:50:18 (UTC+05:30)).

```
{  
  "Id": "Policy1613373871314",  
  "Version": "2012-10-17",  
  "Statement": [  
    {  
      "Sid": "Stmt1613373870082",  
      "Action": [  
        "s3:GetObject"  
      ],  
      "Effect": "Allow",  
      "Resource": "arn:aws:s3:::packt-marketing/*",  
      "Principal": "*"  
    }  
}
```

```
{  
    "Version": "2012-10-17",  
    "Id": "S3PolicyId1",  
    "Statement": [  
        {  
            "Sid": "IPAllow",  
            "Effect": "Deny",  
            "Principal": "*",  
            "Action": "s3:*",  
            "Resource": [  
                "arn:aws:s3:::packt-marketing",  
                "arn:aws:s3:::packt-marketing/*"  
            ],  
            "Condition": {  
                "NotIpAddress": {"aws:SourceIp": "w.x.y.z/c"}  
            }  
        }  
    ]  
}
```

Upload speed comparison in the selected region

Virginia
(US-EAST-1)

44% faster

S3 Direct Upload Speed



S3 Accelerated Transfer Upload Speed



This speed checker uses multipart uploads to transfer a file from your browser to various Amazon S3 regions with and without Amazon S3 Transfer Acceleration. It compares the speed results and shows the percentage difference for every region.

Note: In general, the farther away you are from an Amazon S3 region, the higher the speed improvement you can expect from using Amazon S3 Transfer Acceleration. If you see similar speed results with and without the acceleration, your upload bandwidth or a system constraint might be limiting your speed.

Upload speed comparison in other regions

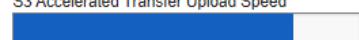
San Francisco
(US-WEST-1)

3% faster

S3 Direct Upload Speed



S3 Accelerated Transfer Upload Speed



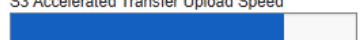
Oregon
(US-WEST-2)

10% faster

S3 Direct Upload Speed



S3 Accelerated Transfer Upload Speed



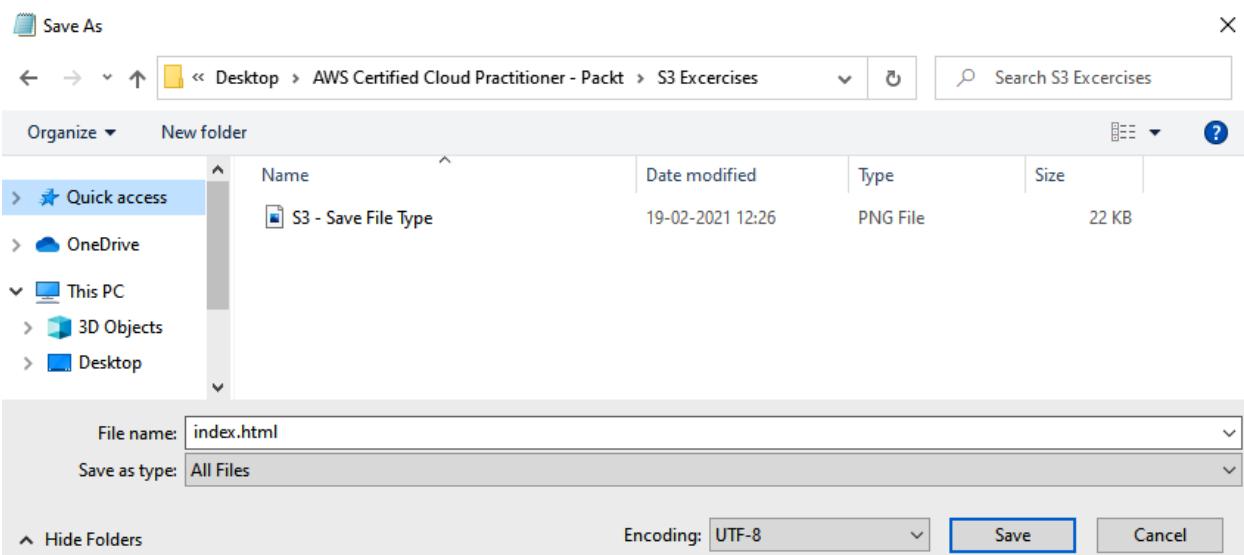
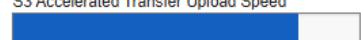
Dublin
(EU-WEST-1)

1% faster

S3 Direct Upload Speed



S3 Accelerated Transfer Upload Speed



Amazon S3

Buckets (1)

Buckets are containers for data stored in S3. Learn more [\[?\]](#)

Find buckets by name

Name ▲ AWS Region ▼ Access ▼ Creation date ▼

Create bucket

⚠️ Turning off block all public access might result in this bucket and the objects within becoming public
AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

- I acknowledge that the current settings might result in this bucket and the objects within becoming public.

Upload

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more \[?\]](#)

Drag and drop files and folders you want to upload here, or choose **Add files**, or **Add folders**.

Files and folders (0)

All files and folders in this table will be uploaded.

Find by name

Name ▲ Folder ▼ Type ▼ Size ▼

Remove **Add files** **Add folder**

Object overview

Owner	S3 URI
support	s3://rajesh-webpage/index.html
AWS Region	Amazon resource name (ARN)
US East (N. Virginia) us-east-1	arn:aws:s3:::rajesh-webpage/index.html
Last modified	Entity tag (Etag)
February 19, 2021, 14:41:17 (UTC+05:30)	cc6d150efc760503c5168edb9c2b7b7b
Size	Object URL
556.0 B	https://rajesh-webpage.s3.amazonaws.com/index.html
Type	
html	

rajesh-webpage

Objects Properties Permissions Metrics Management Access Points

Objects (1)

Objects are the fundamental entities stored in Amazon S3. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	February 19, 2021, 14:41:17 (UTC+05:30)	556.0 B	Standard

⌚ Successfully edited bucket policy.

Amazon S3 > rajesh-webpage

rajesh-webpage

Publicly accessible

Objects

Properties

Permissions

Metrics

Management

Access Points

Permissions overview

Access

⚠️ Public

← → C 🔒 rajesh-webpage.s3.amazonaws.com/index.html

Blueberry Muffin Recipe

Bake the ultimate blueberry muffins for your guests and loved ones. This recipe shows you how

Ingredients:

- 100g fresh **blueberries**
- 300g flour
- 150g granulated sugar
- 1 tsp. vanilla
- 60 ml vegetable oil
- 50g of butter

Amazon S3 > rajesh-webpage

rajesh-webpage

Publicly accessible

Objects Properties Permissions Metrics Management Access Points

Objects (1)

Objects are the fundamental entities stored in Amazon S3. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

List versions Delete Actions Create folder Upload

Find objects by prefix

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	February 19, 2021, 14:41:17 (UTC+05:30)	556.0 B	Standard

← → C rajesh-webpage.s3.amazonaws.com/index.html

Chocolate Muffin Recipe

Bake the ultimate blueberry muffins for your guests and loved ones.

Ingredients:

- 100g fresh **blueberries**
- 300g flour
- 150g granulated sugar
- 1 tsp. vanilla
- 60 ml vegetable oil
- 50g of butter

[Copy S3 URI](#)[Object actions ▾](#)

index.html

[Properties](#)[Permissions](#)[Versions](#)

Versions (2)

[Delete](#)[Actions ▾](#)

< 1 >

<input type="checkbox"/>	Version ID	Type	Last modified	Size	Storage class
<input type="checkbox"/>	uWuZYO_AX6HbL_tT6GSD5A1.O2lyw.9p (Current version)	html	February 19, 2021, 18:07:23 (UTC+05:30)	556.0 B	Standard
<input type="checkbox"/>	↳ null	html	February 19, 2021, 14:41:17 (UTC+05:30)	556.0 B	Standard

Upload succeeded

View details below.

Upload: status

[Exit](#)

The information below will no longer be available after you navigate away from this page.

Summary

Destination
<s3://rajesh-webpage>

Succeeded

🕒 1 file, 30.0 B (100.00%)

Failed

🕒 0 files, 0 B (0%)

Static website hosting

[Edit](#)Use this bucket to host a website or redirect requests. [Learn more](#)

Static website hosting

Enabled

Hosting type

Bucket hosting

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)<http://rajesh-webpage.s3-website-us-east-1.amazonaws.com>

Chocolate Muffin Recipe

Bake the ultimate blueberry muffins for your guests and loved ones.

Ingredients:

- 100g fresh **blueberries**
- 300g flour
- 150g granulated sugar
- 1 tsp. vanilla
- 60 ml vegetable oil
- 50g of butter

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with navigation links like 'Buckets', 'Storage Lens', 'Feature spotlight', and 'AWS Marketplace'. The main area displays the 'rajesh-webpage' bucket, which is 'Publicly accessible'. It contains two objects: 'error.html' and 'index.html'. Both files are of type 'html' and were last modified on February 19, 2021. The 'error.html' file is 30.0 B in size, and the 'index.html' file is 556.0 B in size. The storage class for both is 'Standard'.

Name	Type	Last modified	Size	Storage class
error.html	html	February 19, 2021, 18:49:17 (UTC+05:30)	30.0 B	Standard
index.html	html	February 19, 2021, 18:07:23 (UTC+05:30)	556.0 B	Standard

Objects (3)

Objects are the fundamental entities stored in Amazon S3. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

List versions

Find objects by prefix < 1 > 

<input type="checkbox"/>	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	 error.html	html	4JV9rFz1wiX7epF4swhlCmE3a0X.Q_Ka	February 19, 2021, 18:49:17 (UTC+05:30)	30.0 B	Standard
<input type="checkbox"/>	 index.html	html	uWuZYOA_X6HbL_tT6GSD5A1.O2lyw.9p	February 19, 2021, 18:07:23 (UTC+05:30)	556.0 B	Standard
<input type="checkbox"/>	 index.html	html	null	February 19, 2021, 14:41:17 (UTC+05:30)	556.0 B	Standard

Permanently delete objects?

To confirm deletion, type *permanently delete* in the text input field.

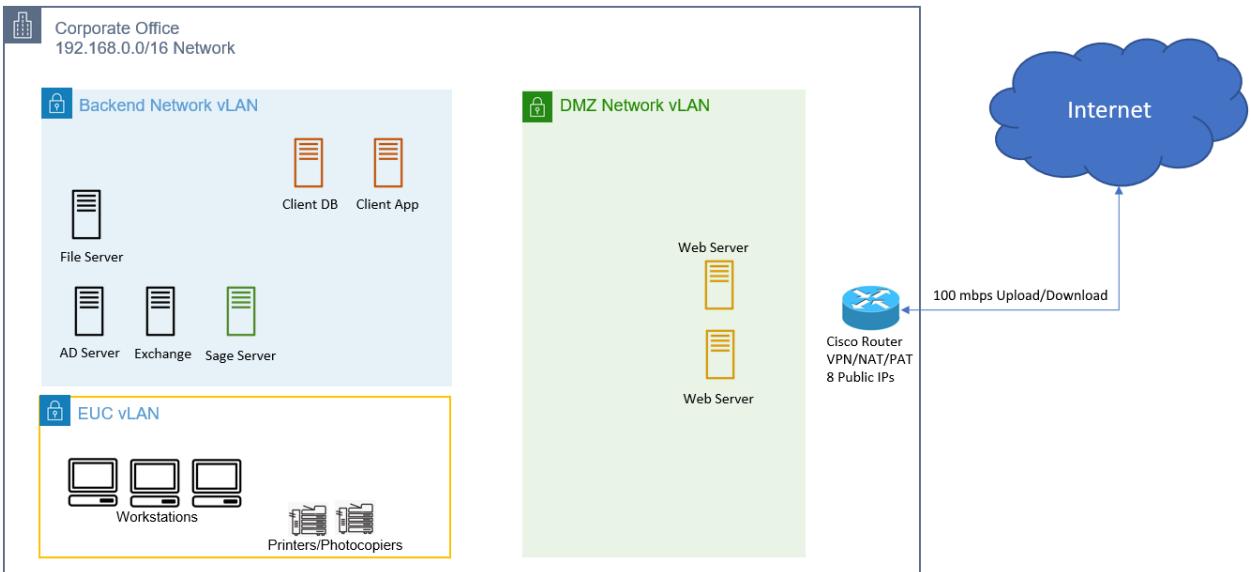
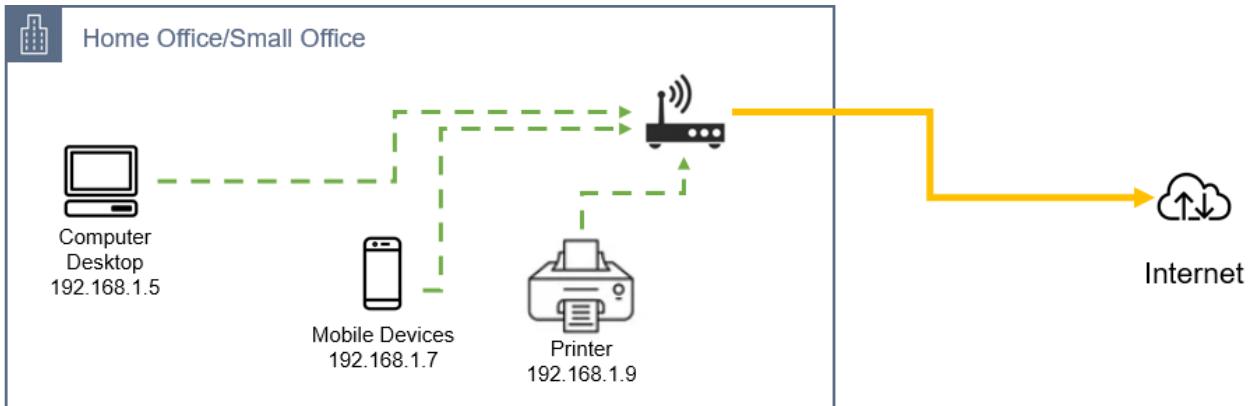
Blueberry Muffin Recipe

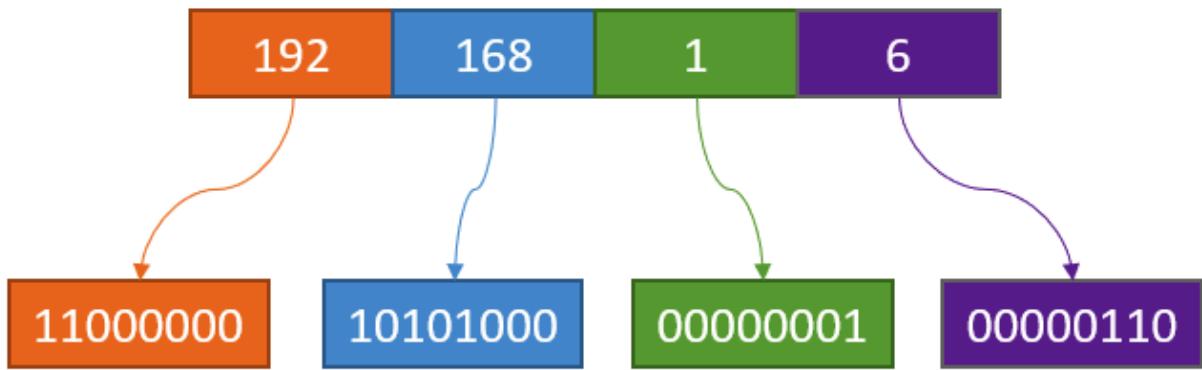
Bake the ultimate blueberry muffins for your guests and loved ones.

Ingredients:

- 100g fresh **blueberries**
- 300g flour
- 150g granulated sugar
- 1 tsp. vanilla
- 60 ml vegetable oil
- 50g of butter

Chapter 6: AWS Networking Services – VPCs, Route 53, and CloudFront





X represents a '0' or '1' in binary

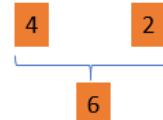
	X	X	X	X	X	X	X	X
Place value:	$x \cdot 2^7$ or $x \cdot 128$	$x \cdot 2^6$ or $x \cdot 64$	$x \cdot 2^5$ or $x \cdot 32$	$x \cdot 2^4$ or $x \cdot 16$	$x \cdot 2^3$ or $x \cdot 8$	$x \cdot 2^2$ or $x \cdot 4$	$x \cdot 2^1$ or $x \cdot 2$	$x \cdot 2^0$ or $x \cdot 1$

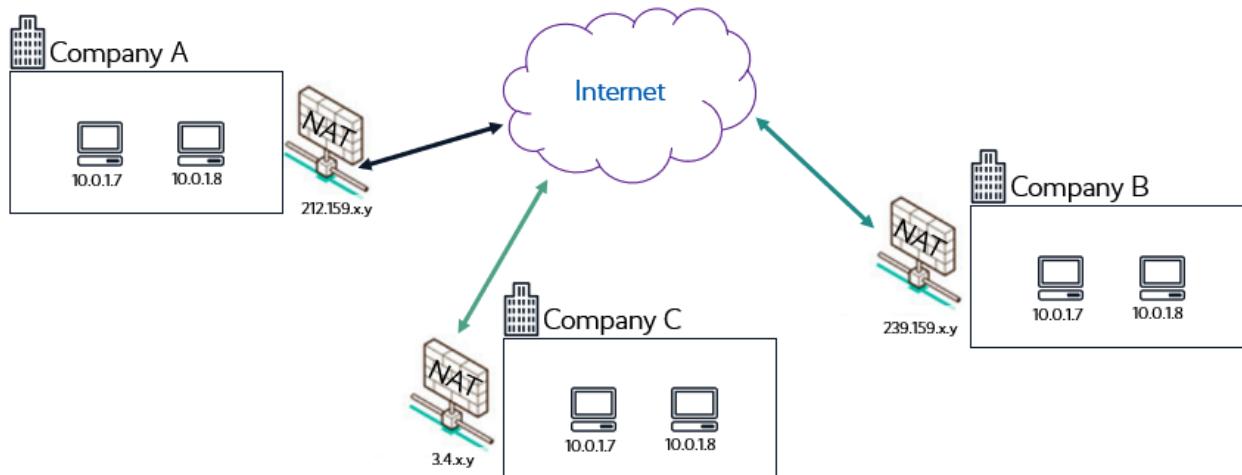
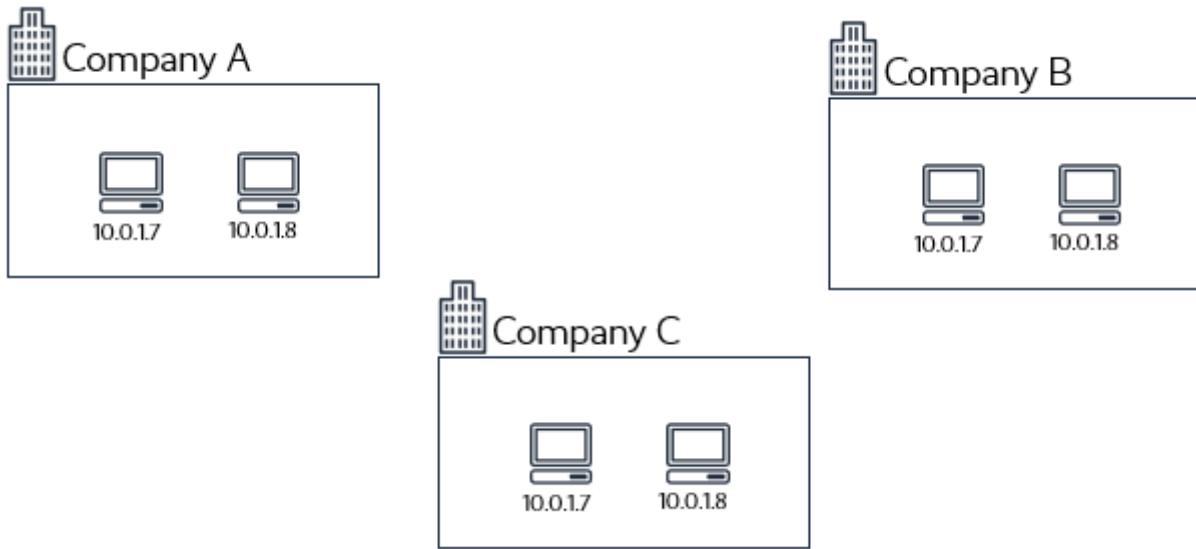
X represents a '0' or '1' in binary

	X	X	X	X	X	X	X	X
Place value:	$x \cdot 2^7$ or $x \cdot 128$	$x \cdot 2^6$ or $x \cdot 64$	$x \cdot 2^5$ or $x \cdot 32$	$x \cdot 2^4$ or $x \cdot 16$	$x \cdot 2^3$ or $x \cdot 8$	$x \cdot 2^2$ or $x \cdot 4$	$x \cdot 2^1$ or $x \cdot 2$	$x \cdot 2^0$ or $x \cdot 1$

0	0	0	0	0	1	1	0
---	---	---	---	---	---	---	---

Place value:







Network Portion
(8 bits)
Range – 0-127

Host Portion
(24 bits)



Network Portion
(16 bits)
Range 128-191

Host Portion
(16 bits)



Network Portion
(24 bits)
Range 192-223

Host Portion
(8 bits)



Network Portion (24 Bits) Host Portion (8 Bits)



Network Portion (24 Bits) Host Portion (8 Bits)

IP Address Block 192.168.1.0	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 0 0 0 0 0 0 0 0
Subnet Mask 255.255.255.0	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0

IP Address Block 192.168.1.0	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 0 0 0 0 0 0 0 0
Subnet Mask 255.255.255.0	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 0 0 0 0 0 0

IP Address Block 192.168.1.0	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 0 0 0 0 0 0 0 0
Subnet Mask 255.255.255. 224	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 0 0 0 0 0 0

255

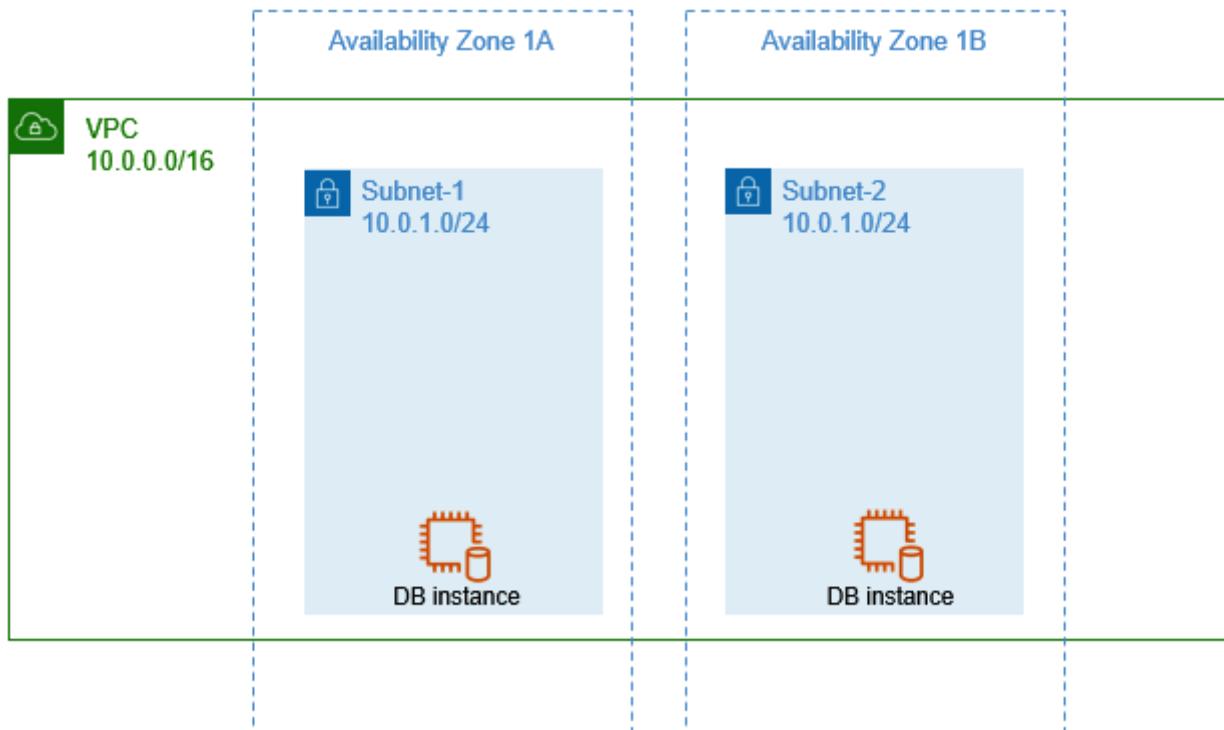
255

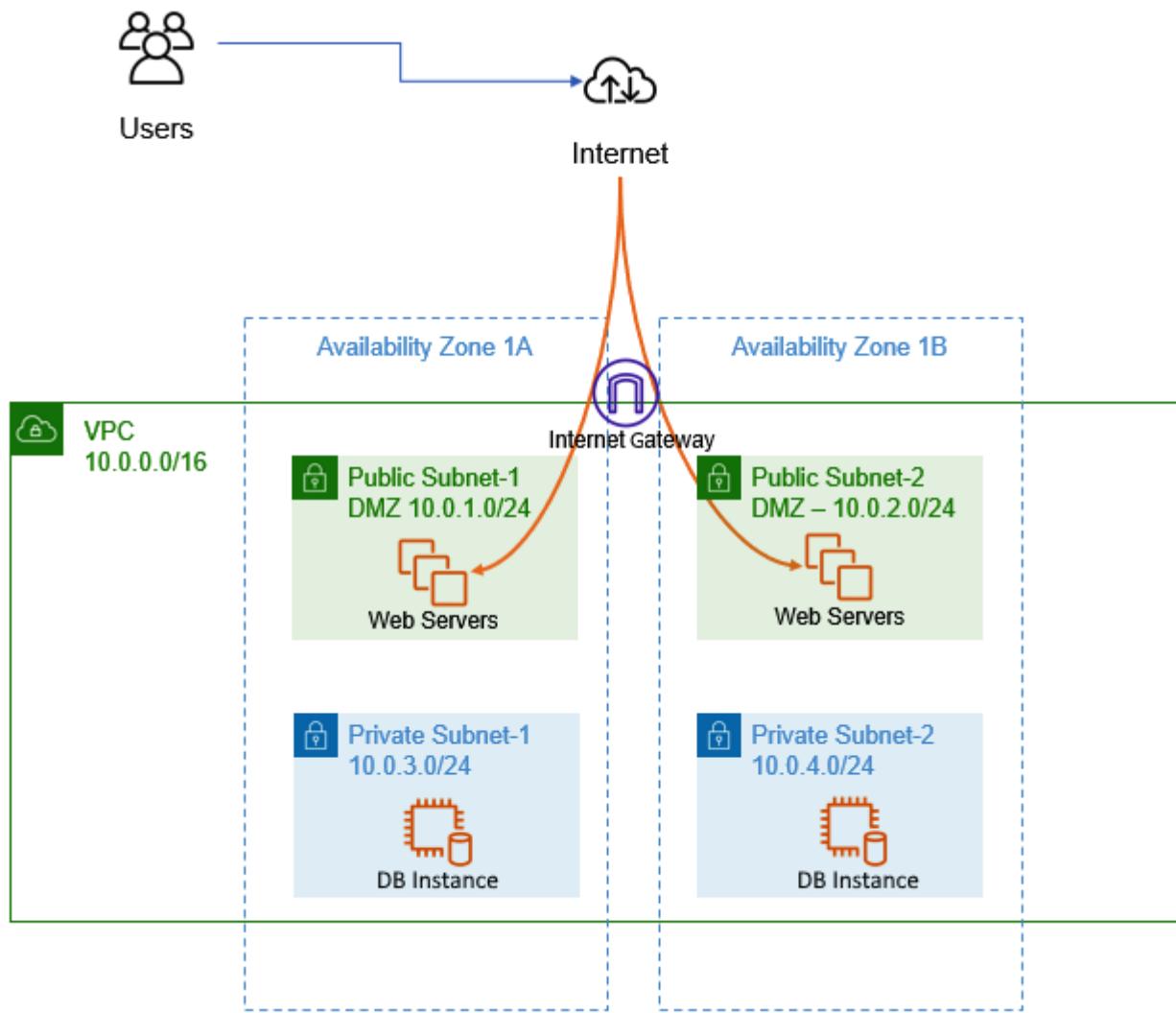
255

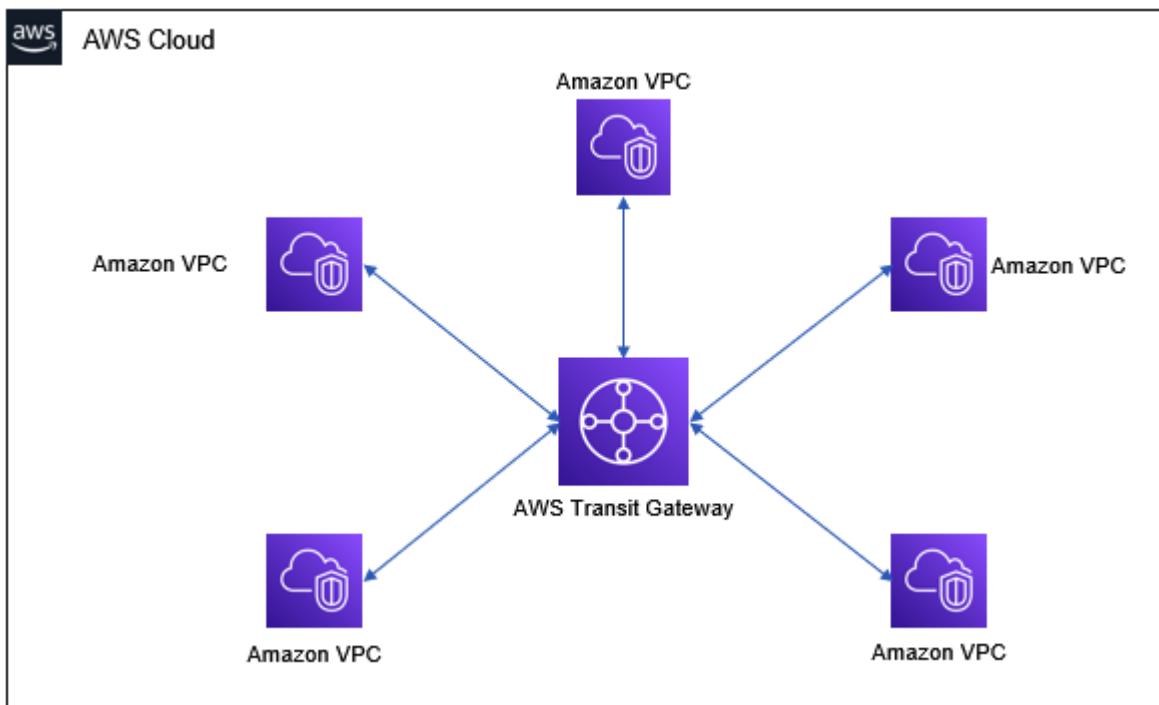
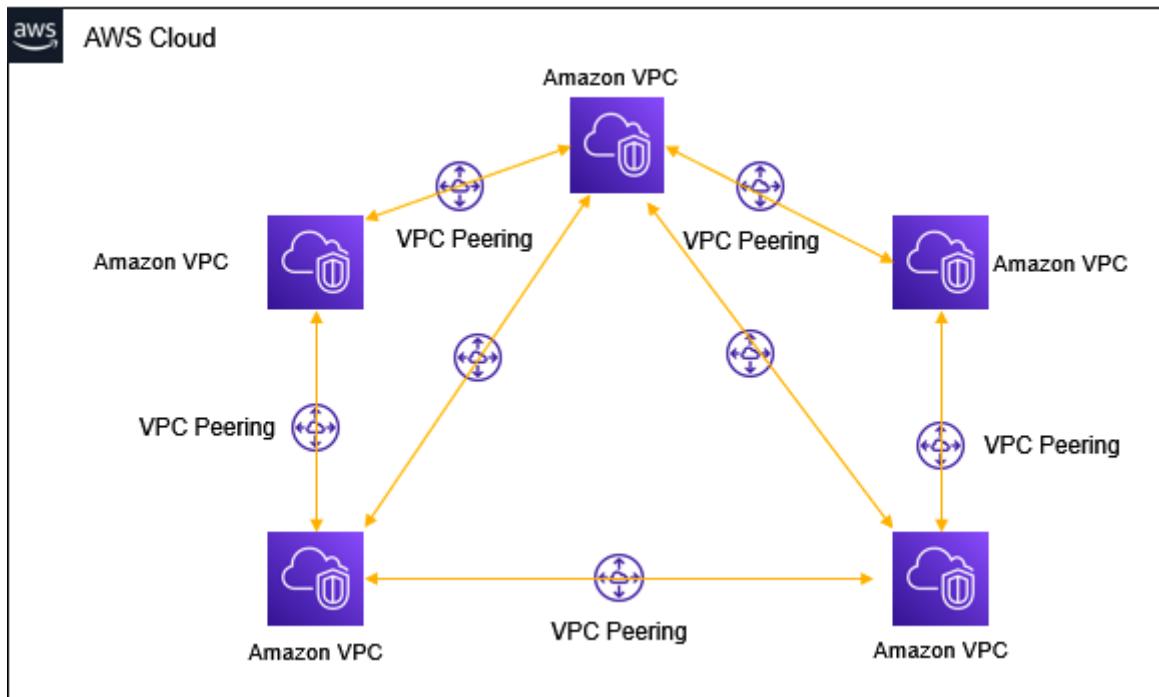
224

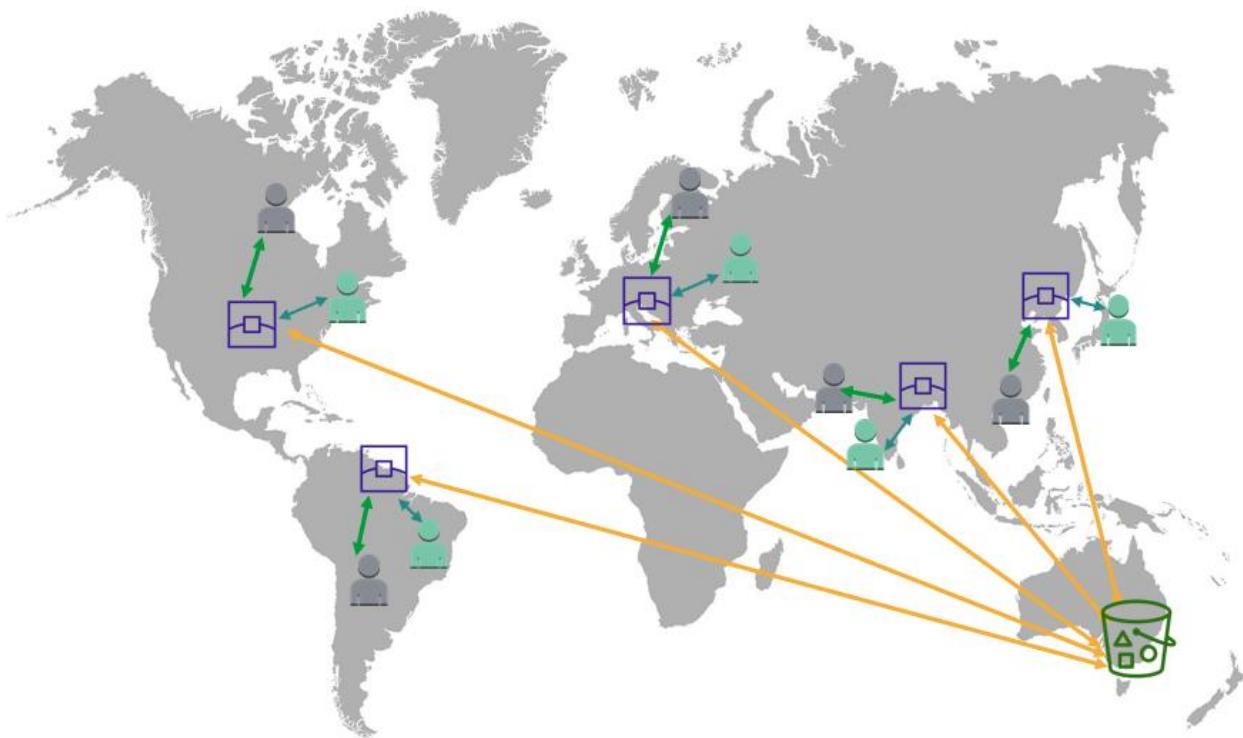
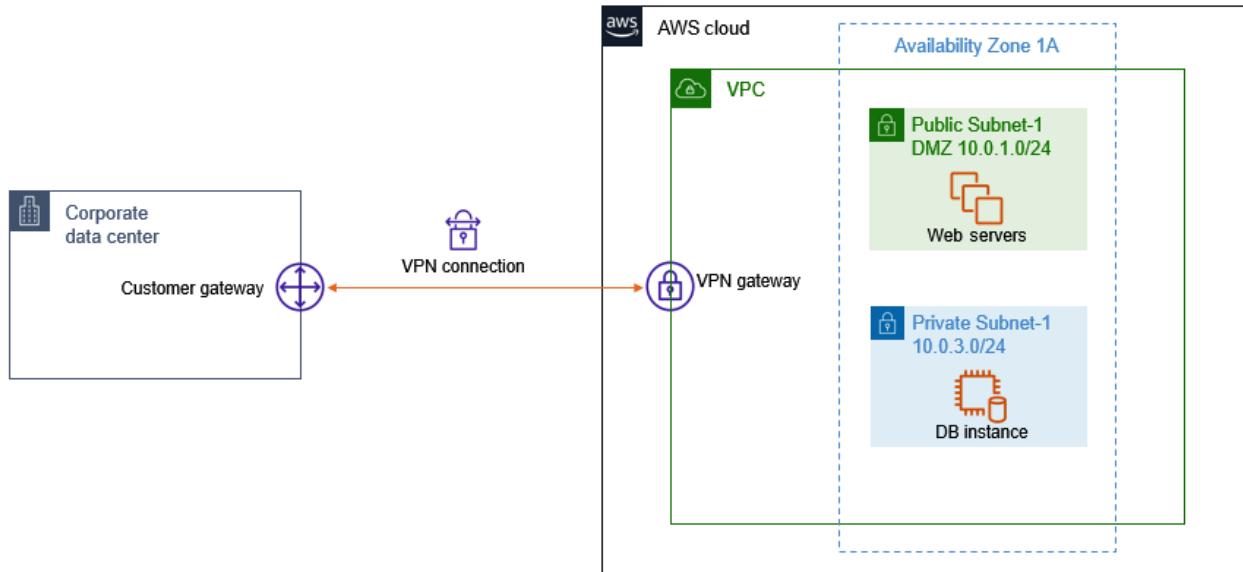
	255	255	255	224
Subnet Mask 255.255.255. 224	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 0 0 0 0 0 0
IP Address Block 1 192.168.1.0	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 0 0 0 0 0 0 0 0
IP Address Block 2 192.168.1.32	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 0 1 0 0 0 0 0 0
IP Address Block 3 192.168.1.64	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 1 0 0 0 0 0 0 0
IP Address Block 4 192.168.1.96	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	0 1 1 0 0 0 0 0 0
IP Address Block 5 192.168.1.128	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	1 0 0 0 0 0 0 0 0
IP Address Block 5 192.168.1.160	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	1 0 1 0 0 0 0 0 0
IP Address Block 6 192.168.1.192	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	1 1 0 0 0 0 0 0 0
IP Address Block 5 192.168.1.224	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	1 1 1 0 0 0 0 0 0

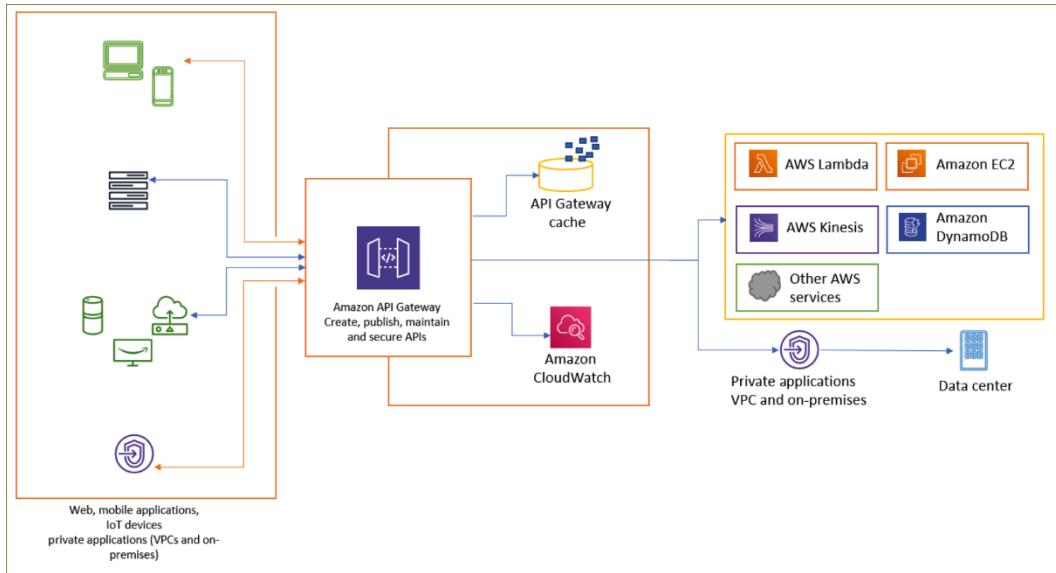
IP Address Block 1 192.168.1.130	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	1 0 0 0 0 0 0 1 0
Subnet Mask 255.255.255. 224	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 0 0 0 0 0 0
	255	255	255	224
Logical AND	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 0 0 0 0 0 0 0 0
IP Address Block 5 192.168.1.128	1 1 0 0 0 0 0 0 0	1 0 1 0 1 0 0 0 0	0 0 0 0 0 0 0 0 1	1 0 0 0 0 0 0 0 0











The screenshot shows the AWS search results for the term 'vpc'. The search bar at the top contains 'vpc'. The results are categorized under 'Services' (5), 'Features' (22), 'Documentation' (34,959), and 'Marketplace' (269). The 'Services' section lists three items: 'VPC' (Isolated Cloud Resources), 'AWS Network Firewall' (AWS Network Firewall), and 'AWS Firewall Manager' (Central management of firewall rules). A link to 'See all 5 results' is also present.

Step 2: VPC with a Single Public Subnet

IPv4 CIDR block*: (65531 IP addresses available)

IPv6 CIDR block: No IPv6 CIDR Block
 Amazon provided IPv6 CIDR block
 IPv6 CIDR block owned by me

VPC name:

Public subnet's IPv4 CIDR*: (251 IP addresses available)

Availability Zone*:

Subnet name:

You can add more subnets after AWS creates the VPC.

Service endpoints

Add Endpoint

Enable DNS hostnames*: Yes No

Hardware tenancy*:

[Cancel and Exit](#) [Back](#) [Create VPC](#)

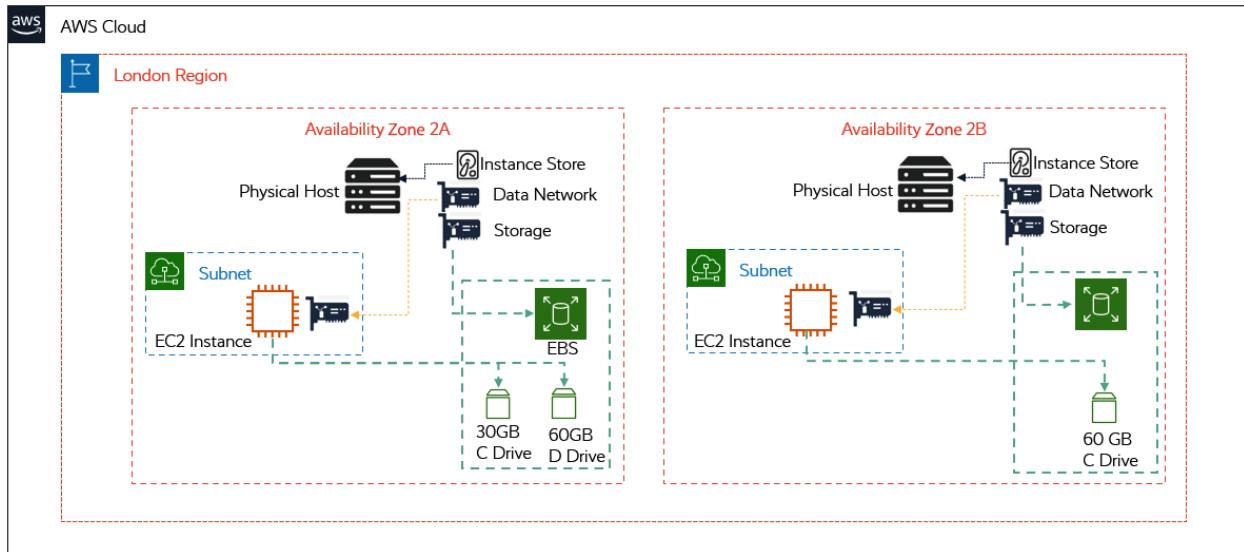
⌚ You successfully deleted **vpn-60c9011a / RDSVPC** and **9 other resources**.

▶ Details

Your VPCs (2) [Info](#)

<input type="checkbox"/>	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR (Network border group)
<input type="checkbox"/>	ProductionVPC	vpn-014f20cad69ba36e6	Available	10.0.0.0/16	-
<input type="checkbox"/>		vpn-bce342d8	Available	172.31.0.0/16	-

Chapter 7: AWS Compute Services

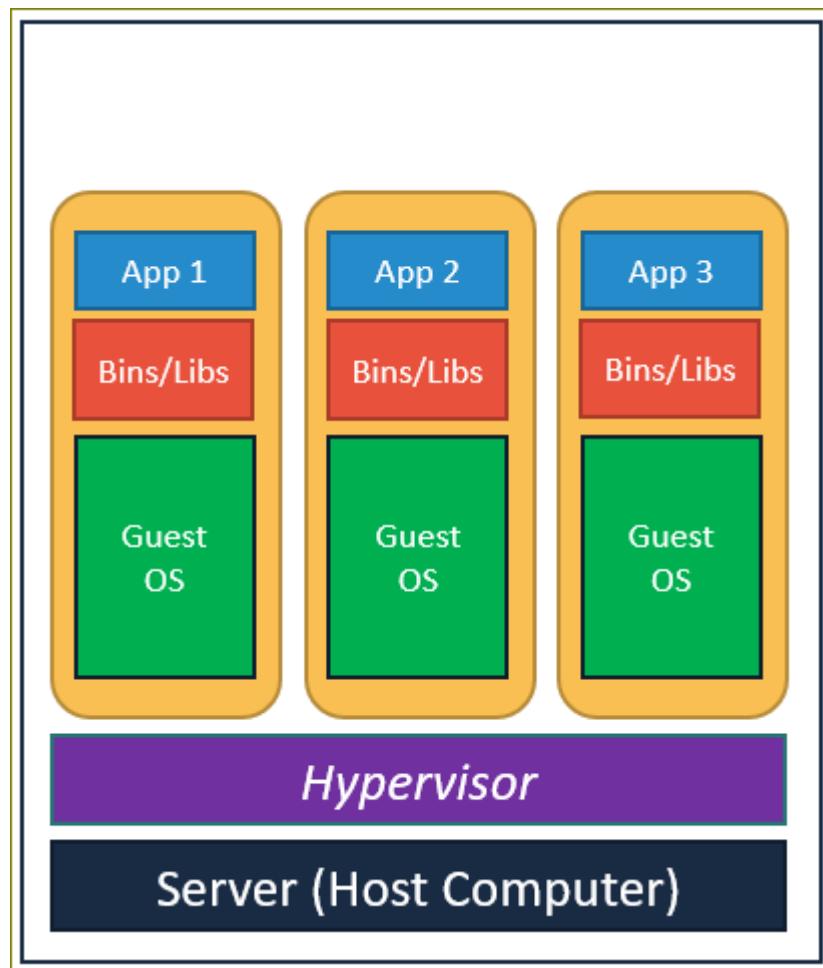


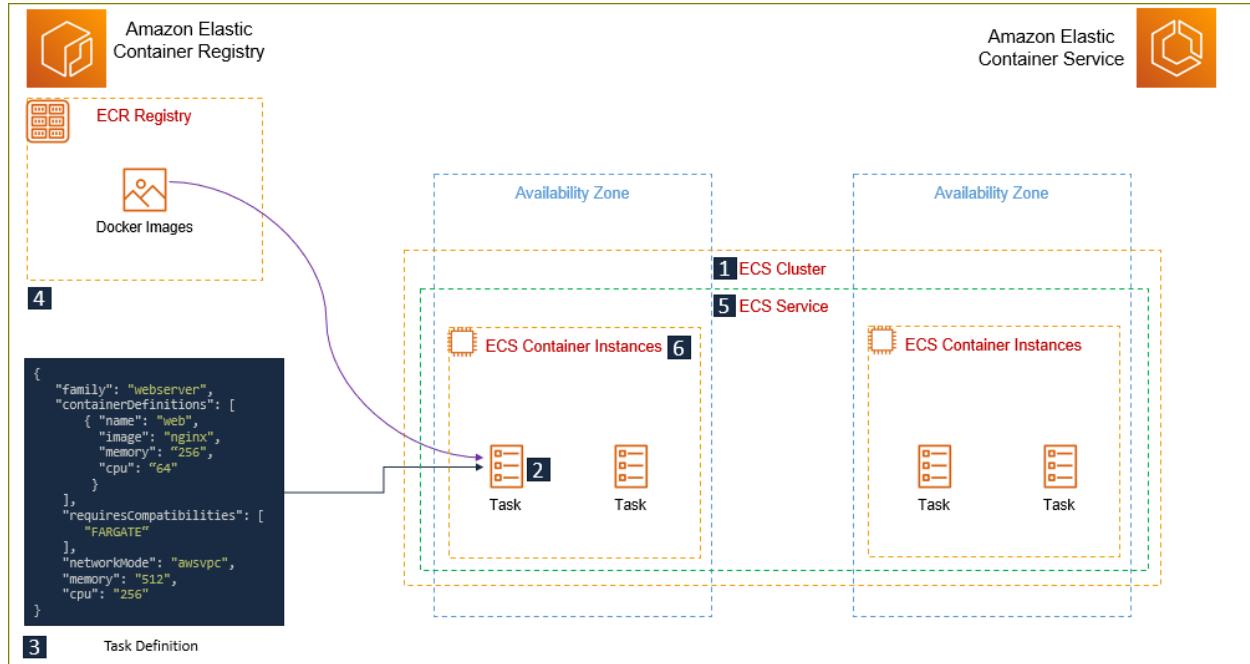
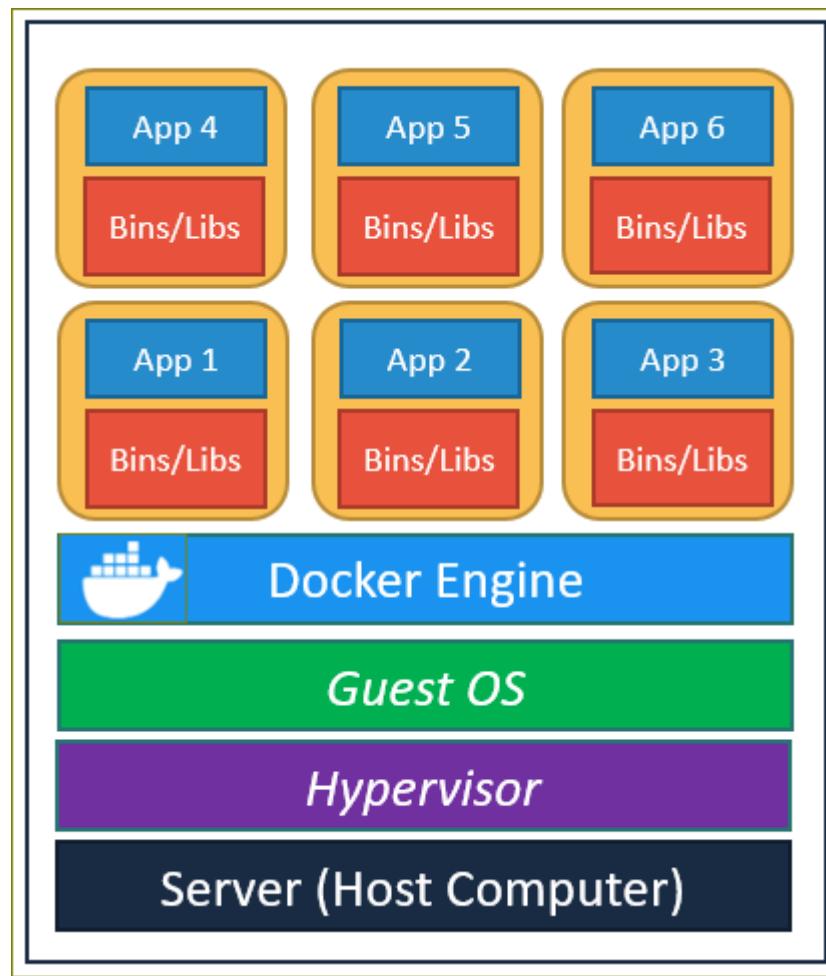
	Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-06178cf087598769c (64-bit x86) / ami-025e95bc52b79028e (64-bit Arm)	Select
	Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type	<input checked="" type="radio"/> 64-bit (x86) <input type="radio"/> 64-bit (Arm)
	Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	
	SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-0d7db5fc4b5075b0d (64-bit x86) / ami-0fdd4500e38324e55 (64-bit Arm)	Select
	SUSE Linux Enterprise Server 15 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Amazon EC2 AMI Tools preinstalled; Apache 2.2, MySQL 5.5, PHP 5.3, and Ruby 1.8.7 available.	<input checked="" type="radio"/> 64-bit (x86) <input type="radio"/> 64-bit (Arm)
	Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	
	Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-096cb92bb3580c759 (64-bit x86) / ami-0b6b4a4f618813290 (64-bit Arm)	Select
	Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).	<input checked="" type="radio"/> 64-bit (x86) <input type="radio"/> 64-bit (Arm)
	Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	
	Microsoft Windows Server 2019 Base - ami-0543baa29ba4758fd	Select
	Microsoft Windows 2019 Datacenter edition. [English]	64-bit (x86)
	Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	

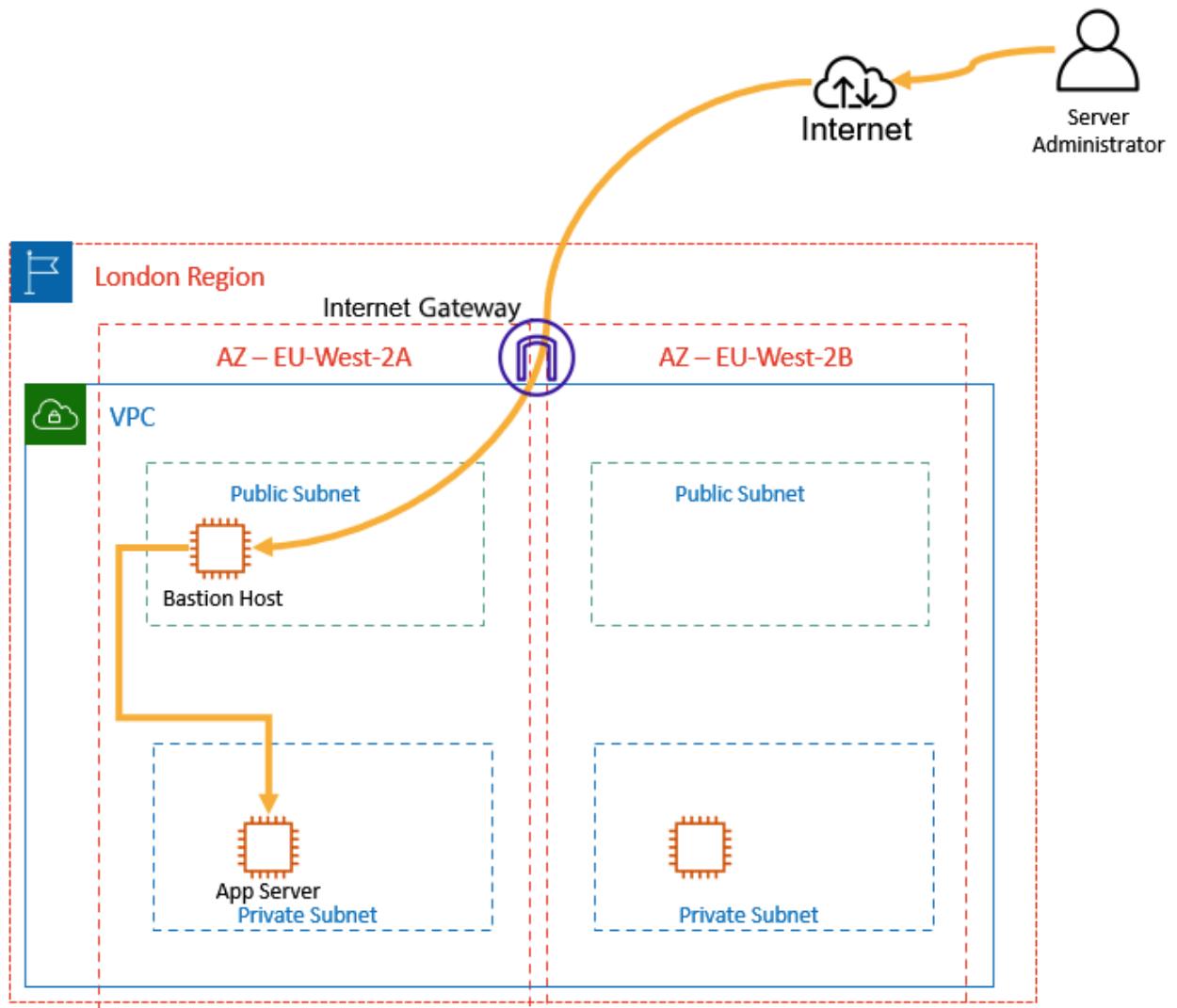
Instance Size	vCPU	Memory (GiB)	Instance Storage (GiB)	Network Bandwidth (Gbps)	EBS Bandwidth (Mbps)
m5.large	2	8	EBS-Only	Up to 10	Up to 4,750
m5.xlarge	4	16	EBS-Only	Up to 10	Up to 4,750
m5.2xlarge	8	32	EBS-Only	Up to 10	Up to 4,750
m5.4xlarge	16	64	EBS-Only	Up to 10	4,750

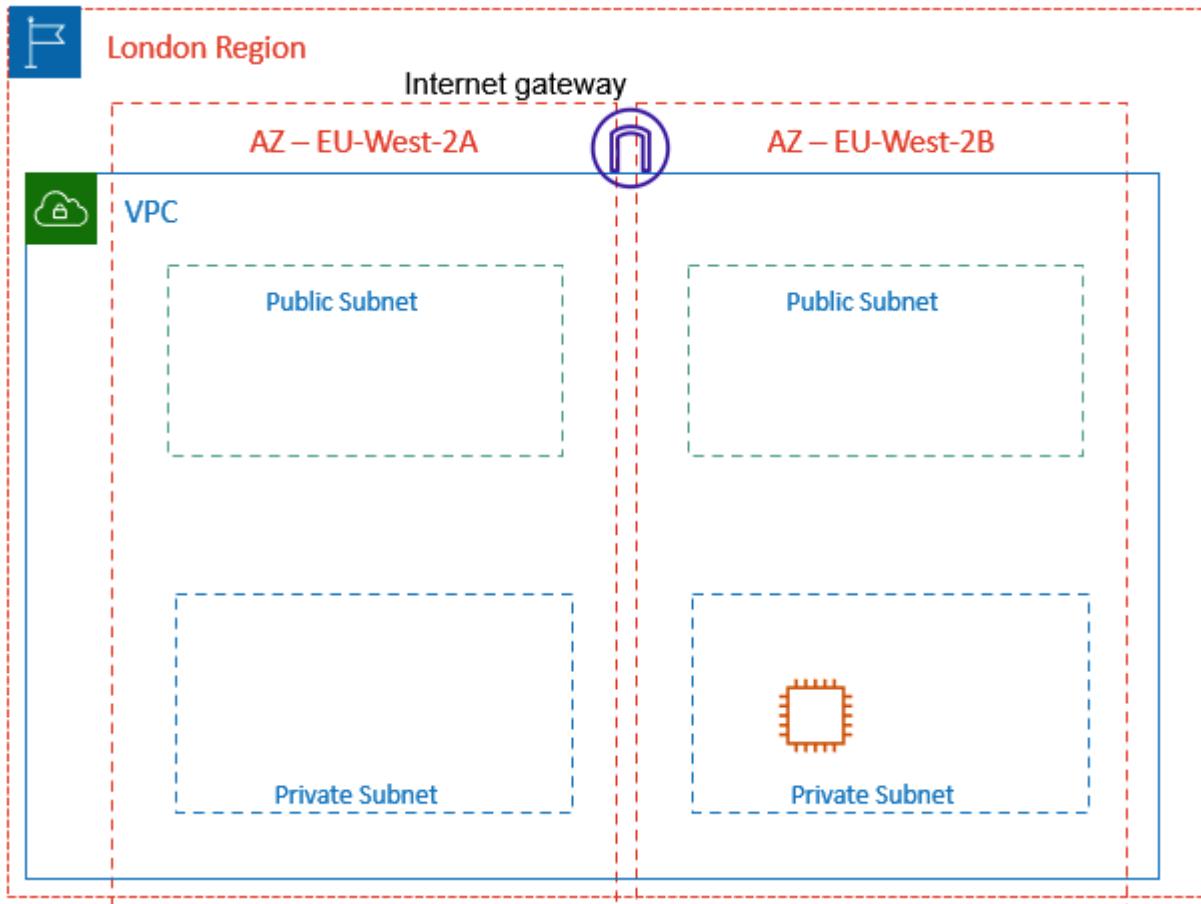
t2.micro

STANDARD 1-YEAR TERM					
Payment Option	Upfront	Monthly*	Effective Hourly**	Savings over On-Demand	On-Demand Hourly
No Upfront	\$0	\$5.26	\$0.007	38%	\$0.0116
Partial Upfront	\$30	\$2.48	\$0.007	41%	
All Upfront	\$59	\$0.00	\$0.007	42%	









Subnets (7) Info						
<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	
<input type="checkbox"/>	-	subnet-26b38028	Available	vpc-61980d1c	172.31.64.0/20	
<input type="checkbox"/>	-	subnet-ef3f78ce	Available	vpc-61980d1c	172.31.80.0/20	
<input type="checkbox"/>	-	subnet-8993eaef	Available	vpc-61980d1c	172.31.0.0/20	
<input type="checkbox"/>	-	subnet-d5f8828a	Available	vpc-61980d1c	172.31.32.0/20	
<input type="checkbox"/>	Public Subnet One	subnet-0034c3ce989fab016	Available	vpc-06de8d92837535119 ProductionVPC	10.0.0.0/24	

Route tables (1/3) [Info](#)

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associations	Edge a...	Main	VPC
<input type="checkbox"/>	-	rtb-13d4c46d	-	-	Yes	vpc-61980d1c
<input type="checkbox"/>	-	rtb-0452c63c6d2aa3a88	subnet-0034c3ce989fab016 / Public Subnet One	-	No	vpc-06de8d92837535119 ProductionVPC
<input checked="" type="checkbox"/>	-	rtb-0d6fb017c417d8e1b	-	-	Yes	vpc-06de8d92837535119 ProductionVPC

rtb-0d6fb017c417d8e1b

Details [Routes](#) Subnet associations Edge associations Route propagation Tags

Routes (1)

<input type="checkbox"/>	Destination	Target	Status	Propagated
<input type="checkbox"/>	10.0.0.0/16	local	Active	No

Route tables (1/3) [Info](#)

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associations	Edge a...	Main	VPC
<input type="checkbox"/>	-	rtb-13d4c46d	-	-	Yes	vpc-61980d1c
<input checked="" type="checkbox"/>	-	rtb-0452c63c6d2aa3a88	subnet-0034c3ce989fab016 / Public Subnet One	-	No	vpc-06de8d92837535119 ProductionVPC
<input type="checkbox"/>	-	rtb-0d6fb017c417d8e1b	-	-	Yes	vpc-06de8d92837535119 ProductionVPC

rtb-0452c63c6d2aa3a88

Details [Routes](#) Subnet associations Edge associations Route propagation Tags

Routes (2)

<input type="checkbox"/>	Destination	Target	Status	Propagated
<input type="checkbox"/>	10.0.0.0/16	local	Active	No
<input type="checkbox"/>	0.0.0.0/0	igw-090fc8a203a0361d6	Active	No

Route tables (1/3) [Info](#)

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	-	rtb-13d4c46d	-	-	Yes	vpc-61980d1c	451147979072
<input type="checkbox"/>	Public Route Table	rtb-0452c63c6d2aa3a88	subnet-0034c3ce989fab...	-	No	vpc-06de8d92837535119 Pr...	451147979072
<input checked="" type="checkbox"/>	Main Route Table	rtb-0d6fb017c417d8e1b	-	-	Yes	vpc-06de8d92837535119 Pr...	451147979072

Subnets (1/7) [Info](#)

Filter subnets
 Actions ▾
[Create subnet](#)

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
Public Subnet One	subnet-0034c3ce989fab016	Available	vpc-06de8d92837535119 ProductionVPC	10.0.0.0/24	-
-	subnet-1cc4482d	Available	vpc-61980d1c	172.31.48.0/20	-

subnet-0034c3ce989fab016 / Public Subnet One

[Details](#)
[Flow logs](#)
[Route table](#)
[Network ACL](#)
[Sharing](#)
[Tags](#)

Details

Subnet ID	State	VPC	IPv4 CIDR
subnet-0034c3ce989fab016	Available	vpc-06de8d92837535119 ProductionVPC	10.0.0.0/24
Available IPv4 addresses	IPv6 CIDR	Availability Zone	Availability Zone ID
251	-	us-east-1a	use1-az4

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](#)

X

Tags - optional

Key	Value - optional
<input type="text" value="Name"/> X	<input type="text" value="Public Subnet Two"/> X
Remove Add new tag	

You can add 49 more tags.

Remove Add new subnet

Cancel
Create subnet

subnet-0c076296ce7e9c3ae / Public Subnet Two

Details	Flow logs	Route table	Network ACL	Sharing	Tags
Route table: rtb-0d6fb017c417d8e1b / Main Route Table					
Edit route table association					
Routes (1)					
<input type="text" value="Filter routes"/> < 1 > ⚙️					
Destination			Target		
10.0.0.0/16			local		

Edit route table association Info

Subnet route table settings

Subnet ID

subnet-0c076296ce7e9c3ae

Route table ID

rtb-0452c63c6d2aa3a88 (Public Route Table)



Routes (2)

Filter routes

< 1 >

Destination

Target

10.0.0.0/16

local

0.0.0.0/0

igw-090fc8a203a0361d6

[Cancel](#)

[Save](#)

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



You can add 49 more tags.

Route tables (1/3) [Info](#)

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	-	rtb-13d4c46d	-	-	Yes	vpc-61980d1c	451147979072
<input type="checkbox"/>	Public Route Table	rtb-0452c63c6d2aa3a88	2 subnets	-	No	vpc-06de8d92837535119 Pr...	451147979072
<input checked="" type="checkbox"/>	Main Route Table	rtb-0d6fb017c417d8e1b	-	-	Yes	vpc-06de8d92837535119 Pr...	451147979072

Explicit subnet associations (0)

<input type="checkbox"/>	Subnet ID	IPv4 CIDR	IPv6 CIDR
No subnet associations You do not have any subnet associations.			

Subnets without explicit associations (2)

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

<input type="checkbox"/>	Subnet ID	IPv4 CIDR	IPv6 CIDR
	subnet-0d43a97f4519300f7 / Private Subnet One	10.0.3.0/24	-
	subnet-09d271d28241ce4d6 / Private Subnet Two	10.0.4.0/24	-

New VPC Experience

[Tell us what you think](#)

[DHCP Options Sets New](#)

[Elastic IPs New](#)

[Managed Prefix](#)

[Lists New](#)

[Endpoints](#)

[Endpoint Services](#)

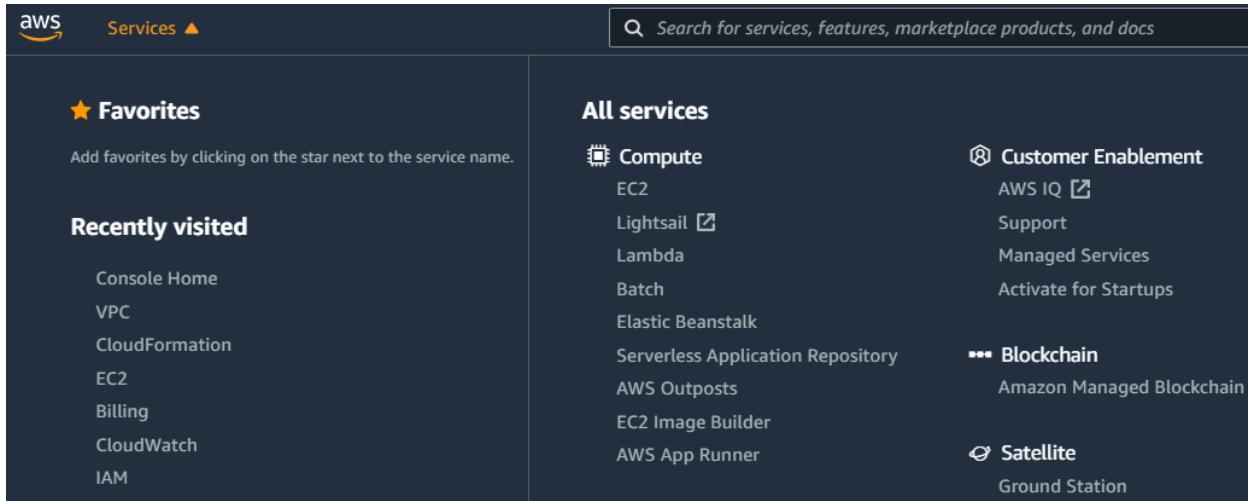
[NAT Gateways New](#)

[Peering Connections](#)

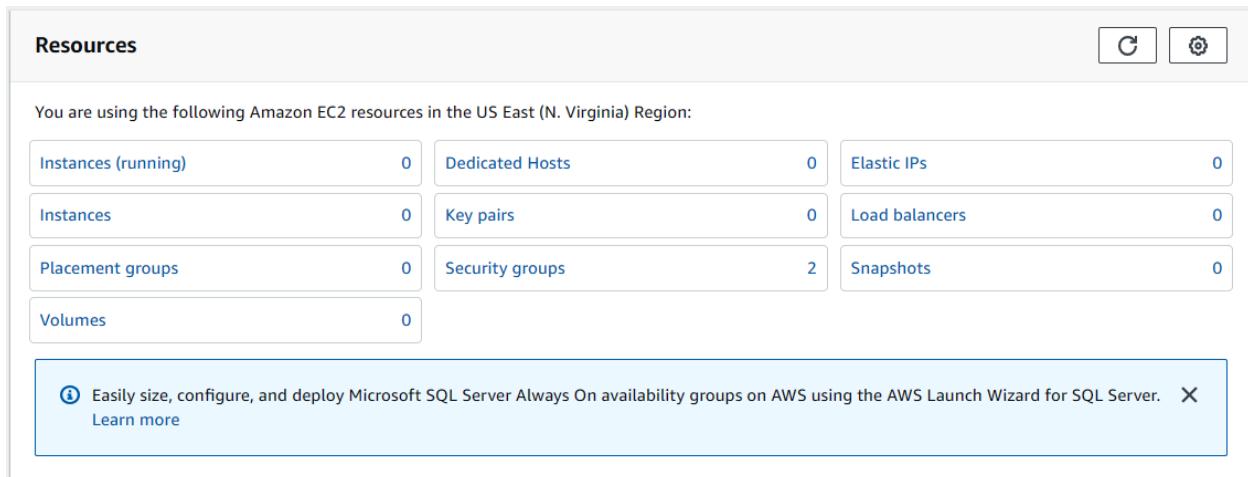
▼ SECURITY

[Network ACLs New](#)

[Security Groups New](#)



The screenshot shows the AWS Services navigation bar. On the left, there's a sidebar with sections for 'Favorites' (marked with a star) and 'Recently visited' services like Console Home, VPC, CloudFormation, EC2, Billing, CloudWatch, and IAM. The main area is titled 'All services' and lists categories such as Compute (EC2, Lightsail, Lambda, Batch, Elastic Beanstalk, Serverless Application Repository, AWS Outposts, EC2 Image Builder, AWS App Runner), Customer Enablement (AWS IQ, Support, Managed Services, Activate for Startups), Blockchain (Amazon Managed Blockchain), and Satellite (Ground Station). A search bar at the top right says 'Search for services, features, marketplace products, and docs'.



The screenshot shows a summary of Amazon EC2 resources in the US East (N. Virginia) Region. It includes counts for Instances (running), Dedicated Hosts, Elastic IPs, Instances, Key pairs, Load balancers, Placement groups, Security groups, and Snapshots. Below this, a callout box provides information about using the AWS Launch Wizard for Microsoft SQL Server Always On availability groups.

Instances (running)	0	Dedicated Hosts	0	Elastic IPs	0
Instances	0	Key pairs	0	Load balancers	0
Placement groups	0	Security groups	2	Snapshots	0
Volumes	0				

Info: Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. [Learn more](#) X

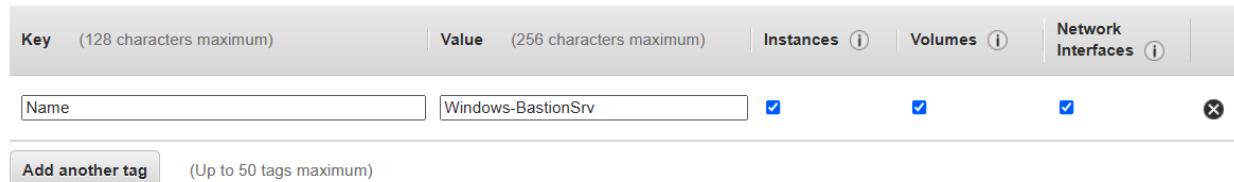
1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.



The screenshot shows the 'Add Tags' step of an AWS wizard. It has fields for 'Key' (128 characters maximum), 'Value' (256 characters maximum), and checkboxes for 'Instances', 'Volumes', and 'Network Interfaces'. Below this, a table shows a single tag entry: 'Name' (Windows-BastionSrv) with checkboxes for 'Instances', 'Volumes', and 'Network Interfaces'. At the bottom, there's a button to 'Add another tag'.

Key	(128 characters maximum)	Value	(256 characters maximum)	Instances (i)	Volumes (i)	Network Interfaces (i)
Name	Windows-BastionSrv	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	

Add another tag (Up to 50 tags maximum)

Instances (1) Info								
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
<input type="checkbox"/>	Windows BastionSrv	i-0a13367abaf85a4ab	Running	t2.micro	Initializing	No alarms	us-east-1a	ec2-3-95-20

Instances (1/1) Info								
<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm	Actions	Launch instances
<input checked="" type="checkbox"/>	Windows BastionSrv	i-0a13367abaf85a4ab	Running	t2.micro	2/2 checks passed	No	Connect View details Manage instance state Instance settings Networking Security Image and templates Modify IAM role Change security groups Get Windows password Modify IAM role	Public IPv4 ec2-3-95-20

Instance: i-0a13367abaf85a4ab (Windows BastionSrv)

Get Windows password [Info](#)

Retrieve and decrypt the initial Windows administrator password for this instance.

To decrypt the password, you will need your key pair for this instance.



Key pair associated with this instance

USEC2Keys

Browse to your key pair:

[Browse](#)

USEC2Keys.pem

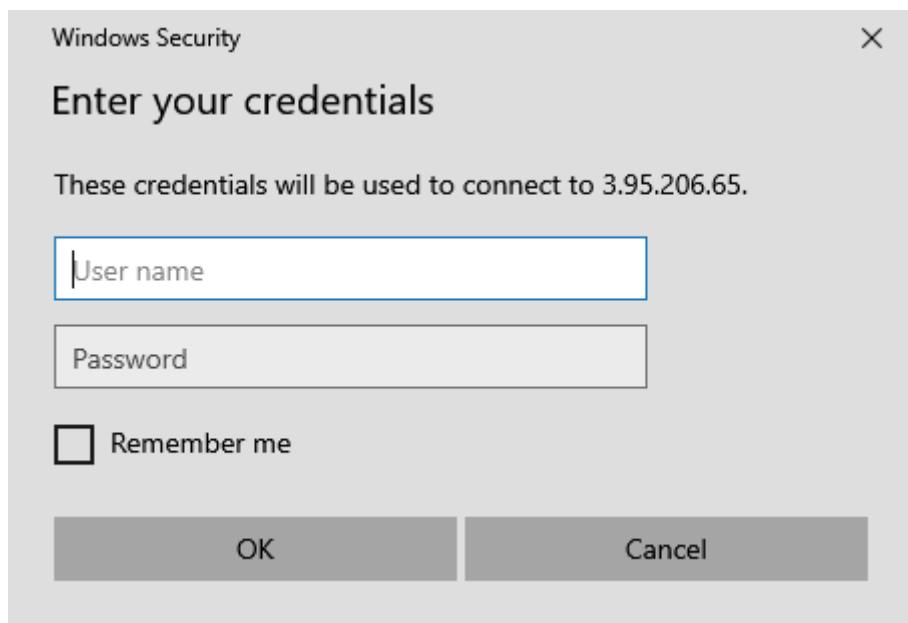
1.7KB

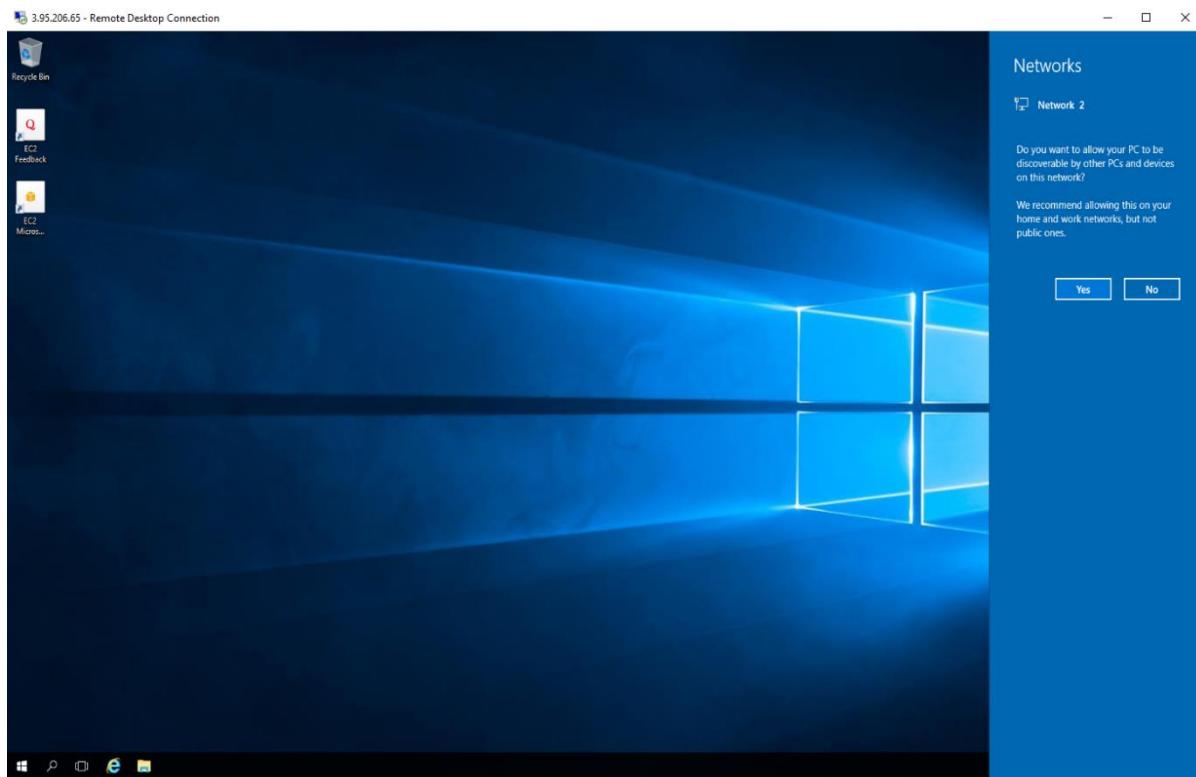
Or copy and paste the contents of the key pair below:

```
-----BEGIN RSA PRIVATE KEY-----
MIIEdwIBAAKCAQEAxjSl325OMy3IvqlY9oNDcEN2Z8I2QGdVFd9uCBFb5JGBzXt9
sjR/+a4sg7enUhArxsSuXOjLXxq+3Y6exD6BTJ8/wjfV57wKHaQJR7ji1uzRmx+6
jGSeXMtHHInzV83zqPqvMLOs9PVojTRwZ118BTTdQWYjp1IP08hRp1WxVEEU5gN8
JuH7544af7Bw/diyAurwFhq6V6iQ5MiUqXoBsc6DIX6g+jcq/e9n4Q3Re4VgjbFT
5fKyyeucCbualpqdo04l/t3rSLHUqlMixwF33El+lr4hFQ6BBhHlfe1AdXxqCozX
uxAQroZXo30t5aci7eo9JMnlAV5Qg7m97i0kkwlDAQABAoIBADsETieYT2cZyN5M
mnq8VwZECCsw/upqWkFrB95LHOuQD/BZRvlbA8gafpKxypZ6zi4fPjPX9UZaNI7O
```

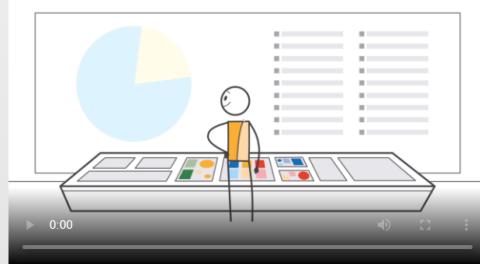
[Cancel](#)

Decrypt Password





Amazon Elastic Container Service (ECS)



Amazon ECS makes it easy to deploy, manage, and scale Docker containers running applications, services, and batch processes. Amazon ECS places containers across your cluster based on your resource needs and is integrated with familiar features like Elastic Load Balancing, EC2 security groups, EBS volumes and IAM roles.

[Get started](#)

[Learn more about Amazon ECS](#)

Select launch type compatibility

Select which launch type you want your task definition to be compatible with based on where you want to launch your task.

FARGATE



Price based on task size

Requires network mode awsvpc

AWS-managed infrastructure, no Amazon EC2 instances to manage

EC2



Price based on resource usage

Multiple network modes available

Self-managed infrastructure using Amazon EC2 instances

EXTERNAL



Price based on instance-hours and additional charges for other AWS services used

Self-managed on-premise infrastructure with ECS Anywhere

Add container

▼ Standard

Container name*

nginx



Image*

nginx



Configure security groups

A security group is a set of firewall rules that control the traffic for your task. On this page, you can add rules to allow specific traffic to reach your task, or you can choose to use an existing security group. [Learn more.](#)

Assigned security groups Create new security group
 Select existing security group

Security group name*

fargat-5692



Description

Tue Jul 13 2021 15:06:30 GMT+0530 (India Standard Time)



Inbound rules for security group

Type	Protocol	Port range	Source	
HTTP	TCP	80	Anywhere	
Add rule				

Cluster : MyCluster

Get a detailed view of the resources on your cluster.

Cluster ARN arn:aws:ecs:us-east-1:451147979072:cluster/MyCluster

Status ACTIVE

Registered container instances 0

Pending tasks count 0 Fargate, 0 EC2, 0 External

Running tasks count 1 Fargate, 0 EC2, 0 External

Active service count 0 Fargate, 0 EC2, 0 External

Draining service count 0 Fargate, 0 EC2, 0 External

Services **Tasks** **ECS Instances** **Metrics** **Scheduled Tasks** **Tags** **Capacity Providers**

Run new Task **Stop** **Stop All** **Actions** Last updated on July 13, 2021 3:14:20 PM (0m ago)

Desired task status: **Running** Stopped

<input type="checkbox"/>	Task	Task definition ...	Container insta...	Last status	Desired status ...	Started at	Started By	Group	Launch type	Platform versio...
<input type="checkbox"/>	84b71696dc004d...	fargate-task:1	--	RUNNING	RUNNING	2021-07-13 15:1...		family:fargate-task	FARGATE	1.4.0

Welcome to nginx!

Not secure | 18.207.125.89

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org. Commercial support is available at nginx.com.

Thank you for using nginx.

Chapter 8: AWS Database Services

Primary Key	Customer-ID	First Name	Last Name	Flat/House	Street	Town
	Cust001	Penny	Smith	11	Hoxton Grove	Richmond
	Cust002	Mark	Edwards	18	Cavendish Ave	Harrow
	Cust003	Luke	Skywalker	33	Hazelwood Ave	Morden
	Cust004	Jean Luke	Picard	22	Delta Drive	Knightsbridge

Primary Key

Customer-ID	Order-ID	Order Date	Order Amount
Cust002	Omega001	12 April 2019	\$200.75
Cust002	Omega002	15 June 2019	\$250.99
Cust002	Omega003	17 August 2019	\$330.99

DB instance class

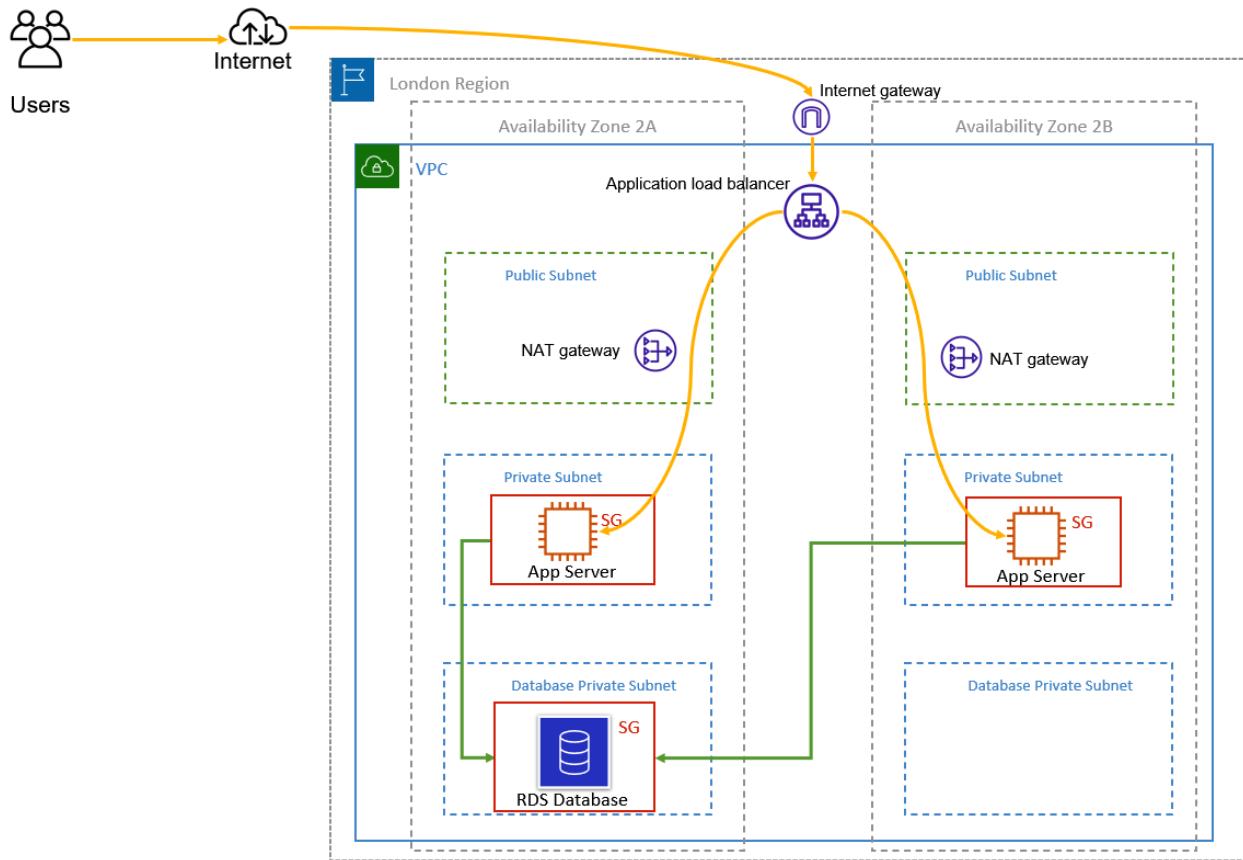
DB instance class [Info](#)

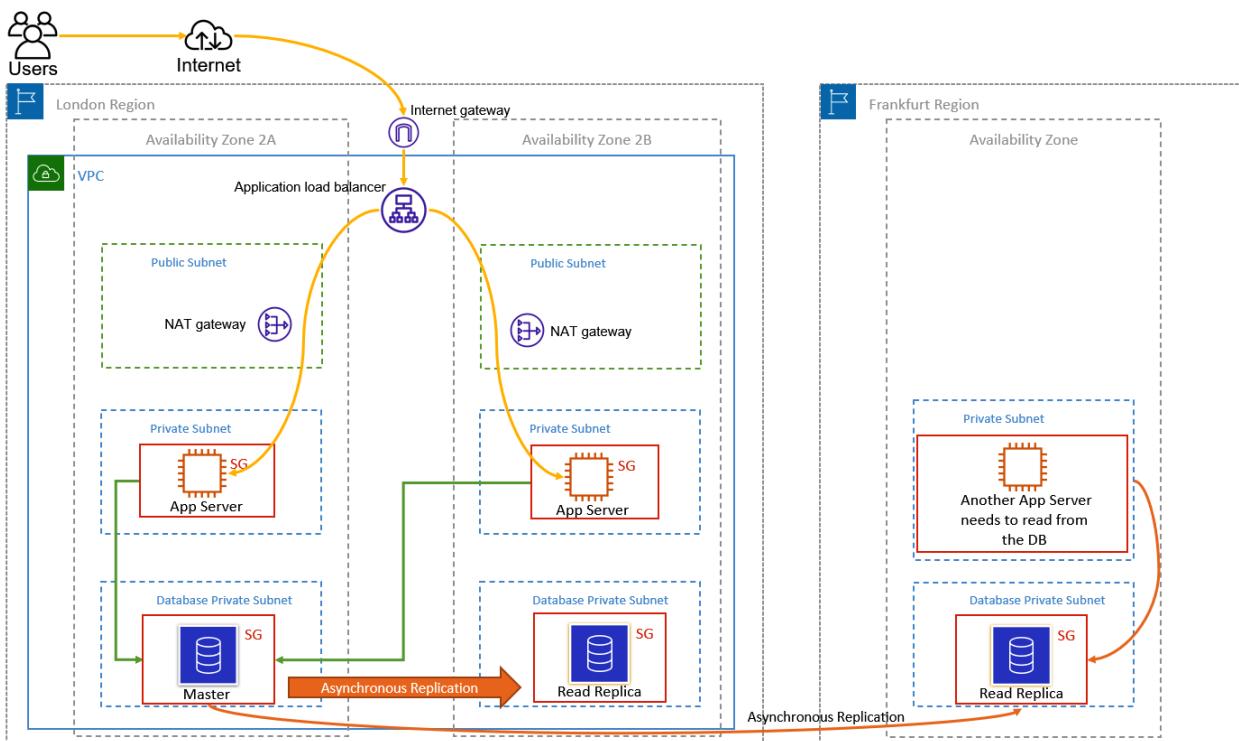
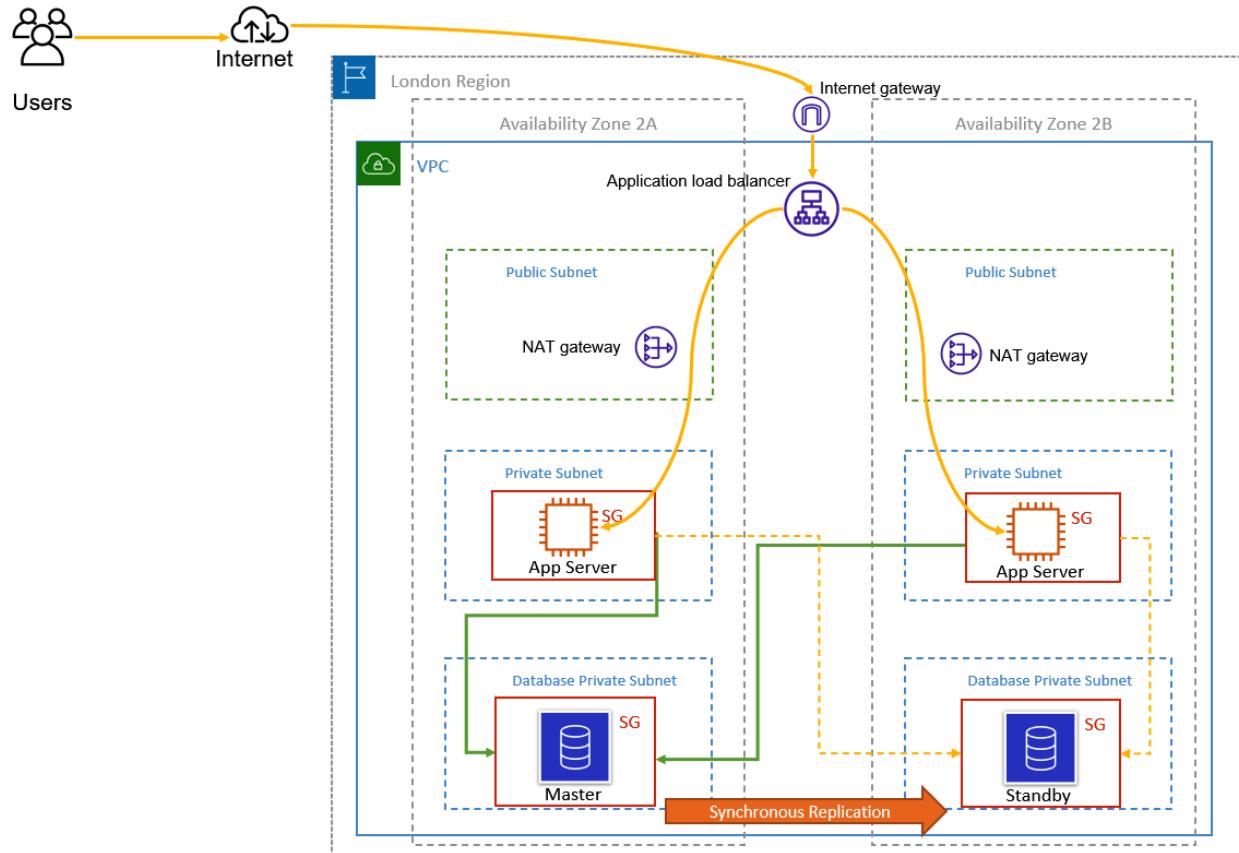
Choose a DB instance class that meets your processing power and memory requirements. The DB instance class options below are limited to those supported by the engine you selected above.

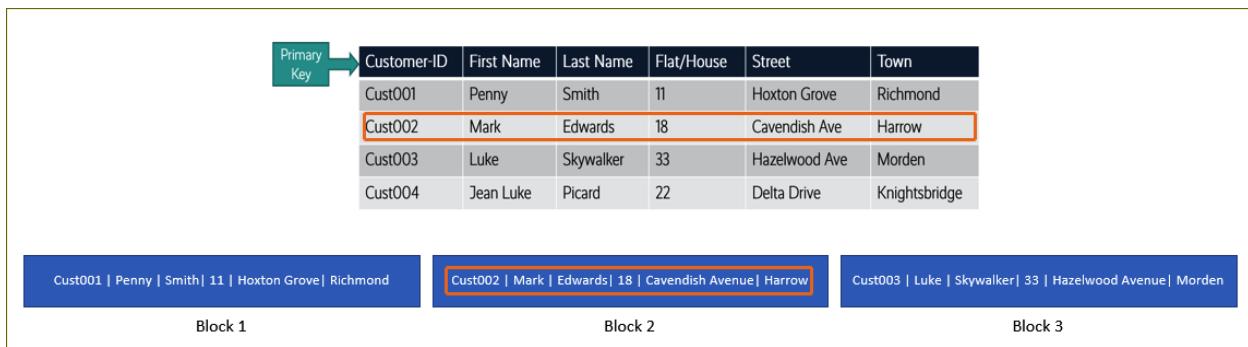
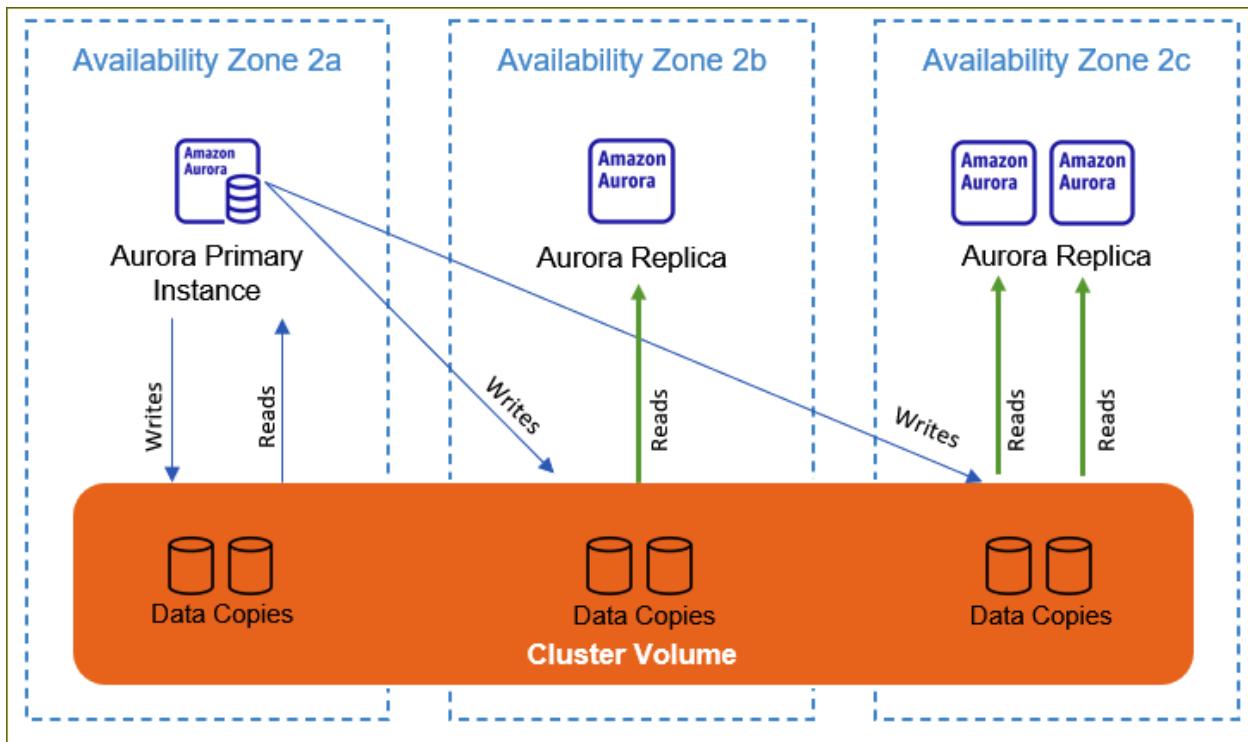
- Standard classes (includes m classes)
- Memory optimized classes (includes r and x classes)
- Burstable classes (includes t classes)

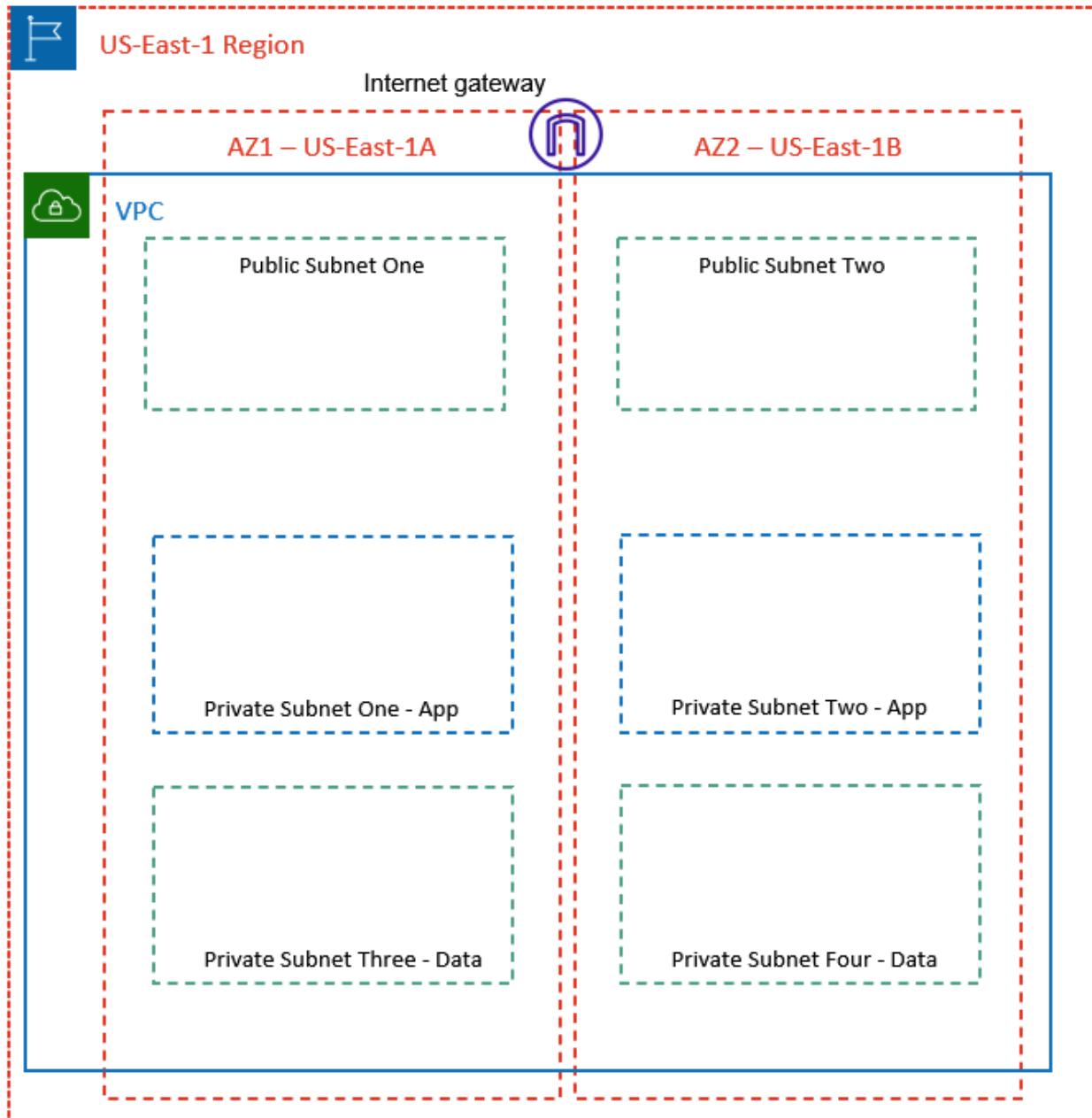
db.r6g.large
2 vCPUs 16 GiB RAM Network: 4,750 Mbps

- Include previous generation classes









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

No tags associated with the resource.

You can add 50 more tags.

Subnets (12) Info							
<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available
<input type="checkbox"/>	Public Subnet Two	subnet-0c076296ce7e9c3ae	Available	vpc-06de8d92837535119 Pr...	10.0.2.0/24	-	251
<input type="checkbox"/>	Public Subnet One	subnet-0034c3ce989fab016	Available	vpc-06de8d92837535119 Pr...	10.0.0.0/24	-	251
<input type="checkbox"/>	Private Subnet Two - App	subnet-09d271d28241ce4d6	Available	vpc-06de8d92837535119 Pr...	10.0.4.0/24	-	251
<input type="checkbox"/>	Private Subnet Three - Data	subnet-0b8982e1596b9f0e3	Available	vpc-06de8d92837535119 Pr...	10.0.5.0/24	-	251
<input type="checkbox"/>	Private Subnet One - App	subnet-0d43a97f4519300f7	Available	vpc-06de8d92837535119 Pr...	10.0.3.0/24	-	251
<input type="checkbox"/>	Private Subnet Four - Data	subnet-0bcb73d4c74af47fa	Available	vpc-06de8d92837535119 Pr...	10.0.6.0/24	-	251

VPC

Choose a VPC identifier that corresponds to the subnets you want to use for your DB subnet group. You won't be able to choose a different VPC identifier after your subnet group has been created.

ProductionVPC (vpc-06de8d92837535119)

us-east-1a

- subnet-0034c3ce989fab016 (10.0.0.0/24)
- subnet-0b8982e1596b9f0e3 (10.0.5.0/24)
- subnet-0d43a97f4519300f7 (10.0.3.0/24)

us-east-1b

- subnet-0bcb73d4c74af47fa (10.0.6.0/24)
- subnet-09d271d28241ce4d6 (10.0.4.0/24)
- subnet-0c076296ce7e9c3ae (10.0.2.0/24)

Select subnets

subnet-0b8982e1596b9f0e3 (10.0.5.0/24) X

subnet-0bcb73d4c74af47fa (10.0.6.0/24) X

⌚ Successfully created ProductionVPC-DBSubnet. [View subnet group](#)

RDS > Subnet groups

Subnet groups (1)

[C](#) Edit Delete Create DB Subnet Group

Filter subnet group

Name	Description	Status	VPC
productionvpc-dbsubnet	DB Subnet Group to host RDS Database in Production VPC	Complete	vpc-06de8d92837535119

⌚ Successfully created database productiondb

RDS > Databases

Databases

Group resources [C](#) Modify Actions [Restore from S3](#) Create database

Filter databases

DB identifier	Role	Engine	Region & AZ	Size	Status	CPU
productiondb	Instance	MySQL Community	us-east-1a	db.t2.micro	Available	-

[Create table](#) [Delete table](#)

Filter by table name Choose a table ... Actions

Name
Recipes

Recipes

Recent alerts

No CloudWatch alarms have been triggered for this table.

Kinesis data stream details

Use Amazon Kinesis Data Streams for DynamoDB to capture item-level changes in your table as a Kinesis data stream. [Learn more](#)

Stream enabled: No
Stream name: -

[Manage streaming to Kinesis](#)

DynamoDB stream details

Stream enabled: No
View type: -
Latest stream ARN: -

[Manage DynamoDB stream](#)

Table details

Table name	Recipes
Primary partition key	RecipeName (String)

Edit item

Tree ▾

- ▼ Item {2}
 - ⊕ ▼ Ingredients StringSet [1]
 - ⊕ 0 : **Lettuce\nTomato\nCucumber**
 - ⊕ RecipeName String : Vegan Peri Peri Burger

Recipes Close

Overview Items Metrics Alarms Capacity Indexes Global Tables Backups Contributor Insights

Create item Actions ▾

Scan: [Table] Recipes: RecipeName ^

Scan ▾ [Table] Recipes: RecipeName ^
⊕ Add filter Start search

<input type="checkbox"/>	RecipeName	Ingredients ⓘ
<input type="checkbox"/>	Vegan Peri Peri Burger	{ "Lettuce Tomato Cucumber" }
<input checked="" type="checkbox"/>	Vegan Saussage Rolls	

Chapter 9: High Availability and Elasticity on AWS

EC2 > Instances > i-0f576d782a236da29 > Change instance type

Change instance type Info

You can change the instance type only if the current instance type and the instance type that you want are compatible.

Instance ID
 [i-0f576d782a236da29 \(My First Server\)](#)

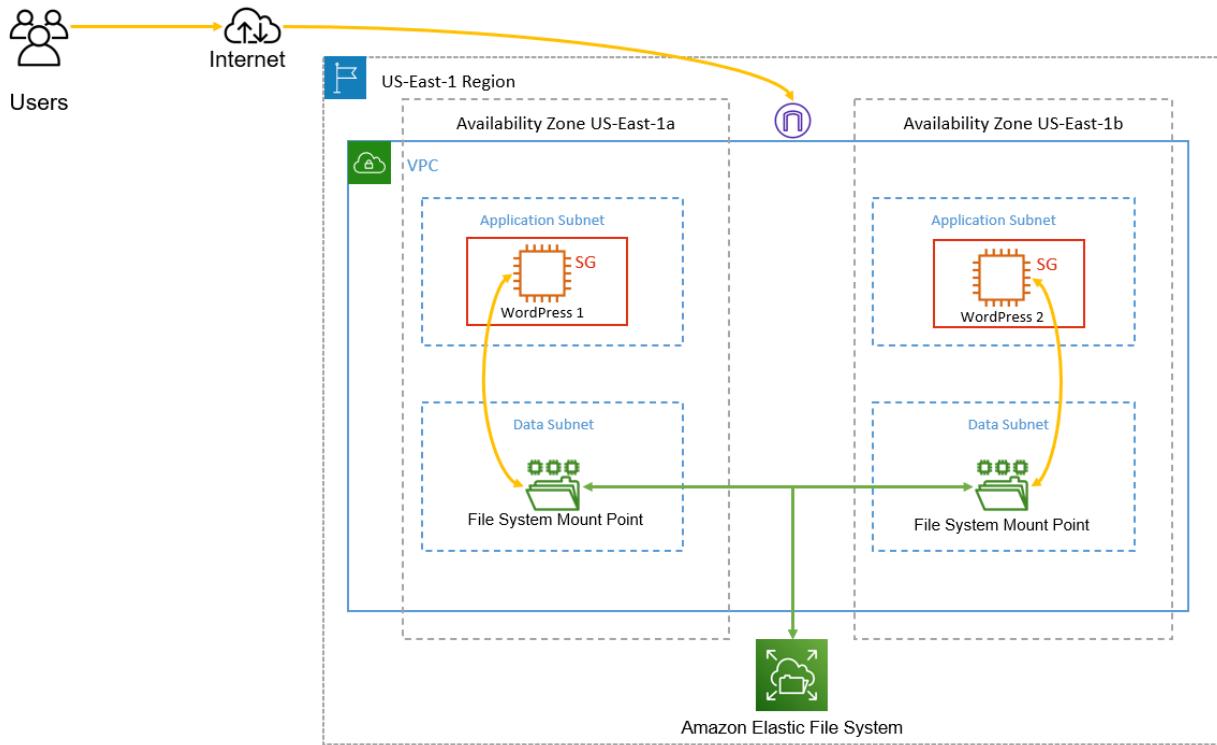
Current instance type
t2.small

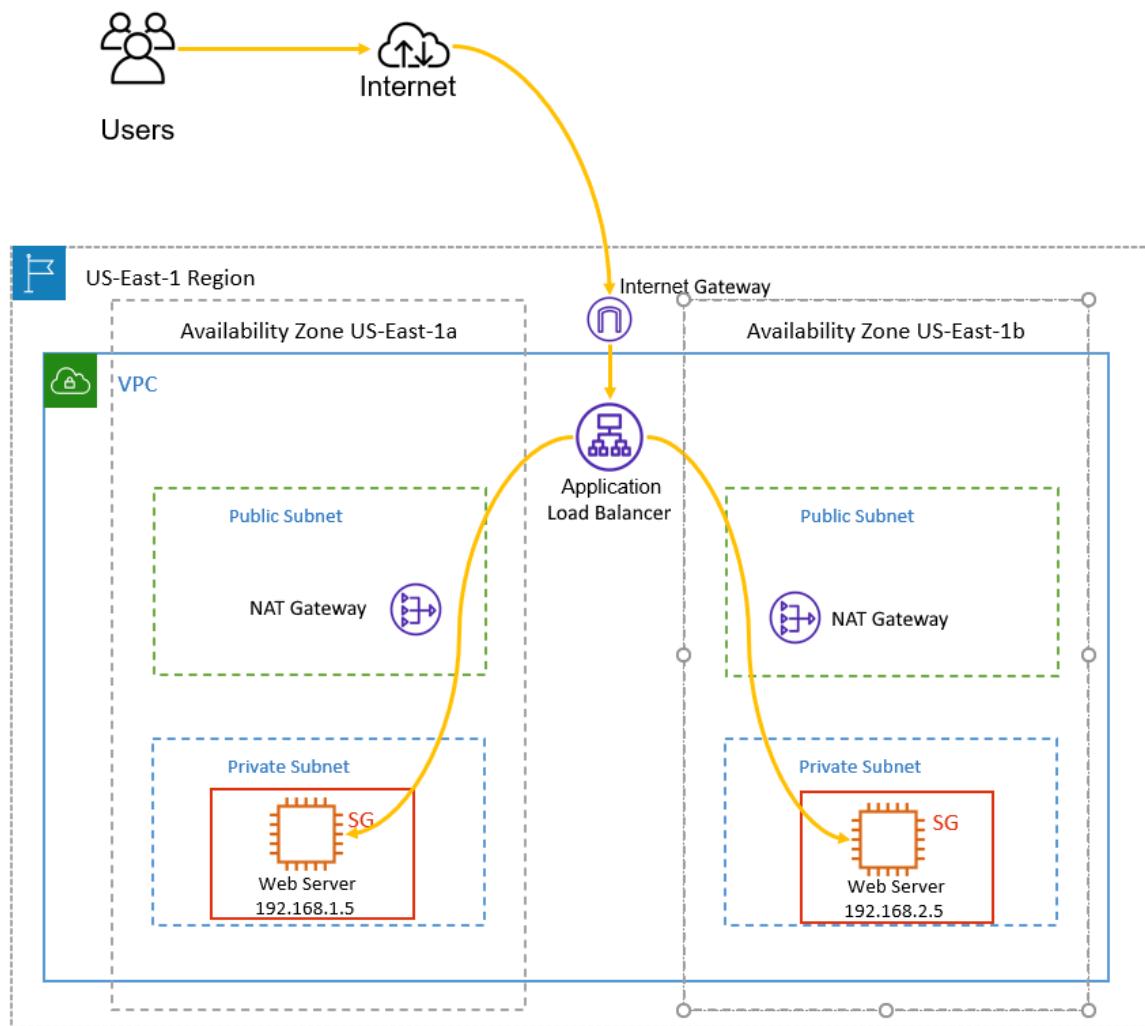
Instance type
 ▾

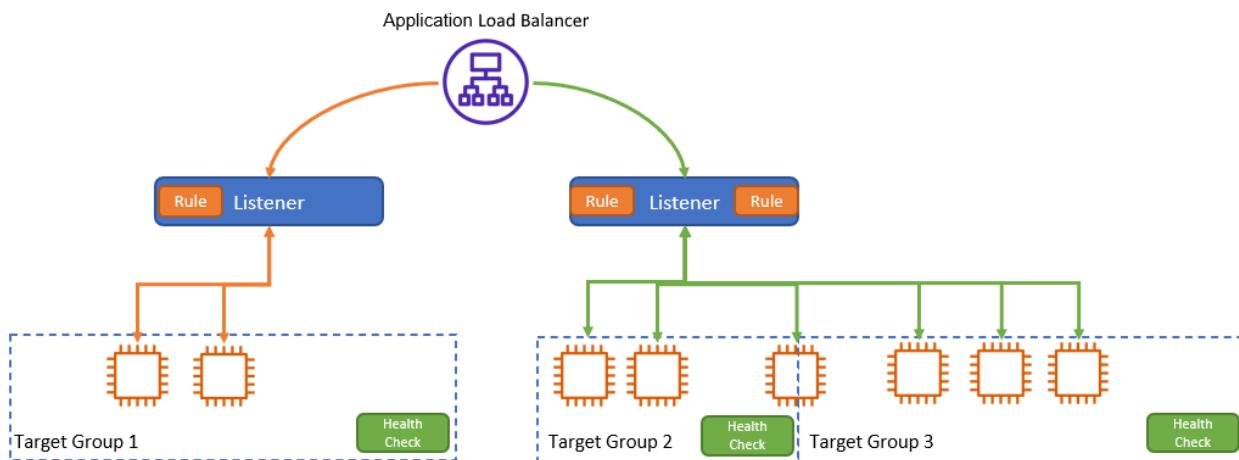
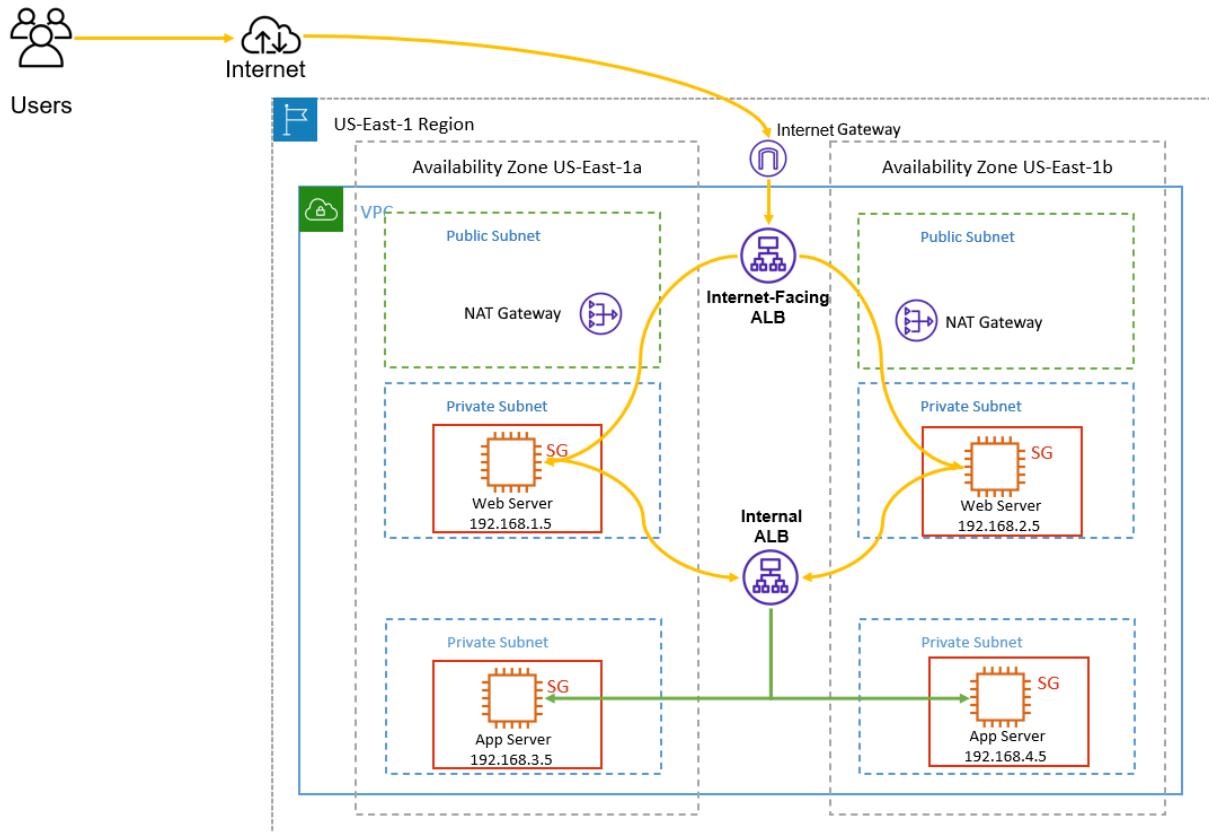
EBS-optimized
EBS-optimized is not supported for this instance type

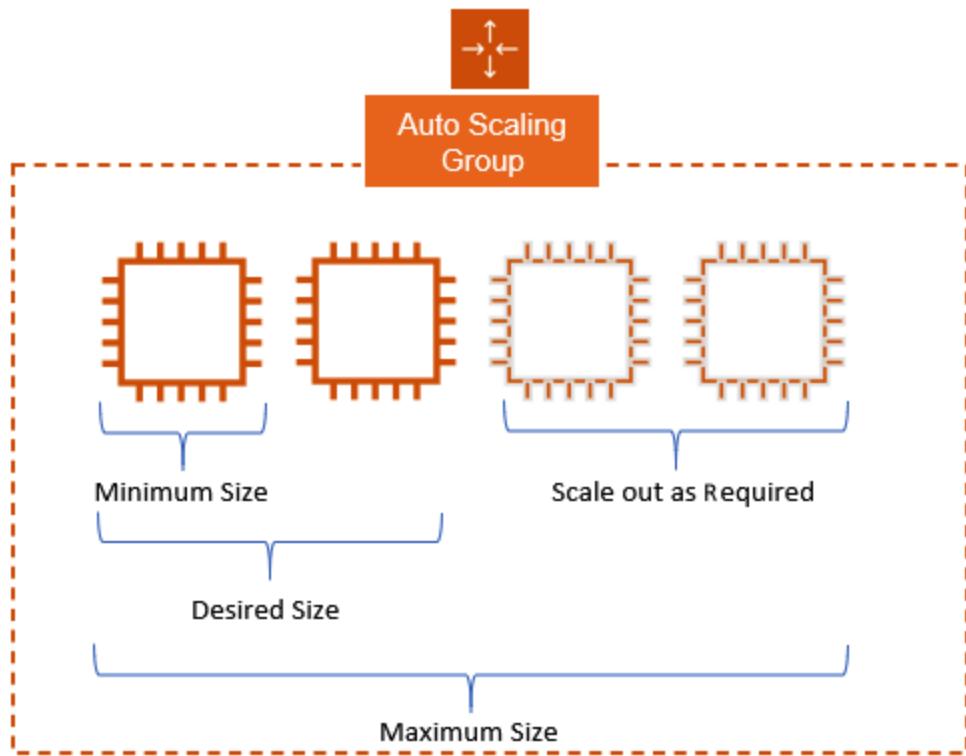
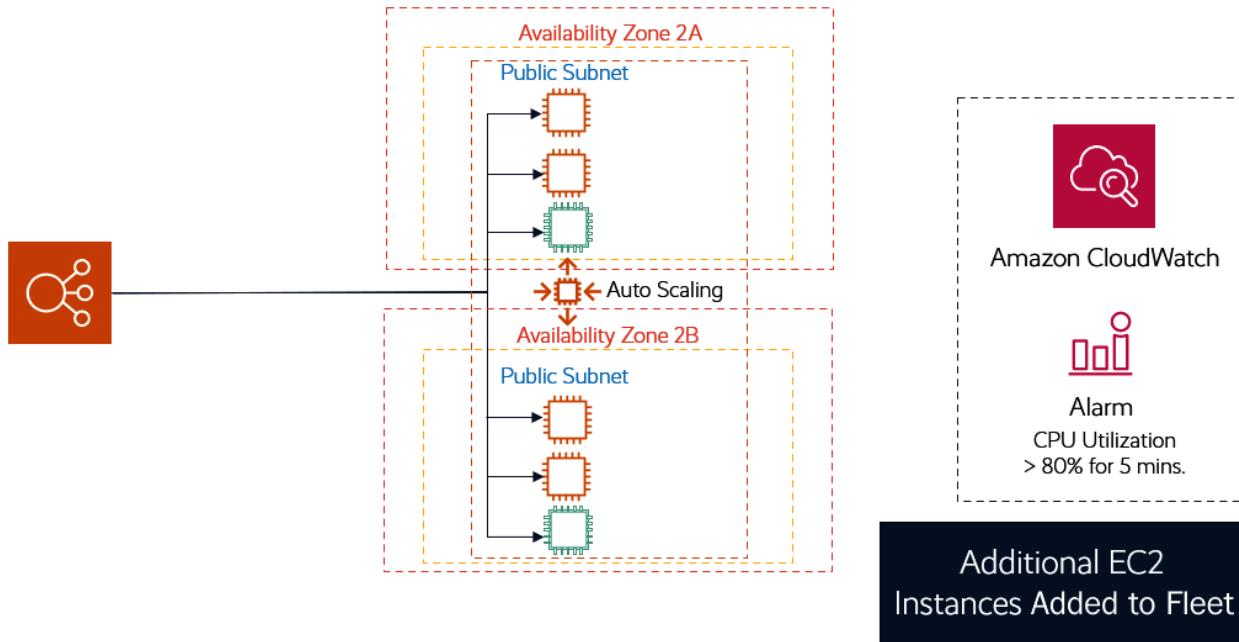
⚠️ Changing Instance type will reset your CPU options to default.

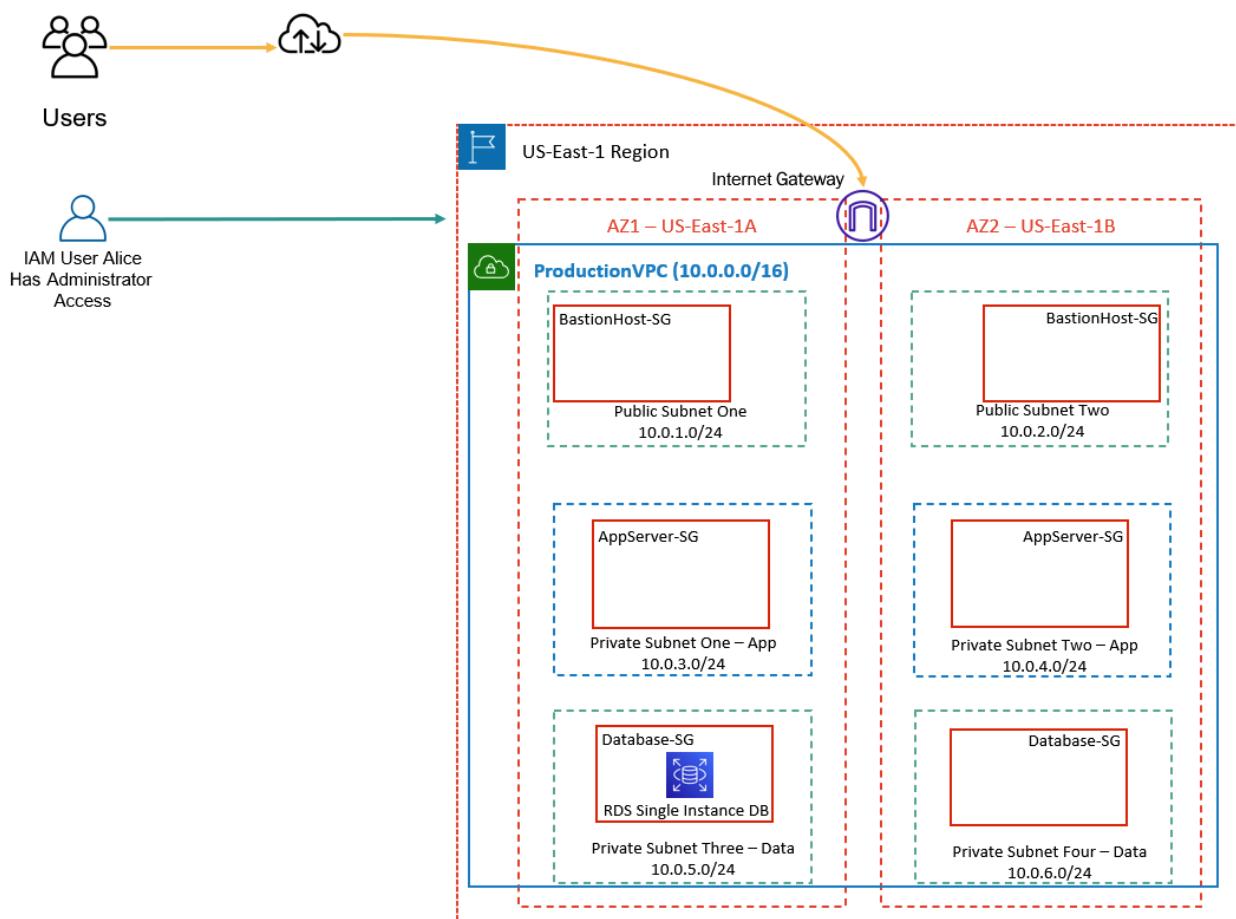
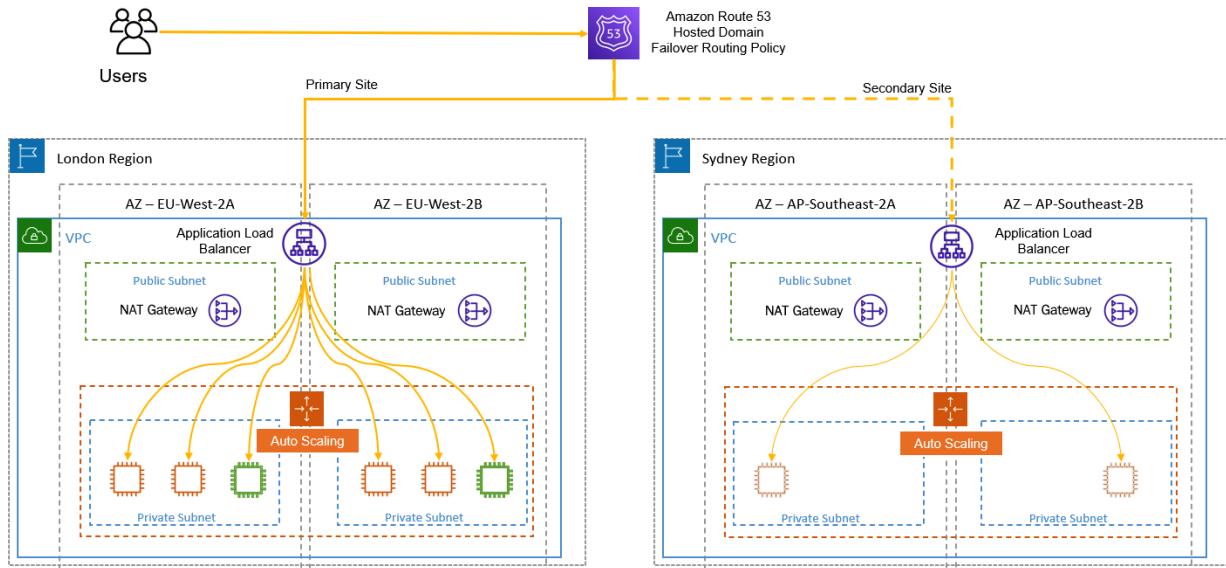
Cancel **Apply**











Name	Date modified	Type	Size
css	25-06-2021 03:50	File folder	
fonts	25-06-2021 03:50	File folder	
images	25-06-2021 04:43	File folder	
js	25-06-2021 03:50	File folder	
action	16-10-2020 17:27	PHP File	1 KB
db	16-10-2020 17:39	PHP File	3 KB
health	24-06-2021 14:05	Chrome HTML Do...	1 KB
index	25-06-2021 04:40	Chrome HTML Do...	6 KB
script	16-10-2020 17:28	JavaScript File	2 KB

db - Notepad

```
<?php
define('DB_SERVER', 'Enter the RDS Database Endpoint DNS name here');

define('DB_USERNAME', 'Enter your RDS Database Username, usually its Admin');

define('DB_PASSWORD', 'Enter your RDS Database Password');

define('DB_DATABASE', 'Enter your RDS Database Name');
```

veganrecipes

Summary				Modify	Actions ▾
DB identifier veganrecipes	CPU <div style="width: 6.44%;">6.44%</div>	Status Backing-up	Class db.t2.micro		
Role Instance	Current activity <div style="width: 0%;">0 Connections</div>	Engine MySQL Community	Region & AZ eu-west-2a		
Connectivity & security Monitoring Logs & events Configuration Maintenance & backups Tags					
Connectivity & security					
Endpoint & port		Networking	Security		
Endpoint veganrecipes.ckgbtd7jh7ra.eu-west-2.rds.amazonaws.com		Availability Zone eu-west-2a	VPC security groups default (sg-9675edeb) (active)		

vegan-good-deed

S3 console

Objects Properties Permissions Metrics Management Access Points

Objects (0)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

[Create folder](#) [Upload](#)

Find objects by prefix

Name	Type	Last modified	Size	Storage class
No objects				

You don't have any objects in this bucket.

s3.console.aws.amazon.com/s3/upload/vegan-good-deed?region=us-east-1

aws Services Search for services, features, marketplace products

Amazon S3 > vegan-good-deed > Upload

Upload

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose Add files and folders (0) All files and folders in this table will be uploaded.

Find by name

Name	Folder	Type	Size
css		File folder	
fonts		File folder	
images		File folder	
js		File folder	
action		PHP File	1 kB
db		PHP File	3 kB
health		Chrome HTML Do...	1 kB
index		Chrome HTML Do...	5 kB
script		JavaScript File	2 kB

9 items 9 items selected

Identity and Access Management (IAM)

- Dashboard
- Access management
 - User groups
 - Users
 - Roles**
 - Policies
 - Identity providers
 - Account settings
- Access reports
 - Access analyzer
 - Archive rules
 - Analyzers
 - Settings
- Credential report

Roles

What are IAM roles?

IAM roles are a secure way to grant permissions to entities that you trust. Examples of entities include the following:

- IAM user in another account
- Application code running on an EC2 instance that needs to perform actions on AWS resources
- An AWS service that needs to act on resources in your account to provide its features
- Users from a corporate directory who use identity federation with SAML

IAM roles issue keys that are valid for short durations, making them a more secure way to grant access.

Additional resources:

- [IAM Roles FAQ](#)
- [IAM Roles Documentation](#)
- [Tutorial: Setting Up Cross Account Access](#)
- [Common Scenarios for Roles](#)

Create role **Delete role**

Create role

1 **2** 3 4

▼ Attach permissions policies

Choose one or more policies to attach to your new role.

Create policy

Filter policies		Showing 8 results
	Policy name	Used as
<input type="checkbox"/>	▶ AmazonDMSRedshiftS3Role	None
<input type="checkbox"/>	▶ AmazonS3FullAccess	Permissions policy (1)
<input type="checkbox"/>	▶ AmazonS3OutpostsFullAccess	None
<input type="checkbox"/>	▶ AmazonS3OutpostsReadOnlyAccess	None
<input checked="" type="checkbox"/>	▶ AmazonS3ReadOnlyAccess	Permissions policy (1)
<input type="checkbox"/>	▶ IVSRecordToS3	None
<input type="checkbox"/>	▶ QuickSightAccessForS3StorageManagementAnalyticsReadOnly	None
<input type="checkbox"/>	▶ S3StorageLensServiceRolePolicy	None

▶ Set permissions boundary

* Required **Cancel** **Previous** **Next: Tags**

Health checks

The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

Health check protocol

HTTP ▾

Health check path

Use the default path of "/" to ping the root, or specify a custom path if preferred.

/health.html

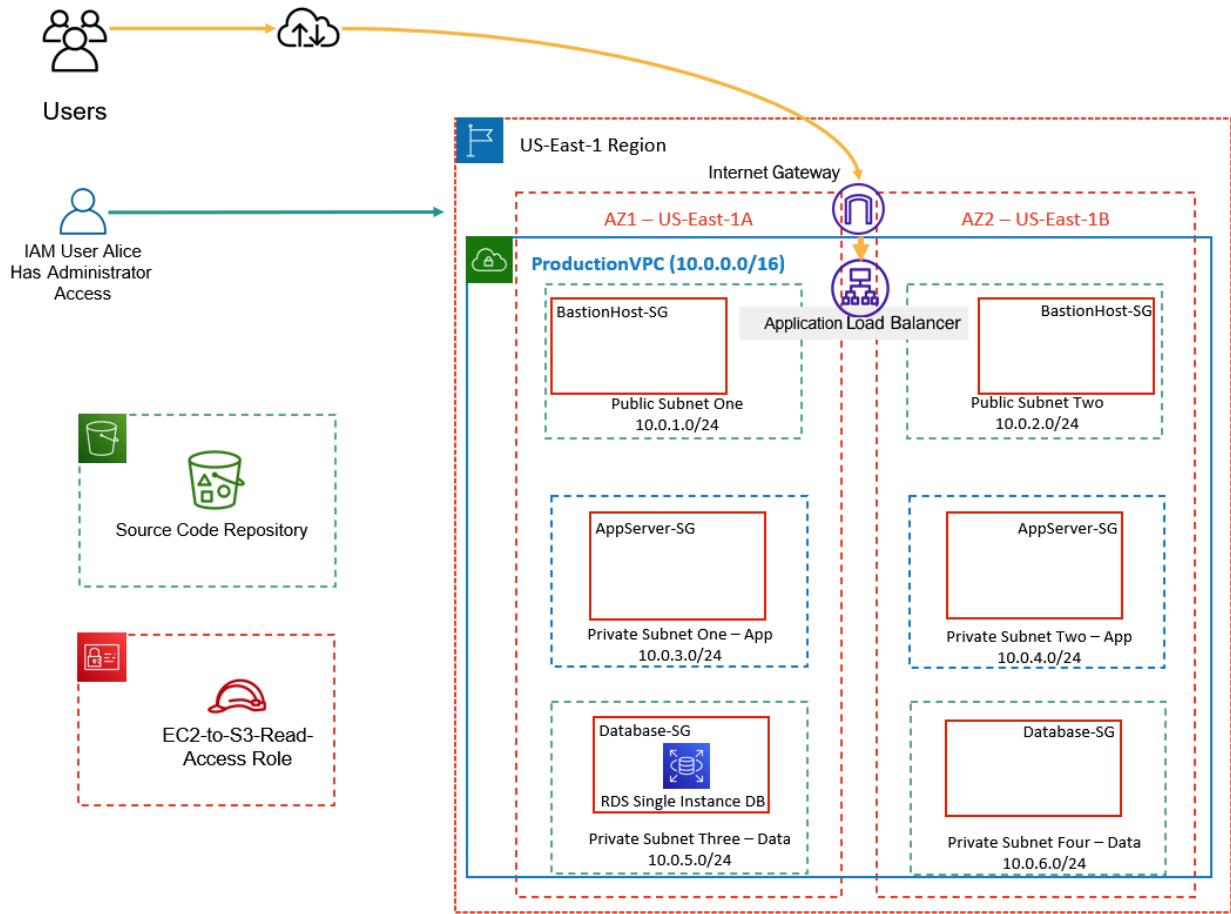
Up to 1024 characters allowed.

► Advanced health check settings

Select load balancer type

Elastic Load Balancing supports four types of load balancers: Application Load Balancers, Network Load Balancers, Gateway Load Balancers, and Classic Load Balancers. Choose the load balancer [Learn more about which load balancer is right for you](#)

Application Load Balancer	Network Load Balancer	Gateway Load Balancer
 Create Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers. Learn more >	 Create Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your application. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies. Learn more >	 Create Choose a Gateway Load Balancer when you need to deploy and manage a fleet of third-party virtual appliances that support GENEVE. These appliances enable you to improve security, compliance, and policy controls. Learn more >



VPC > NAT gateways > nat-002618b964c659560

nat-002618b964c659560 / Production-NAT

Details		Info	
NAT gateway ID nat-002618b964c659560	Connectivity type Public	State Available	State message -
Elastic IP address 52.207.113.230	Private IP address 10.0.1.231	Network interface ID eni-024340b8407b9e85f	VPC vpc-06de8d92837535119 / ProductionVPC
Subnet subnet-0b07f9d49863f3883 / Public Subnet One	Created 2021/06/25 13:29 GMT+5:30	Deleted -	



Amazon Linux 2 AMI (HVM), SSD Volume Type - [ami-0ab4d1e9cf9a1215a \(64-bit x86\)](#) / [ami-0d296d66f22f256c2 \(64-bit Arm\)](#)

Amazon Linux
Free tier eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, through extras. This AMI is the successor of the Amazon Linux AMI that is approaching end of life on December 31, 2020 and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

Launch configurations (1) Info						
	Name	AMI ID	Instance type	Spot price	Creation time	
<input type="checkbox"/>	Production-LC	ami-0ab4d1e9cf9...	t2.micro	-	Fri Jun 25 2021 15:53:26 GMT+0530 (India Standard Time)	Actions Copy to launch template Create launch configuration

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1
Choose launch template or configuration

Step 2
Configure settings

Step 3 (optional)
Configure advanced options

Step 4 (optional)
Configure group size and scaling policies

Step 5 (optional)
Add notifications

Step 6 (optional)
Add tags

Step 7
Review

Configure settings [Info](#)

Configure the settings below. Depending on whether you chose a launch template, these settings may include options to help you make optimal use of EC2 resources.

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 [Edit](#)

vpc-06de8d92837535119 (ProductionVPC)
10.0.0.0/16

Create a VPC [Edit](#)

Subnets [Edit](#)

Select subnets [Edit](#)

us-east-1a | subnet-0d43a97f4519300f7 (Private Subnet One - App)
10.0.3.0/24

us-east-1b | subnet-09d271d28241ce4d6 (Private Subnet Two - App)
10.0.4.0/24

Create a subnet [Edit](#)

[Cancel](#) [Previous](#) [Skip to review](#) **Next**

EC2 > Auto Scaling groups

Auto Scaling groups (1/1)										<input type="button" value="Create an Auto Scaling group"/>
<input type="text"/> Search your Auto Scaling groups										<input type="button" value="C"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>
	Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Availability Zones		
<input checked="" type="checkbox"/>	Production-ASG	Production-LC	2	-	2	2	2	us-east-1a, us-east-1b		

Details Activity Automatic scaling Instance management Monitoring Instance refresh

Group details

Desired capacity 2	Auto Scaling group name Production-ASG
Minimum capacity 2	Date created Fri Jun 25 2021 16:36:36 GMT+0530 (India Standard Time)
Maximum capacity 2	Amazon Resource Name (ARN) arn:aws:autoscaling:us-east-1:451147979072:autoScalingGroup:82f5ed31-43f3-47ef-a5ba-591ec6c29500:autoScalingGroupName/Production-ASG

EC2 > Target groups > Production-TG

Production-TG

arn:aws:elasticloadbalancing:us-east-1:451147979072:targetgroup/Production-TG/0fe5db449d6664c3

Details

Target type Instance	Protocol : Port HTTP: 80	Protocol version HTTP1	VPC vpc-06de8d92837535119 <input type="button" value=""/>
Load balancer Production-ALB <input type="button" value=""/>			
Total targets 2	Healthy <input checked="" type="radio"/> 2	Unhealthy <input type="radio"/> 0	Unused <input type="radio"/> 0
	Initial <input type="radio"/> 0	Draining <input type="radio"/> 0	

Targets Monitoring Health checks Attributes Tags

Registered targets (2)

<input type="text"/> Filter resources by property or value	<input type="button" value="C"/> <input type="button" value="Deregister"/> <input type="button" value="Register targets"/>				
Instance ID	Name	Port	Zone	Health status	Health status details
i-00e4c73bf26aa9089	Production-Servers	80	us-east-1a	<input checked="" type="radio"/> healthy	
i-02aff0a893bfeef0b	Production-Servers	80	us-east-1b	<input checked="" type="radio"/> healthy	

Instances (2) Info

Filter instances

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	Production-Servers	i-02aff0a893bfeef0b	<input checked="" type="radio"/> Running <input type="radio"/> <input type="radio"/>	t2.micro	<input checked="" type="radio"/> 2/2 checks passed	No alarms <input type="button" value="+"/>	us-east-1b
<input type="checkbox"/>	Production-Servers	i-00e4c73bf26aa9089	<input checked="" type="radio"/> Running <input type="radio"/> <input type="radio"/>	t2.micro	<input checked="" type="radio"/> 2/2 checks passed	No alarms <input type="button" value="+"/>	us-east-1a

Create Load Balancer Actions ▾

Filter by tags and attributes or search by keyword

Name	DNS name	State	VPC ID	Availability Zones
Production-ALB	Production-ALB-1998282540.us-east-1.elb.amazonaws.com	Active	vpc-06de8d92837535119	us-east-1a, us-east-1b

Load balancer: Production-ALB

Description Listeners Monitoring Integrated services Tags

Basic Configuration

Name	Production-ALB
ARN	arn:aws:elasticloadbalancing:us-east-1:451147979072:loadbalancer/app/Production-ALB/4e6bae1279c9580c
DNS name	Production-ALB-1998282540.us-east-1.elb.amazonaws.com (A Record)
State	Active
Type	application
Scheme	internet-facing
IP address type	ipv4

Edit IP address type

Monthly Contest



"Good Deed Of The Month Contest!"

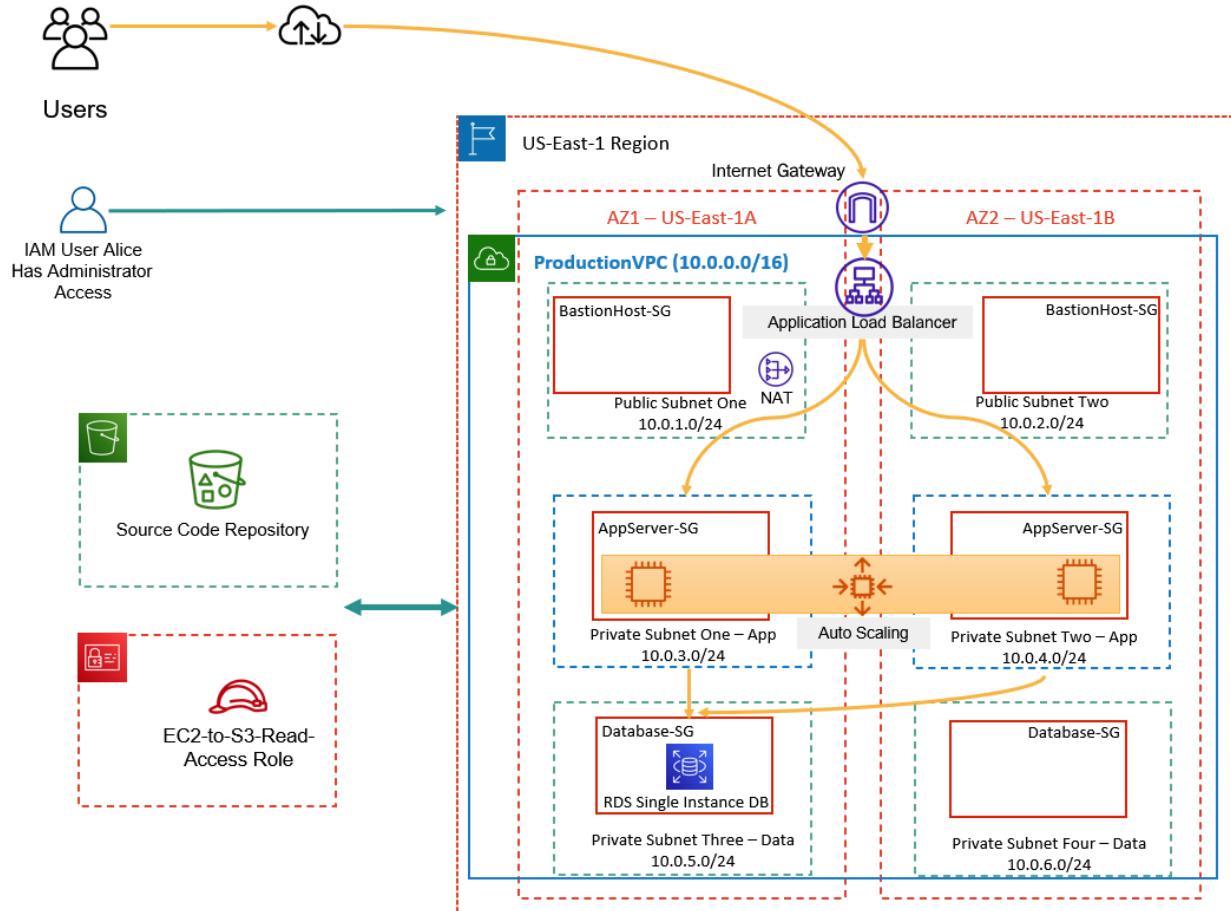
CONTEST ENDS IN

{ 653 Days | 12 Hours | 41 Minutes | 58 Seconds }

SUBMIT

"Five Winners will each receive a Vegan Studio hamper worth \$100"

Copyright © 2021 The Vegan Studio ☺



Instances (1/2) Info										
C Connect Instance state ▾ Actions ▾										
	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public		
<input checked="" type="checkbox"/>	Production-Servers	i-02aff0a893bfeef0b	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1b	-		
<input type="checkbox"/>	Production-Servers	i-00e4c73bf26aa9089	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1a	-		

Activity history (4)						
Filter activity history						
Status	Description	Cause		Start time	End time	
Successful	Launching a new EC2 instance: i-0cb11660eda954fa0	At 2021-06-27T05:39:20Z an instance was started in response to a difference between desired and actual capacity, increasing the capacity from 1 to 2.		2021 June 27, 11:09:23 AM +05:30	2021 June 27, 11:09:55 AM +05:30	
WaitingForELBConnectionDraining	Terminating EC2 instance: i-02aff0a893bfeef0b - Waiting For ELB Connection Draining.	At 2021-06-27T05:39:00Z an instance was taken out of service in response to an EC2 health check indicating it has been terminated or stopped.		2021 June 27, 11:09:00 AM +05:30	2021 June 27, 11:09:05 AM +05:30	

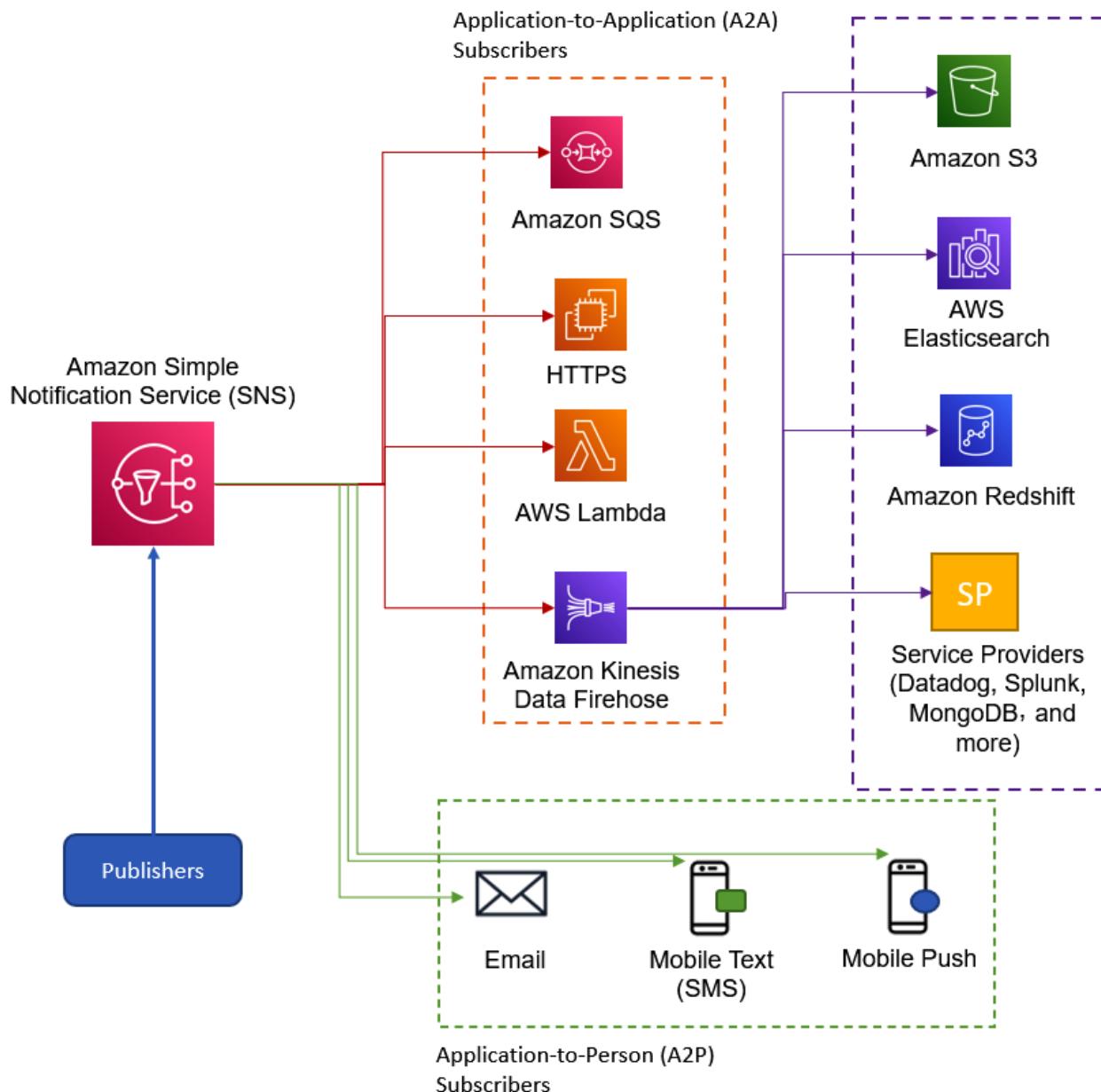
Network interfaces (1) [Info](#)

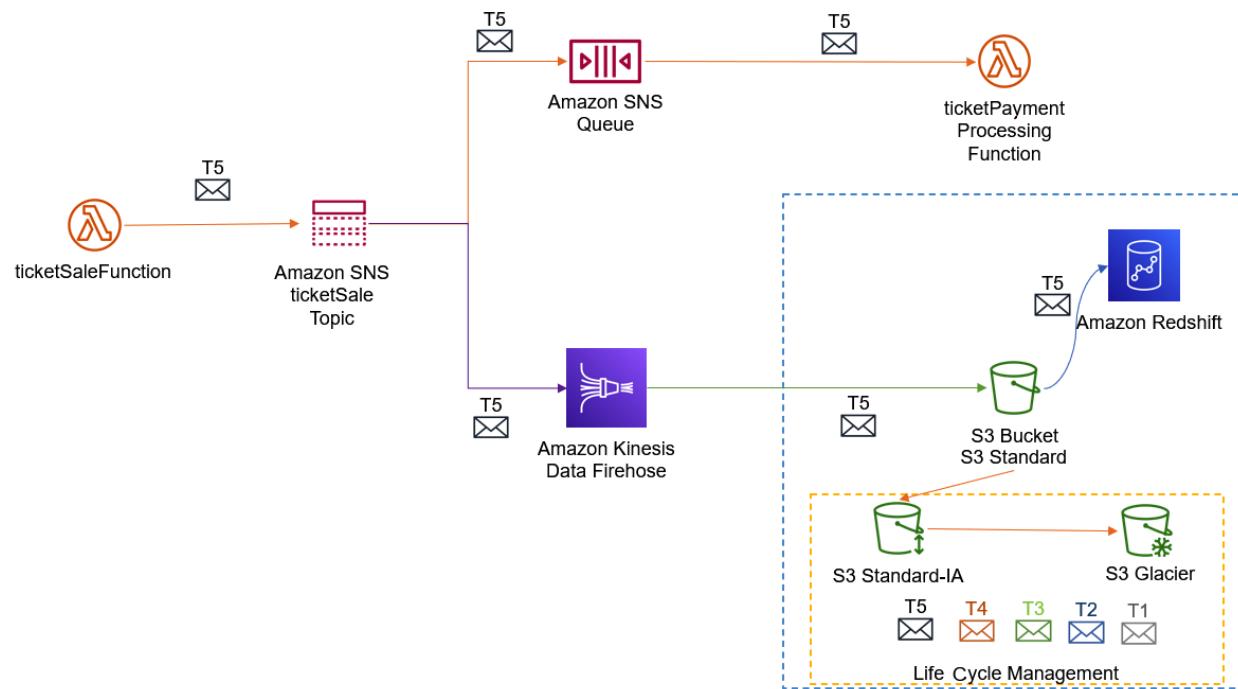
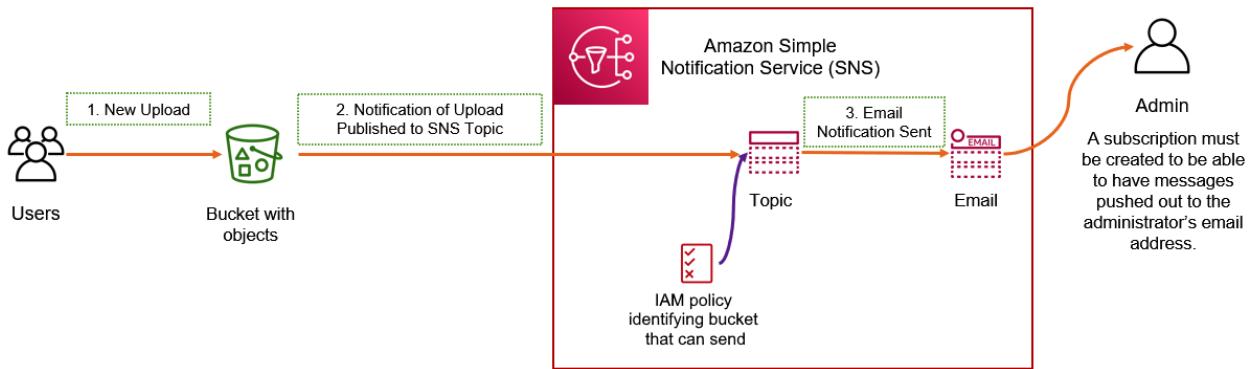
[Create network interface](#)

Actions ▾

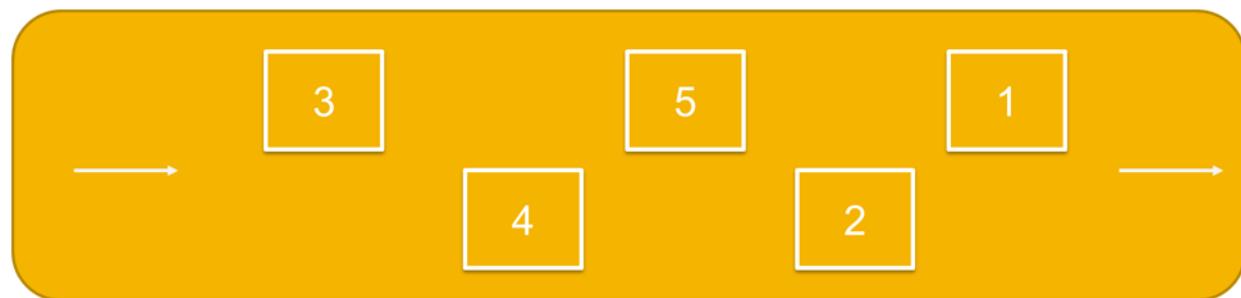
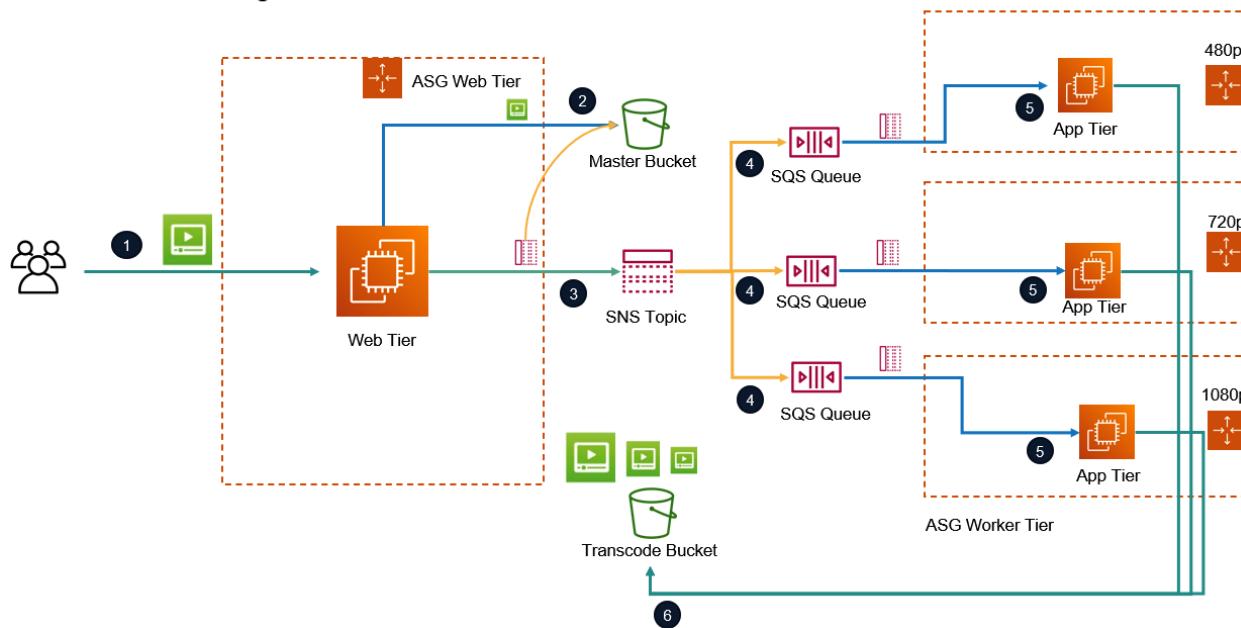
<input type="checkbox"/>	Name	Network interface ID	Subnet ID	VPC ID	Availability Zone	Security groups
<input type="checkbox"/>	-	eni-023a5d3c614c8308f	subnet-0b8982e1596b9f0e3	vpc-06de8d92837535119	us-east-1a	Database-SG

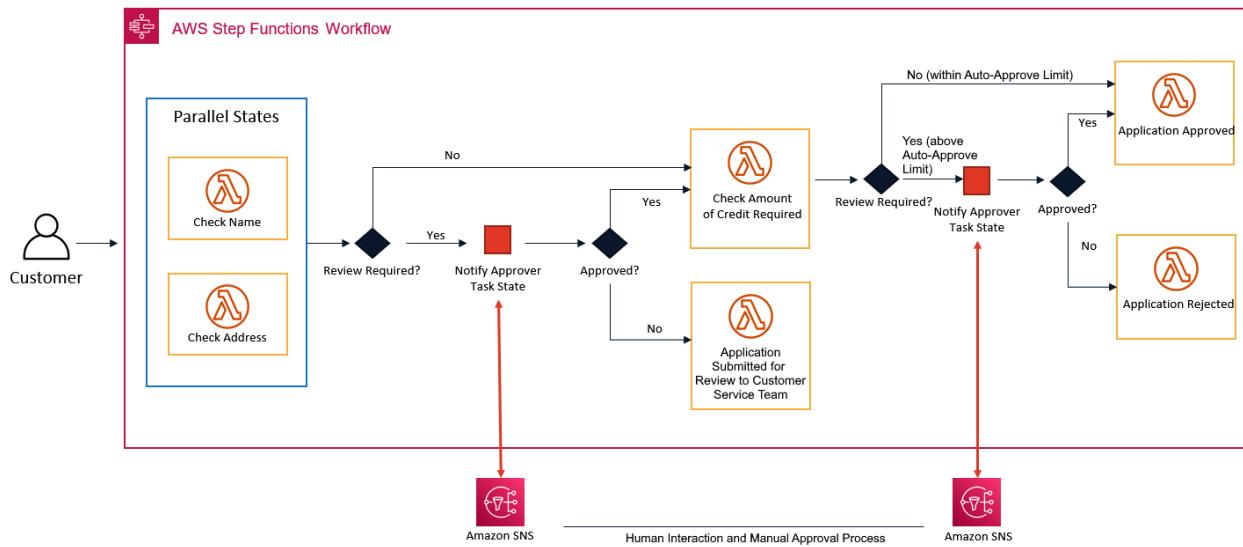
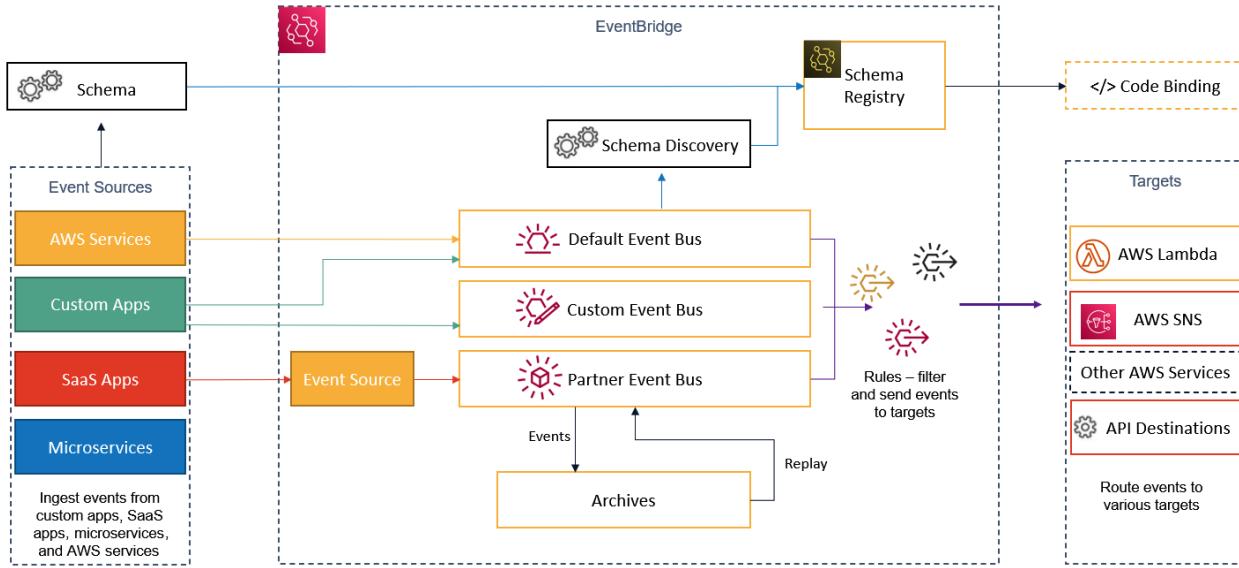
Chapter 10: Application Integration Services





Media Transcoding Use Case





Definition

Sample project code is read-only, but you can edit it after creation. State machines are defined using Amazon States Language. [Learn more](#)

```

1  {
2      "Comment": "An example of the Amazon States Language for scheduling a
3      task.",
4      "StartAt": "Wait for Timestamp",
5      "States": {
6          "Wait for Timestamp": {
7              "Type": "Wait",
8              "SecondsPath": "$.timer_seconds",
9              "Next": "Send SNS Message"
10         },
11         "Send SNS Message": {
12             "Type": "Task",
13             "Resource": "arn:<PARTITION>:lambda:::function:SendToSNS",
14             "Retry": [
15                 {
16                     "ErrorEquals": [
17                         "States.ALL"
18                     ],
19                     "IntervalSeconds": 1,
20                     "MaxAttempts": 3,
21                     "BackoffRate": 2
22                 ],
23                 "End": true
24             }
25         }
26     }
27 }
```

```

graph TD
    Start((Start)) --> Wait[Wait for Timestamp]
    Wait --> Task[Send SNS Message]
    Task --> End((End))
    
```

⌚ Topic **source-code-changes** created successfully.
You can create subscriptions and send messages to them from this topic.

[Publish message](#) ×

Amazon SNS > Topics > source-code-changes

source-code-changes

[Edit](#) [Delete](#) [Publish message](#)

Details	
Name source-code-changes	Display name Source Code Changes Alert
ARN arn:aws:sns:us-east-1:451147979072:source-code-changes	Topic owner 451147979072
Type Standard	

← ⌂ ⌃ ⌄ ⌅ ⌆ ⌇ ⌈ ⌉ ⌊ ⌋ ⌊ ⌋ ⌊ ⌋

AWS Notification - Subscription Confirmation ➔ Inbox

 **Source Code Changes Alert** <no-reply@sns.amazonaws.com>
to me ▾

You have chosen to subscribe to the topic:
arn:aws:sns:us-east-1:451147979072:source-code-changes

To confirm this subscription, click or visit the link below (if this was in error no action is necessary):
[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)

[Reply](#) [Forward](#)

```
{  
  "Version": "2012-10-17",  
  "Id": "example-ID",  
  "Statement": [  
    {  
      "Sid": "example-statement-ID", ←  
      "Effect": "Allow",  
      "Principal": {  
        "Service": "s3.amazonaws.com"  
      },  
      "Action": [  
        "SNS:Publish"  
      ],  
      "Resource": "SNS-topic-ARN", ←  
      "Condition": {  
        "ArnLike": { "aws:SourceArn": "arn:aws:s3::*:bucket-name" }, ←  
        "StringEquals": { "aws:SourceAccount": "bucket-owner-account-id" } ←  
      }  
    }  
  ]  
}
```

source-code-changes

[Edit](#)[Delete](#)[Publish message](#)

Details

Name
source-code-changes

Display name
Source Code Changes Alert

ARN
arn:aws:sns:us-east-1:451147979072:source-code-changes

Topic owner
451147979072

Type
Standard

[Subscriptions](#)[Access policy](#)[Delivery retry policy \(HTTP/S\)](#)[Delivery status logging](#)[Encryption](#)[Tags](#)

Subscriptions (1)

[Edit](#)[Delete](#)[Request confirmation](#)[Confirm subscription](#)[Create subscription](#)< 1 >IDEndpointStatusProtocol

1 of 29,376

**Source Code Changes Alert** <no-reply@sns.amazonaws.com>

11:10 (4 minutes ago)



to me

{"Records":[{"eventVersion":"2.1","eventSource":"aws:s3","awsRegion":"us-east-1","eventTime":"2021-06-28T05:40:25.327Z","eventName":"ObjectCreated:Put","userIdentity":{"principalId":"A1Z1CX3KF0KN4X"}, "requestParameters":{"sourceIPaddress":"171.49.209.115"}, "responseElements":{"x-amz-request-id":"VAJ5MFYNXP3C7HCT","x-amz-id-2":"Am9k3nGxJnBSvCKs9SMZwj6FvFIAMAghkT8COj2KS2ZapukoTDf668uNjAy6goarxhypsVKvKUW6vclImU2nDDCm1nR2pnC"}, "s3":{"s3SchemaVersion":"1.0","configurationId":"New files added alert","bucket":{"name":"vegan-good-deed","ownerIdentity":{"principalId":"A1Z1CX3KF0KN4X"}, "arn":"arn:aws:s3:::vegan-good-deed"}, "object":{"key":"AWS-EC2.jpg","size":1467631,"eTag":"2b96bafc55712749cca87e21c5d7066e","sequencer":"0060D960D01DB04A9A"}}}]



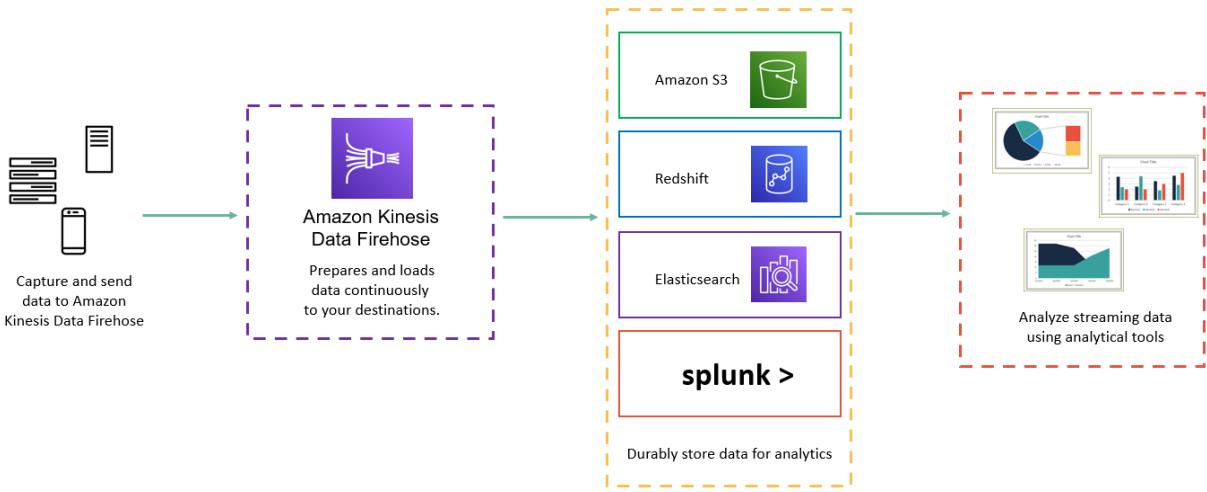
--

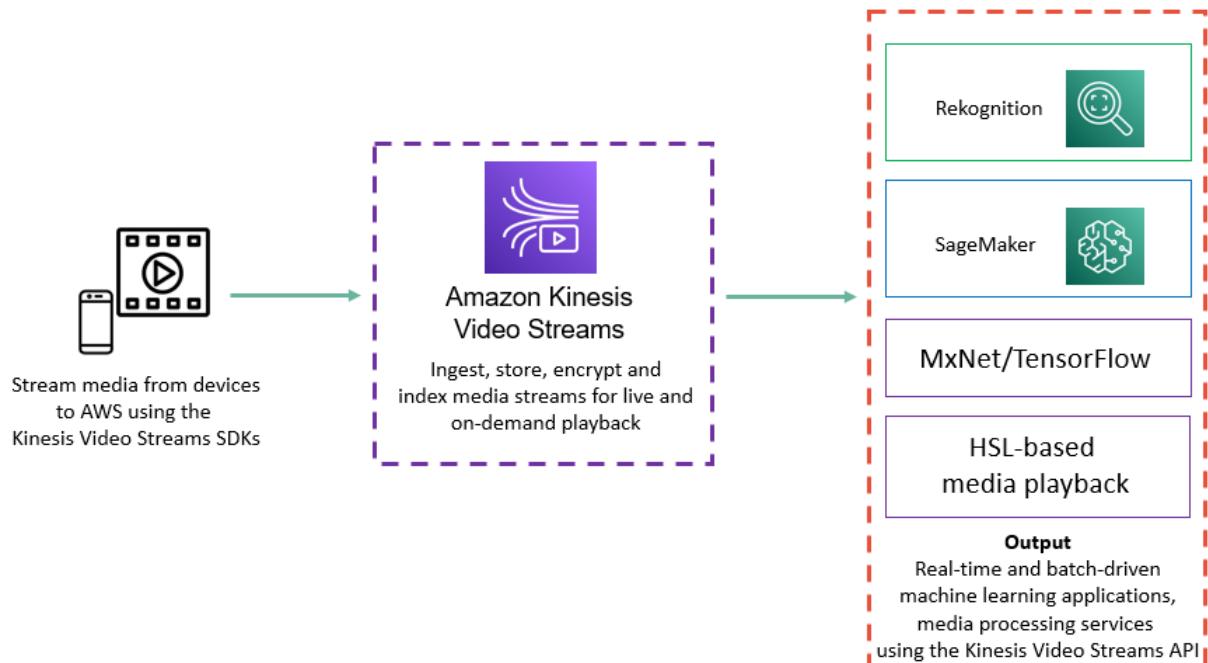
If you wish to stop receiving notifications from this topic, please click or visit the link below to unsubscribe:

<https://sns.us-east-1.amazonaws.com/unsubscribe.html?SubscriptionArn=arn:aws:sns:us-east-1:451147979072:source-code-changes:1ad1b01f-29e0-45bb-a9c5-bc9736e041d2&Endpoint=rykacloud@gmail.com>

Please do not reply directly to this email. If you have any questions or comments regarding this email, please contact us at <https://aws.amazon.com/support>

Chapter 11: Analytics on AWS





Amazon Athena

X

New Athena experience
[Let us know what you think](#)

[Query editor](#)

[Workgroups](#)

[Data sources](#)

X

Settings

Settings apply by default to all new queries. [Learn more](#)

Query result location and encryption

Workgroup: [primary](#)

Query result location

Select

The S3 path requires a trailing slash. Example: s3://query-results-bucket/folder/

Encrypt query results

 [i](#)

Autocomplete

 [i](#)

Query engine version

Athena occasionally releases a new engine version to provide improved performance, functionality, and code fixes.

[Learn more](#)

Upgrade query engines

Let Athena choose when to automatically upgrade all of your workgroups manually set on Athena engine version 1 to Athena engine version 2.

[Set workgroups to automatically upgrade](#) [i](#)

[Cancel](#)

[Save](#)



Data source

[Connect data source](#)

AwsDataCatalog



Database

sampledb



[Filter tables and views...](#)

Crawlers A crawler connects to a data store, progresses through a prioritized list of classifiers to determine

Add crawler	Run crawler	Action ▾	 Filter by tags and attributes
✓	Name	Schedule	Status
<input checked="" type="checkbox"/>	vegan-sales-crawler		Ready

Add crawler		Run crawler	Action	Filter by tags and attributes		Showing: 1 - 1			
	Name	Schedule	Status	Logs	Last runtime	Median runtime	Tables updated	Tables added	
<input type="checkbox"/>	vegan-sales-crawler		Ready	Logs	42 secs	42 secs	0	1	

Athena Query editor Saved queries History **Data sources** Workgroup : primary

Data sources

Data sources that Athena can connect to are listed below by their catalog names. You can connect Athena to multiple catalogs.

Connect data source View details Edit Delete

Filter:

	Catalog name ▲
<input type="radio"/>	AwsDataCatalog ↗

Athena Query editor Saved queries History

Data source Connect data source

AwsDataCatalog

Database

vegansalesdb

Filter tables and views...

Tables (1) Create table

vegan_sales_report

Views (0) Create view

You have not created any views. To create a view, run a query and click "Create view from query"

Data source Connect data source

AwsDataCatalog

Database

vegansalesdb

Filter tables and views...

Tables (1) Create table

vegan_sales_report

Views (0) Create view

You have not created any views. To create a view, run a query and click "Create view from query"

New query 1 New query 2 +

```
1 SELECT * FROM "vegansalesdb"."vegan_sales_report" limit 10;
```

Run query Save as Create (Run time: 0.47 seconds, Data scanned: 0.3 KB)

Format query Clear

Use Ctrl + Enter to run query, Ctrl + Space to autocomplete

Athena engine version 2 Release versions

Results

#	city	type	outlets	total
1	New York	CAFE	10	125000
2	New York	RESTAURANT	4	75000
3	Los Angeles	CAFE	15	225000
4	Los Angeles	RESTAURANT	8	115000
5	Chicago	CAFE	3	35000
6	Chicago	RESTAURANT	1	25000

New query 1 **New query 2** +

```
1 SELECT * FROM "vegansalesdb"."vegan_sales_report" WHERE total >=100000;
```

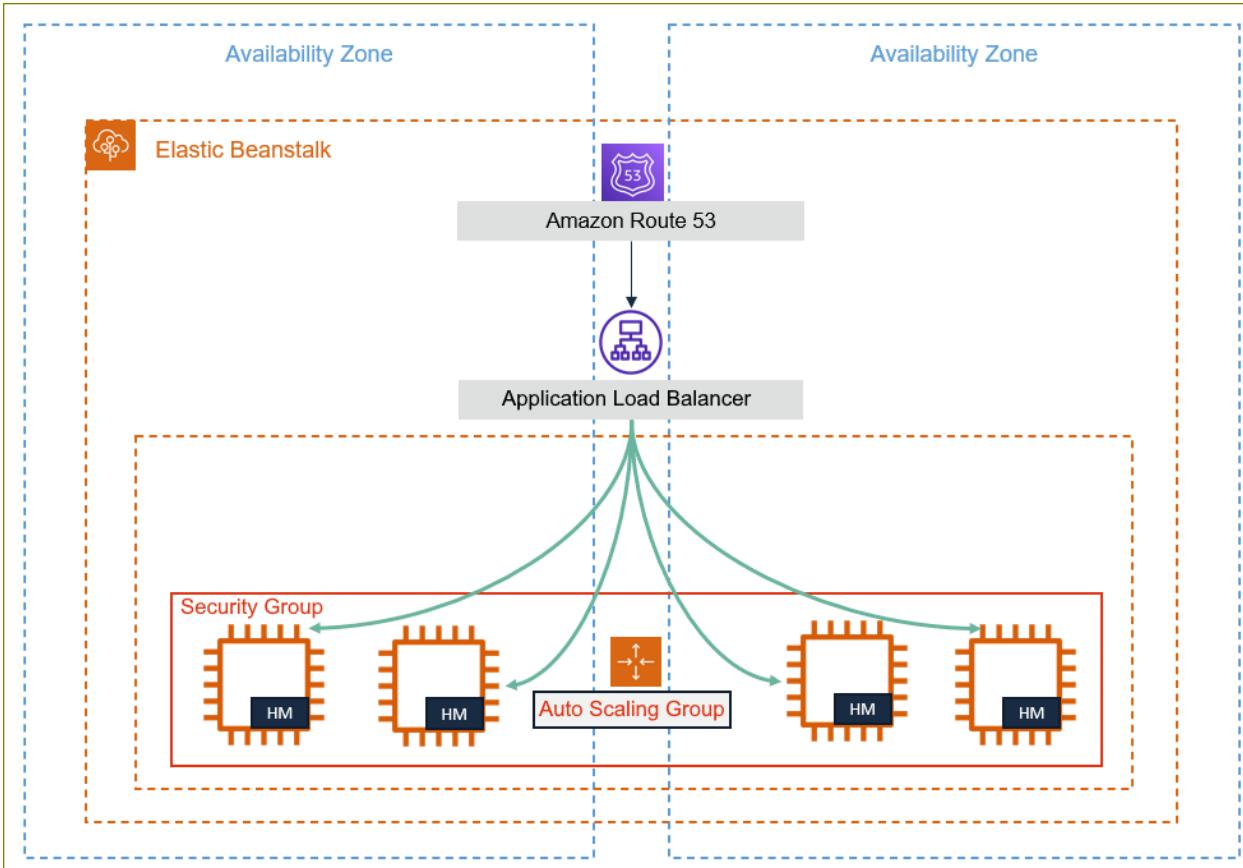
Run query **Save as** **Create** (Run time: 0.56 seconds, Data scanned: 0.3 KB) **Format query** **Clear**

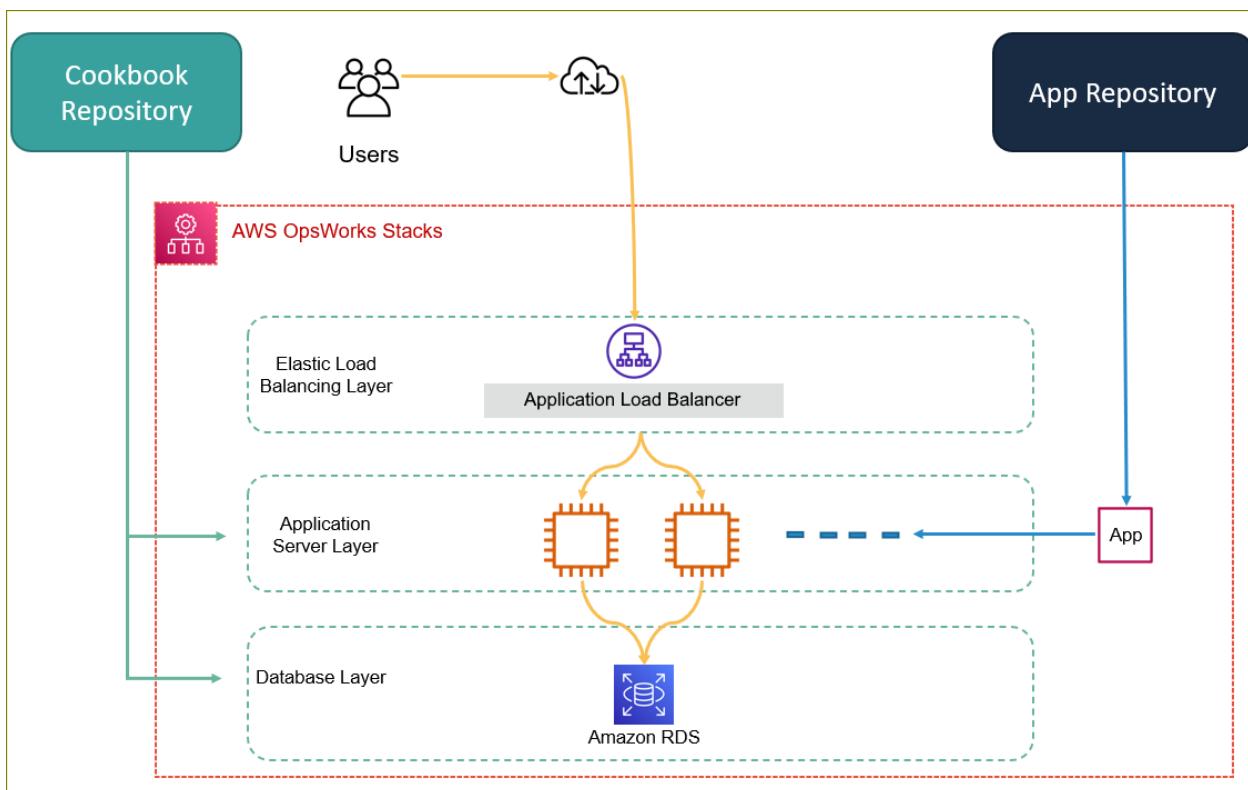
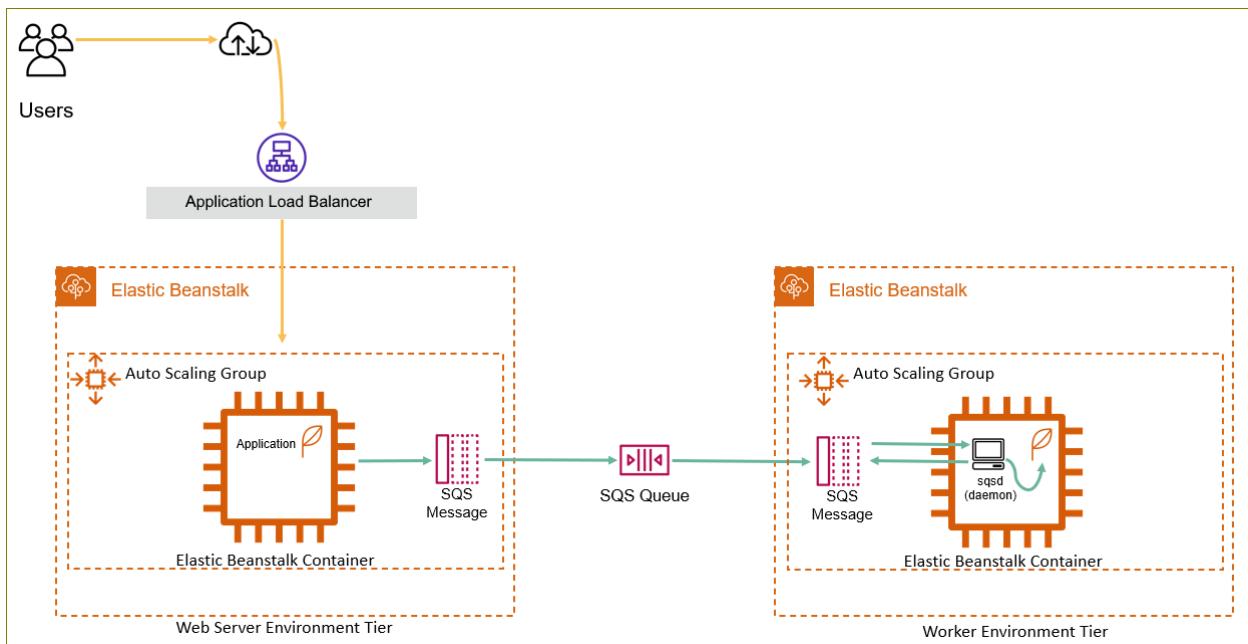
Use Ctrl + Enter to run query, Ctrl + Space to autocomplete Athena engine version 2 Release versions

Results

	city ▾	type ▾	outlets ▾	total ▾
1	New York	CAFE	10	125000
2	Los Angeles	CAFE	15	225000
3	Los Angeles	RESTAURANT	8	115000
4	Boston	CAFE	10	135000
5	Atlanta	CAFE	15	145000
6	Atlanta	RESTAURANT	5	125000

Chapter 12: Automation and Deployment on AWS





1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

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
SSH	TCP	22	Custom	0.0.0.0/0
e.g. SSH for Admin Desktop <input type="button" value="X"/>				
<input type="button" value="Add Rule"/>				

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

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check
<input checked="" type="checkbox"/>	UAT-Server-01	i-0fb785edbea16655c	<input checked="" type="radio"/> Running <input type="radio"/>	t2.micro	<input checked="" type="radio"/> 2/2 checks passed

Instance: i-0fb785edbea16655c (UAT-Server-01)

Instance summary [Info](#)

Instance ID	Public IPv4 address
<input type="button" value="i-0fb785edbea16655c (UAT-Server-01)"/>	<input type="button" value="3.208.27.16 open address"/>

Lambda > Functions

Functions (3)

Last fetched 31 seconds ago

	Function name	Description	Package type	Runtime	Code size
<input type="radio"/>	StartEC2Instances		Zip	Python 3.8	308.0 byte
<input type="radio"/>	StopEC2Instances		Zip	Python 3.8	310.0 byte

Step 1: Create rule

Create rules to invoke Targets based on Events happening in your AWS environment.

Event Source

Build or customize an Event Pattern or set a Schedule to invoke Targets.

Event Pattern  Schedule 

Fixed rate of Minutes 

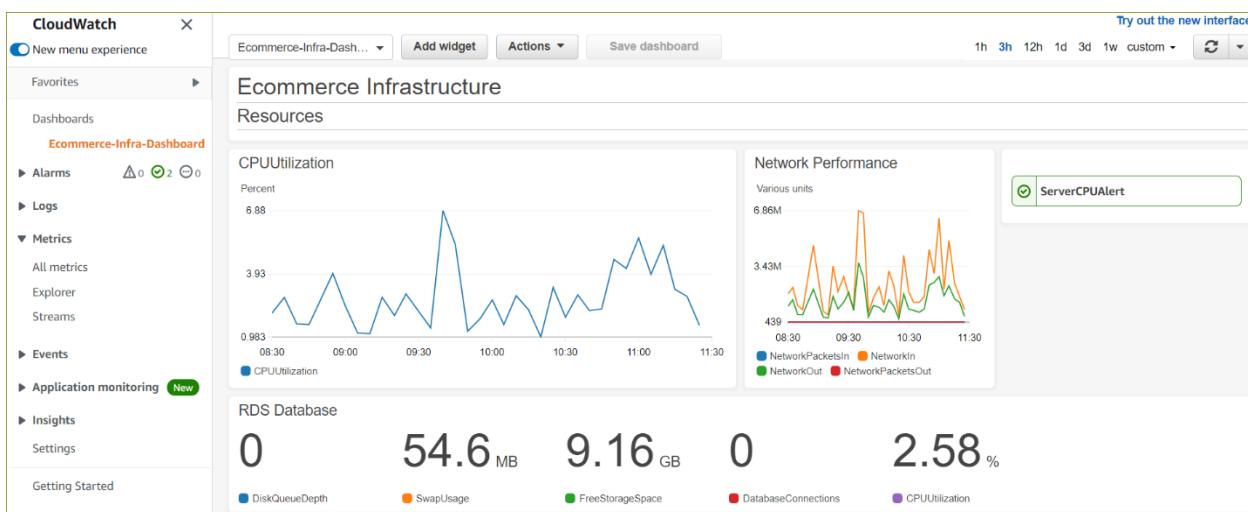
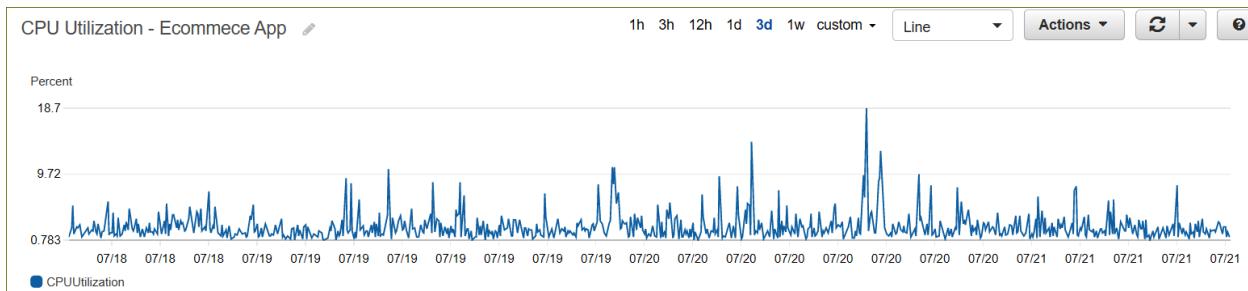
Cron expression

Next 10 Trigger Date(s)

1. Tue, 20 Jul 2021 18:00:00 GMT
2. Wed, 21 Jul 2021 18:00:00 GMT
3. Thu, 22 Jul 2021 18:00:00 GMT
4. Fri, 23 Jul 2021 18:00:00 GMT
5. Mon, 26 Jul 2021 18:00:00 GMT
6. Tue, 27 Jul 2021 18:00:00 GMT
7. Wed, 28 Jul 2021 18:00:00 GMT
8. Thu, 29 Jul 2021 18:00:00 GMT
9. Fri, 30 Jul 2021 18:00:00 GMT
10. Mon, 02 Aug 2021 18:00:00 GMT

[Learn more](#) about CloudWatch Events schedules.

Chapter 13: Management and Governance on AWS



This screenshot shows the "Event history" section of the CloudTrail console. It displays a table of management events over the last 90 days. The columns are: Read-only, Event name, Event time, User name, Event source, Resource type, and Resource name. The table lists several events, such as "SendSSHPublicKey", "CreateTags", and "RunInstances", performed by user "Alice".

Read-only	Event name	Event time	User name	Event source	Resource type	Resource name
<input type="checkbox"/>	SendSSHPublicKey	July 26, 2021, 09:33:15 (UTC+0...)	Alice	ec2-instance-connect.amazonaws.com	AWS::EC2::Instance	i-04c8bbe9f9487bc90
<input type="checkbox"/>	CreateTags	July 26, 2021, 09:32:34 (UTC+0...)	Alice	ec2.amazonaws.com	-	-
<input type="checkbox"/>	SharedSnapshotVolu...	July 26, 2021, 09:30:08 (UTC+0...)	-	ec2.amazonaws.com	-	-
<input type="checkbox"/>	RunInstances	July 26, 2021, 09:30:06 (UTC+0...)	Alice	ec2.amazonaws.com	AWS::EC2::VPC, AWS::E...	vpc-dc17a2b5, ami-03ac5a9b225e99b02...
<input type="checkbox"/>	AuthorizeSecurityGro...	July 26, 2021, 09:30:05 (UTC+0...)	Alice	ec2.amazonaws.com	AWS::EC2::SecurityGroup	sg-0c9fe60685a07dac9
<input type="checkbox"/>	CreateSecurityGroup	July 26, 2021, 09:30:04 (UTC+0...)	Alice	ec2.amazonaws.com	AWS::EC2::VPC, AWS::E...	vpc-dc17a2b5, WebServerSG, sg-0c9fe60...
<input type="checkbox"/>	CreateKeyPair	July 26, 2021, 09:30:01 (UTC+0...)	Alice	ec2.amazonaws.com	AWS::EC2::KeyValuePair	LondonKeys

19:32:29 Configuration change 9 field change(s)

From

```
{
    Configuration.NetworkInterfaces.0: {"attachment": {"attachTime": "2021-07-26T04:00:06.000Z"}, "attachmentId": "eni-attach-042134fc462b4304f", "deleteOnTermination": true, "deviceIndex": 0, "status": "attached", "networkCardIndex": 0}, "description": "Primary network interface", "groups": [{"groupName": "WebServerSG", "groupId": "sg-0c9fe60685a07da9"}], "ipv6Addresses": [], "macAddress": "06:fb:c1:f3:ce", "networkInterfaceId": "eni-0bcd71970de2ffca0", "ownerId": "600468293619", "privateDnsName": "ip-172-31-9-204.eu-west-2.compute.internal", "privateIpAddress": "172.31.9.204"}, "privateIpAddresses": [{"primary": true, "privateIpAddress": "172.31.9.204"}], "sourceDestCheck": true, "status": "in-use", "subnetId": "subnet-e7a4d79c", "vpcId": "vpc-dc17a2b5", "interfaceType": "interface"}
}
```

To

```

Configuration.NetworkInterfaces.1: {"association": {"ipOwnerId": "amazon", "publicDnsName": "ec2-18-170-39-100.eu-west-2.compute.amazonaws.com", "publicIp": "18.170.39.100"}, "attachment": {"attachTime": "2021-07-26T04:00:06.000Z"}, "attachmentId": "eni-attach-042134fc462b4304f", "deleteOnTermination": true, "deviceIndex": 0, "status": "attached", "networkCardIndex": 0}, "description": "Primary network interface", "groups": [{"groupName": "WebServerSG", "groupId": "sg-0c9fe60685a07da9"}], "ipv6Addresses": [], "macAddress": "06:fb:c1:f3:ce", "networkInterfaceId": "eni-0bcd71970de2ffca0", "ownerId": "600468293619", "privateDnsName": "ip-172-31-9-204.eu-west-2.compute.internal", "privateIpAddress": "172.31.9.204"}, {"association": {"ipOwnerId": "amazon", "publicDnsName": "ec2-18-170-39-100.eu-west-2.compute.amazonaws.com", "publicIp": "18.170.39.100"}, "primary": true, "privateDnsName": "ip-172-31-9-204.eu-west-2.compute.internal", "privateIpAddress": "172.31.9.204"}], "sourceDestCheck": true, "status": "in-use", "subnetId": "subnet-e7a4d79c", "vpcId": "vpc-dc17a2b5", "interfaceType": "interface"}
}
Configuration.LaunchTime: "2021-07-26T12:46:15.000Z"
Configuration.State.Name: "stopped"
Configuration.InstanceType: "t2.micro"
Configuration.StateTransitionReason: "User initiated (2021-07-26 13:12:37 GMT)"
Configuration.PublicDnsName: ""
Configuration.StateReason: {"code": "Client.UserInitiatedShutdown", "message": "Client.UserInitiatedShutdown: User initiated shutdown"}
```

Settings

General settings

Resource types to record

Record all resources supported in this region

To learn more, see [Supported Resource Types](#).

Record specific resource types

Include global resources (e.g., AWS IAM resources)

Supported global resource types are IAM users, groups, roles, and customer managed policies.

AWS Config role

Use an existing AWS Config service-linked role

Choose a role from your account

Delivery method

Amazon S3 bucket

Create a bucket

Choose a bucket from your account

Choose a bucket from another account

Ensure appropriate permissions are available in this S3 bucket's policy. [Learn more](#).

S3 bucket name

config-bucket-600468293619

Prefix (optional)

/AWSLogs/600468293619/Config/
us-east-1

Amazon SNS topic

Stream configuration changes and notifications to an Amazon SNS topic.

If you choose email as the notification endpoint for your SNS topic, this can cause a high volume of email. [Learn more](#).

AWS Systems Manager > Documents > AWS-CreateRdsSnapshot

AWS-CreateRdsSnapshot

Delete Actions ▾ Execute automation

Description Content Versions Details

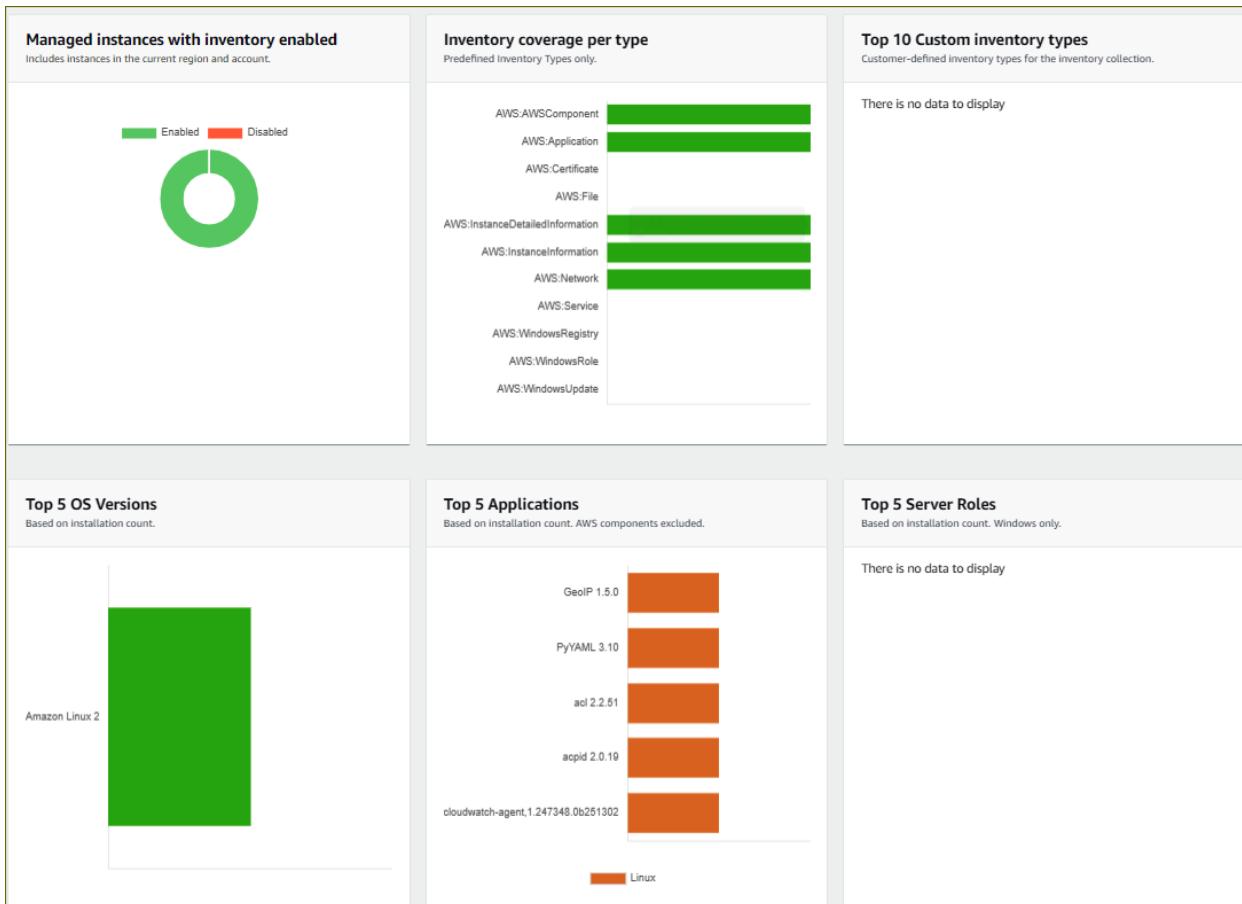
Document version
1 (Default)

Document description

Platform: Windows, Linux, MacOS Created: Thu, 14 Nov 2019 18:15:51 GMT Owner: Amazon Target type: /AWS::RDS::DBInstance

Status: Active

Creates an RDS Snapshot for an RDS instance. This automation does not support encrypted snapshots.



Alert Criteria

Green: Access to port 80, 25, 443, or 465 is unrestricted.

Red: Access to port 20, 21, 1433, 1434, 3306, 3389, 4333, 5432, or 5500 is unrestricted.

Yellow: Access to any other port is unrestricted.

Recommended Action

Restrict access to only those IP addresses that require it. To restrict access to a specific IP address, set the suffix to /32 (for example, 192.0.2.10/32). Be sure to delete overly permissive rules after creating rules that are more restrictive.

Additional Resources

[Amazon EC2 Security Groups](#)

[List of TCP and UDP port numbers \(Wikipedia\)](#)

[Classless Inter-Domain Routing \(Wikipedia\)](#)

Security Groups - Specific Ports Unrestricted (3)

3 of 6 security group rules allow unrestricted access to a specific port.

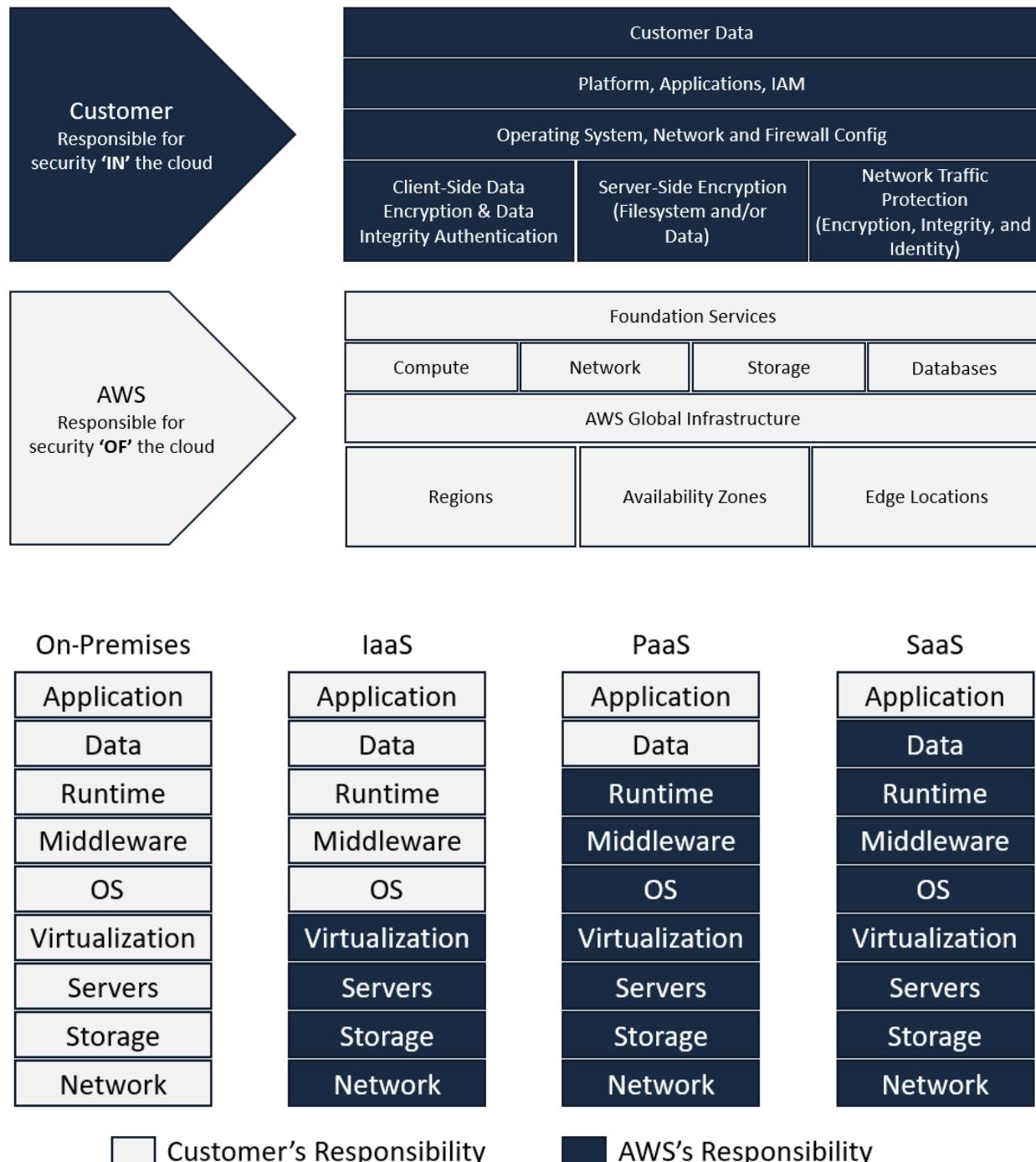
[Exclude & Refresh](#)

[Included items ▾](#)

< 1 > |

<input type="checkbox"/>	Status	Region	Security Group Name	Security Group ID	Protocol	From Port	To Port
<input type="checkbox"/>		eu-west-2	MyWebServerSG	sg-00bcd2a8ef5831d76	tcp	22	22
<input type="checkbox"/>		us-east-1	BastionHost-SG	sg-081e3d08d428cc717	tcp	22	22
<input type="checkbox"/>		us-east-1	launch-wizard-1	sg-0345f63096fa63009	tcp	22	22

Chapter 14: Implementing Security in AWS



Amazon Inspector

Amazon Inspector enables you to analyze the behavior of your AWS resources and helps you identify potential security issues. [Learn more](#).

[Help me create an Assessment](#)

Notable findings	Recent Assessment Runs (Last 10)									
<ul style="list-style-type: none"> 271 Important findings 284 Recent findings 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Date Run</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Run - Assessment-Template-Default-All-Rules - 2021-08-09T13:40:31.479Z</td> <td>Yesterday at 7:10 PM (GMT+5)</td> <td>Analysis complete</td> </tr> <tr> <td>Run - Assessment-Template-Default-All-Rules - 2021-08-09T13:25:12.360Z</td> <td>Yesterday at 6:55 PM (GMT+5)</td> <td>Analysis complete</td> </tr> </tbody> </table>	Name	Date Run	Status	Run - Assessment-Template-Default-All-Rules - 2021-08-09T13:40:31.479Z	Yesterday at 7:10 PM (GMT+5)	Analysis complete	Run - Assessment-Template-Default-All-Rules - 2021-08-09T13:25:12.360Z	Yesterday at 6:55 PM (GMT+5)	Analysis complete
Name	Date Run	Status								
Run - Assessment-Template-Default-All-Rules - 2021-08-09T13:40:31.479Z	Yesterday at 7:10 PM (GMT+5)	Analysis complete								
Run - Assessment-Template-Default-All-Rules - 2021-08-09T13:25:12.360Z	Yesterday at 6:55 PM (GMT+5)	Analysis complete								
Assessment status										
<ul style="list-style-type: none"> 1 Assessments running 2 Assessment runs completed 0 Assessment runs failed 										
Account settings										
Manage Amazon Inspector Service-Linked Role										

Amazon Inspector - Findings

Findings are potential security issues discovered after Amazon Inspector runs an assessment against a specified assessment target. [Learn more](#).

x Filters: { "severities": ["High"] }

Add/Edit attributes				Last updated on
<input type="checkbox"/> automatic updates				1 selected
	Severity ⓘ	Date	Finding	
<input checked="" type="checkbox"/>	▶ High	Yesterday at...	Instance i-0cb4a8760b00fe40d is not compliant with rule 18.9.101.2 L1 Ensure Configure Automatic Updates is set to Enabled, 1.1.0 CIS Micro...	
<input type="checkbox"/>	▶ High	Yesterday at...	Instance i-0cb4a8760b00fe40d is not compliant with rule 18.9.101.3 L1 Ensure Configure Automatic Updates Scheduled install day is set to 0 - E...	
<input type="checkbox"/>	▶ High	Yesterday at...	Instance i-0cb4a8760b00fe40d is not compliant with rule 18.9.101.4 L1 Ensure No auto-restart with logged on users for scheduled automatic upd...	

Macie > Summary

Summary [Info](#)

[Account](#) [Create job](#)

S3 buckets		Total S3 buckets	Storage (classifiable/total)	Objects (classifiable/total)																						
Last updated: August 10, 2021, 11:48:27 (UTC+05:30)	Percentages are based on the total number of S3 buckets for your account.	7	30.3 MB / 33.6 MB	109 / 157																						
Public access	Encryption	Sharing																								
<table border="1"> <tr> <td>Publicly accessible</td> <td>0 (0%)</td> </tr> <tr> <td>Publicly world writable</td> <td>0 (0%)</td> </tr> <tr> <td>Publicly world readable</td> <td>0 (0%)</td> </tr> <tr> <td>Not publicly accessible</td> <td>7 (100%)</td> </tr> </table>	Publicly accessible	0 (0%)	Publicly world writable	0 (0%)	Publicly world readable	0 (0%)	Not publicly accessible	7 (100%)	<table border="1"> <tr> <td>Default encryption disabled</td> <td>6 (86%)</td> </tr> <tr> <td>Not required by bucket policy</td> <td>6 (86%)</td> </tr> <tr> <td>Encrypt by default - SSE-S3</td> <td>1 (14%)</td> </tr> <tr> <td>Encrypt by default - SSE-KMS</td> <td>0 (0%)</td> </tr> <tr> <td>Required by bucket policy</td> <td>1 (14%)</td> </tr> </table>	Default encryption disabled	6 (86%)	Not required by bucket policy	6 (86%)	Encrypt by default - SSE-S3	1 (14%)	Encrypt by default - SSE-KMS	0 (0%)	Required by bucket policy	1 (14%)	<table border="1"> <tr> <td>Shared outside</td> <td>0 (0%)</td> </tr> <tr> <td>Shared inside</td> <td>0 (0%)</td> </tr> <tr> <td>Not shared</td> <td>7 (100%)</td> </tr> </table>	Shared outside	0 (0%)	Shared inside	0 (0%)	Not shared	7 (100%)
Publicly accessible	0 (0%)																									
Publicly world writable	0 (0%)																									
Publicly world readable	0 (0%)																									
Not publicly accessible	7 (100%)																									
Default encryption disabled	6 (86%)																									
Not required by bucket policy	6 (86%)																									
Encrypt by default - SSE-S3	1 (14%)																									
Encrypt by default - SSE-KMS	0 (0%)																									
Required by bucket policy	1 (14%)																									
Shared outside	0 (0%)																									
Shared inside	0 (0%)																									
Not shared	7 (100%)																									

	A	B	C	D
1	EmployeeID	Name	Department	Salary
2	JD-8976	Richard	IT	\$110,000.00
3	JD-9899	Mark	Sales	\$120,000.00
4	JD-1212	Fernando	Sales	\$120,000.00
5	JD-2343	Chekov	Catering	\$90,000.00
6				

Security, Identity, & Compliance

Amazon Macie

Discover and protect your sensitive data at scale

Amazon Macie is a data security and data privacy service that uses machine learning to help you identify and protect your sensitive data in AWS.

Get started with Macie

Automatically discover sensitive data across all of your organization's S3 buckets.

Review detailed findings to take remediation action.

[Get started](#)

Enable Amazon Macie

When you enable Macie, Macie automatically creates a service-linked role for your account. This role gives Macie the permissions that it needs to perform tasks such as gather information about the data that you store in Amazon S3, evaluate and monitor your S3 buckets for security and access control, and run sensitive data discovery jobs that you create to find and report sensitive data in the buckets.

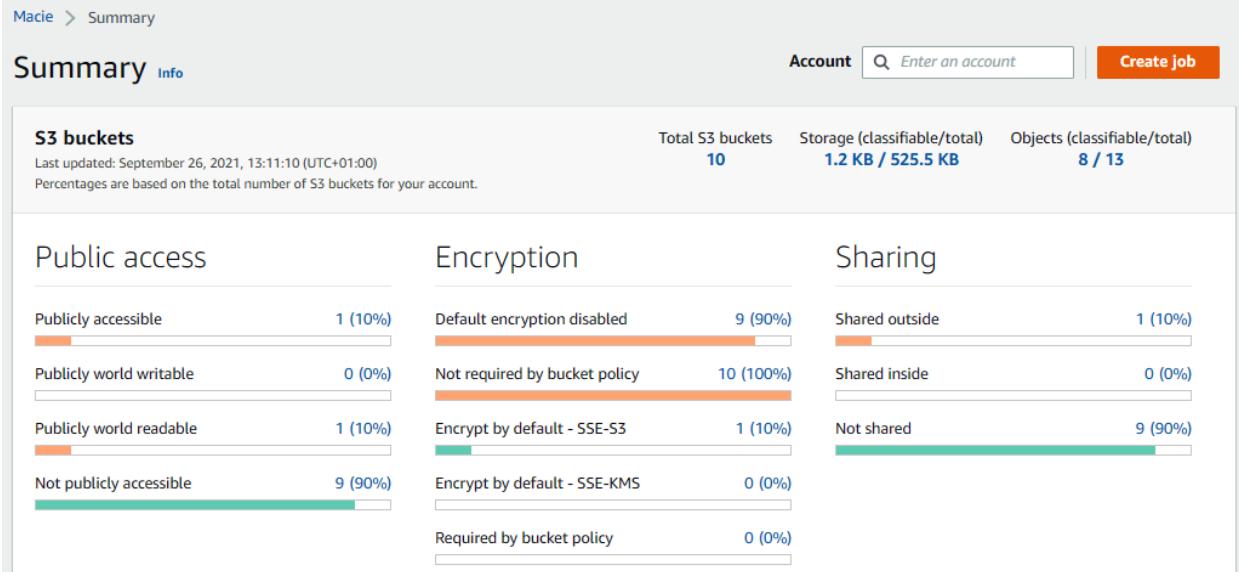
[View role permissions](#)

After you enable Macie, Macie gathers information about your buckets, such as the storage size, encryption settings, and public access settings for each bucket. Macie also begins monitoring the buckets for security and access control, notifying you if the security of a bucket is reduced in some way. You can evaluate this feature at no charge for the first 30 days, and review estimated costs before charges begin to accrue.

To discover sensitive data, create and configure sensitive data discovery jobs to analyze data in buckets that you specify. There's no charge for analyzing up to 1 GB of data each month. For more information, see [Amazon Macie pricing](#).

[Cancel](#)

[Enable Macie](#)



Macie > Custom data identifiers

Custom data identifiers (0) Info

A custom data identifier is a set of criteria that you define to detect sensitive data. Select each custom data identifier that you want the job to use.

<input type="checkbox"/>	Name	Description
You haven't created any custom data identifiers yet.		

Select custom data identifiers Info

A custom data identifier is a set of criteria that you define to detect sensitive data. Select each custom data identifier that you want the job to use.

Custom data identifiers		<input type="button" value="C"/>	<input checked="" type="button"/> Manage custom identifiers
<input type="checkbox"/>	Identifier name	Description	
<input type="checkbox"/>	EmployeeID	<input checked="" type="checkbox"/>	

Macie > Jobs Create job

Jobs (1/2) Info

Jobs analyze objects in S3 buckets to discover and report sensitive data. To help ensure accurate results for audits or investigations, you can't change the settings for an existing job.

C Actions ▾

T Add filter criteria

<input type="checkbox"/> Job name	Resources	Job ...	Status	Created at
<input type="checkbox"/> EmployeeIDJobs	1	One time	⌚ Active (Running)	seconds ago

Macie > Findings Showing 1 of 1 0 1 0

Findings (1) Info

This table lists findings for your organization. Select a finding to show its details. You can also filter, group, and sort findings based on specific fields and field values.

Suppress findings Saved rules No saved rules Save rule X

T Job ID: 6b30cdd7ff0b0becc8521d5704a16eea Add filter Save rule X

<input type="checkbox"/> Sev... ▾	Finding type	Resources affected	Updated at
<input type="checkbox"/> Medium	SensitiveData:S...CustomIdentifier	justdessertsproducts/salaries.csv	8 minutes ago

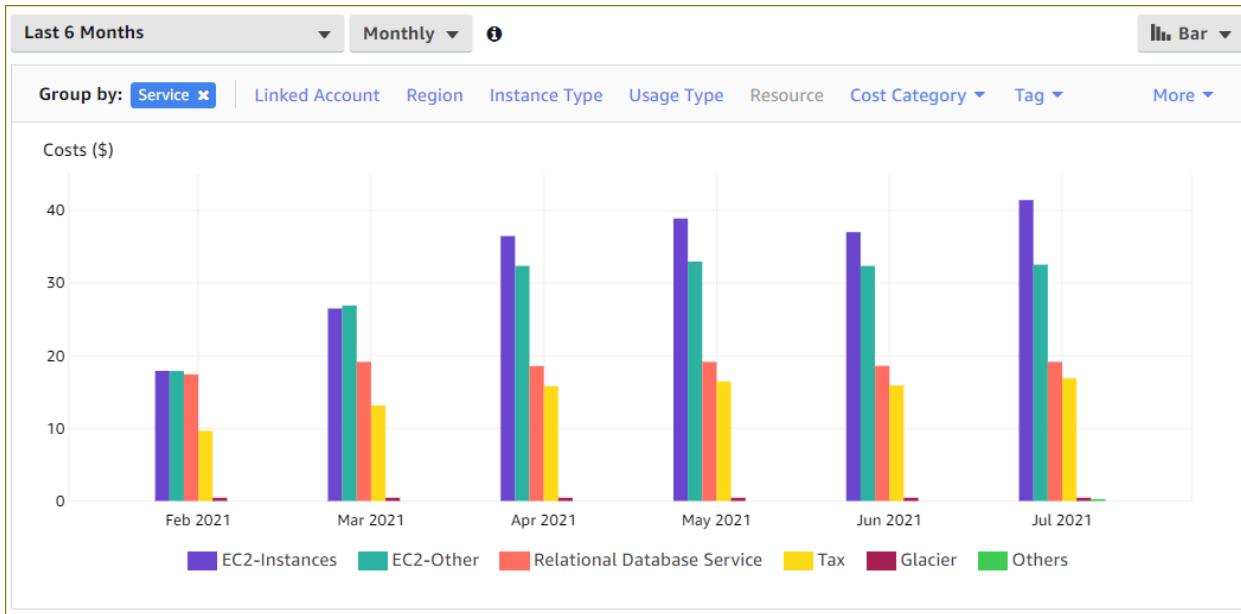
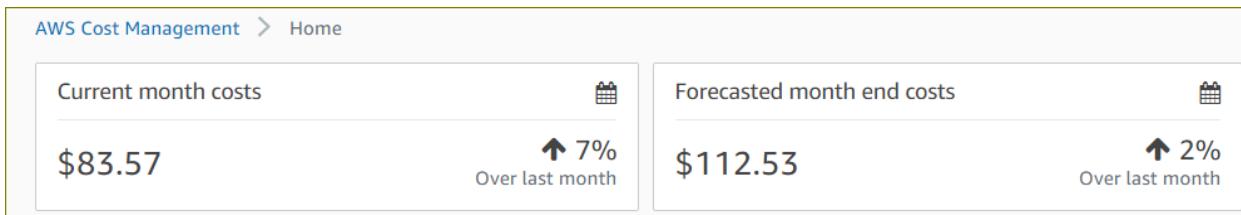
Read-only ⓘ

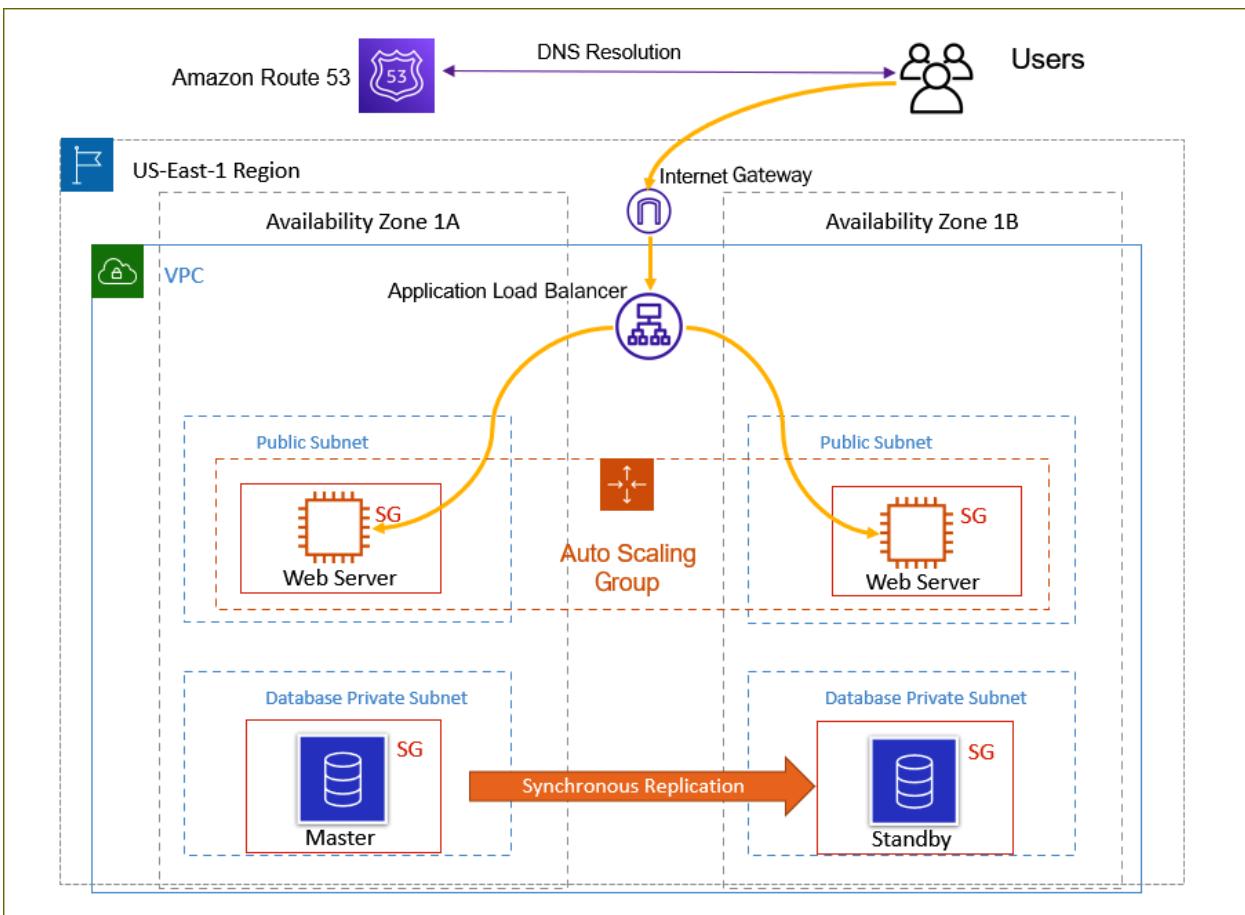
```

1 [ { "accountId": "451147979072",
2   "archived": false,
3   "category": "CLASSIFICATION",
4   "classificationDetails": {
5     "detailedResultsLocation": "s3://[export-config-not-set]/AWSLogs/451147979072/Macie/us-east-1
6       /6b30cdd7ff0b0becc8521d5704a16eea/451147979072/b29381d3-fae2-31e4-b8ee-a673d2422eb9.jsonl
7       .gz",
8     "jobArn": "arn:aws:macie2:us-east-1:451147979072:classification-job
9       /6b30cdd7ff0b0becc8521d5704a16eea",
10    "jobId": "6b30cdd7ff0b0becc8521d5704a16eea",
11    "result": {
12      "additionalOccurrences": false,
13      "customDataIdentifiers": {
14        "detections": [
15          {
16            "arn": "c674bf71-5f9d-40d7-828f-49a4a4e21c9f",
17            "count": 4,
18            "name": "employeeid",
19            "occurrences": {
20              "cells": [
21                ...
22              ]
23            }
24          }
25        ]
26      }
27    }
28  }
29 }

```

Chapter 15: Billing and Pricing





EC2 instance specifications Info

Operating system

Choose which operating system you'd like to run Amazon EC2 instances on.

Linux



Instance type

Search by name or enter the requirement to find the lowest cost instance for your needs.

- Enter minimum requirements for each instance:
- Search instances by name:

t2.medium X

t2.medium

On-Demand hourly cost

0.0464

vCPUs

2

GPUs

NA

1YR Std reserved hourly cost

0.0287

Memory (GiB)

4 GiB

Network performance

Low to Moderate

Quantity

Enter the number of Amazon EC2 instances that you need.

2

Set budget amount

Period

Daily budgets do not support enabling forecasted alerts, daily budget planning, or attaching actions.

Monthly



Budget effective date

- Recurring budget

Recurring budgets renew on the first day of every monthly billing period.

- Expiring budget

Expiring monthly budgets stop renewing at the end of the selected expiration month.

Start month

Aug

2021

Choose how to budget

- Fixed

Create a budget that tracks against a single monthly budgeted amount.

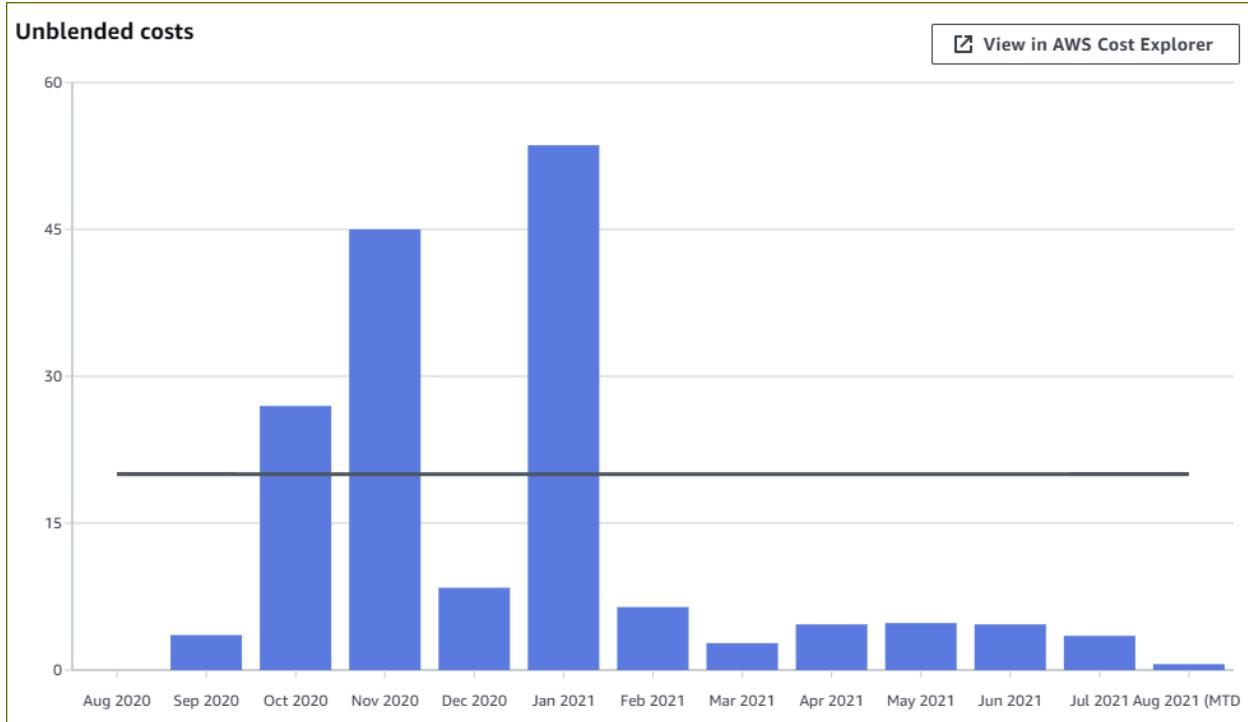
- Monthly budget planning

Specify your budgeted amount for each budget period.

Enter your budgeted amount (\$)

Last month's cost: \$0.60

20.00



▼ Alert #1

Set alert threshold

Threshold
When should this alert be triggered?

Trigger
How should this alert be triggered?

80	% of budgeted amount	▼	Actual	▼
----	----------------------	---	--------	---

Summary: When your actual cost is greater than 80.00% (\$16.00) of your **budgeted amount** (\$20.00), the alert threshold will be exceeded.

Billing Console > Budgets > Overview

Overview Info

Budgets (1) Info

Budgets (1)		Info	Download CSV	Actions ▾	Create budget
<input type="text"/> Find a budget		Show all budgets ▾	< 1 > ⌂		
Name	Thresholds ▾	Budget	Amount used	Forecasted amount	Current vs. budgeted ▾
Packt Lab Exercises Budgets for CLF-C01	OK	\$20.00	\$0.60	\$0.61	3.00% ▾

Chapter 16: Mock Tests

No Images