

Amazon Web Services (AWS) Route 53

AWS Route 53 is a scalable and highly available Domain Name System (DNS) web service provided by Amazon Web Services. It offers domain registration, DNS routing, traffic management, health checks, failover capabilities, and DNS security features.

Key Features:

1. Domain Registration:

- Route 53 allows you to register and manage domain names.
- You can purchase and manage domain names directly from the AWS Management Console.
- It simplifies the process of configuring DNS settings for your domains.

2. DNS Routing:

- Route 53 provides highly scalable and reliable DNS routing services.
- It translates human-readable domain names into IP addresses, enabling users to access web resources.

3. Traffic Management:

- Traffic management features allow you to control how traffic is distributed across different resources.
- You can use policies like weighted routing, latency-based routing, geolocation-based routing, and more to optimize traffic flow.

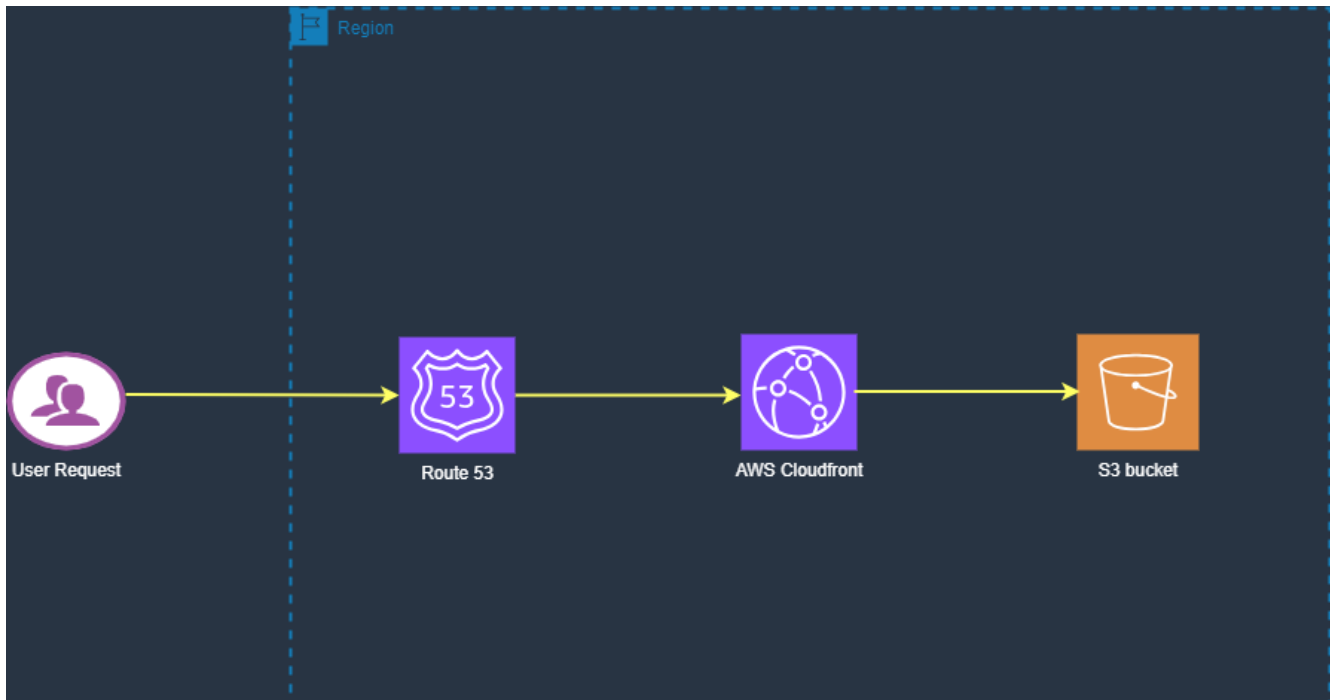
4. Health Checks and Failover:

- Route 53 performs health checks on your resources to ensure they are reachable and responsive.
- You can configure failover routing to automatically redirect traffic to healthy resources if an endpoint becomes unavailable.

5. DNS Security:

- Route 53 provides DNS security through features like DNSSEC (Domain Name System Security Extensions) to protect against DNS spoofing and cache poisoning attacks.
- You can set up query logging to gain insights into DNS query patterns and detect potential threats.

Lab architecture reference



AWS SERVICES USED:

- **Amazon S3 bucket:** is a scalable and durable cloud storage service by AWS
- **Amazon Route 53:** is a scalable and highly available DNS web service, offering domain registration and routing traffic to resources like websites and web applications.
- **Amazon CloudFront:** is a content delivery network (CDN) service that accelerates the distribution of web content to reduce latency and providing high availability by caching the content at placed edge locations around the world.

AWS S3 Bucket

Create S3 bucket | Upload files | Create S3 Bucket Policy | Enable Static Website Hosting

www.e-buy250.000webhostapp.com [Info](#)

Publicly accessible

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (8)

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.

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Find objects by prefix

Show versions

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	css/	Folder	-	-	-
<input type="checkbox"/>	electronic.html	html	October 6, 2023, 09:54:16 (UTC+02:00)	18.9 KB	Standard
<input type="checkbox"/>	fashion.html	html	October 6, 2023, 09:54:17 (UTC+02:00)	18.8 KB	Standard
<input type="checkbox"/>	fonts/	Folder	-	-	-
<input type="checkbox"/>	images/	Folder	-	-	-
<input type="checkbox"/>	index.html	html	October 6, 2023, 09:54:18 (UTC+02:00)	35.5 KB	Standard
<input type="checkbox"/>	jewellery.html	html	October 6, 2023, 09:54:19 (UTC+02:00)	19.0 KB	Standard
<input type="checkbox"/>	js/	Folder	-	-	-

Static website hosting

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://www.e-buy250.000webhostapp.com.s3-website-us-east-1.amazonaws.com>

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

```
{
  "Version": "2012-10-17",
  "Id": "Policy1696580873009",
  "Statement": [
    {
      "Sid": "Stmt1696580871090",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::www.e-buy250.000webhostapp.com/*"
    }
  ]
}
```

AWS Route 53

Create a hosted zone in Amazon Route53 | Update Domain Name Servers | Create a record set

Route 53 > Hosted zones > e-buy250.000webhostapp.com

Public e-buy250.000webhostapp.com [Info](#) [Delete zone](#) [Test record](#) [Configure query logging](#)

► Hosted zone details [Edit hosted zone](#)

[Records \(4\)](#) | [DNSSEC signing](#) | [Hosted zone tags \(0\)](#)

Records (4) [Info](#) [Refresh](#) [Delete record](#) [Import zone file](#) [Create record](#)

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

Filter records by property or value [Type](#) [Routing pol...](#) [Alias](#) [<](#) [1](#) [>](#) [⚙](#)

<input type="checkbox"/>	Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Health ...	Evalua...	R..
<input type="checkbox"/>	e-buy250.000webhostapp.com	A	Simple	-	Yes	s3-website-us-east-1.amazo...	-	-	Yes	-
<input type="checkbox"/>	e-buy250.000webhostapp.com	NS	Simple	-	No	ns-561.awsdns-06.net. ns-1454.awsdns-53.org. ns-1646.awsdns-13.co.uk. ns-186.awsdns-23.com.	172800	-	-	-
<input type="checkbox"/>	e-buy250.000webhostapp.com	SOA	Simple	-	No	ns-561.awsdns-06.net. awsd...	900	-	-	-

Copy the name servers to my domain name registrar name server

<input checked="" type="checkbox"/>	e-buy250.000webhostapp.com	NS	Simple	-	No	ns-561.awsdns-06.net. ns-1454.awsdns-53.org. ns-1646.awsdns-13.co.uk. ns-186.awsdns-23.com.
-------------------------------------	----------------------------	----	--------	---	----	--

Create a record set and attach it to S3 website endpoint URL

Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...
e-buy250.000webhostapp.com	A	Simple	-	Yes	s3-website-us-east-1.amazo...	-

AWS CloudFront

Create a CloudFront Distribution


Distributions (1) Info								Refresh Enable Disable Delete Create distribution	
<input type="text" value="Search all distributions"/>								< 1 >	
<input type="checkbox"/>	ID	Descrip...	Type	Domain name	Alterna...	Origins	Status	Last modified	
<input type="checkbox"/>	E27L3X1ZJA3255	-	Production	dmkkmrpzjuvwm.cloudfro...	-	www.e-buy250.000webhostapp.com.s3.us-east-1.amazonaws.com	Enabled	October 6, 2023 at 10:28:23 AM UTC	


copy the distribution domain name and past it to the browser to check if it is working

E27L3X1ZJA3255


[General](#) | [Origins](#) | [Behaviors](#) | [Error pages](#) | [Geographic restrictions](#) | [Invalidations](#) | [Tags](#)

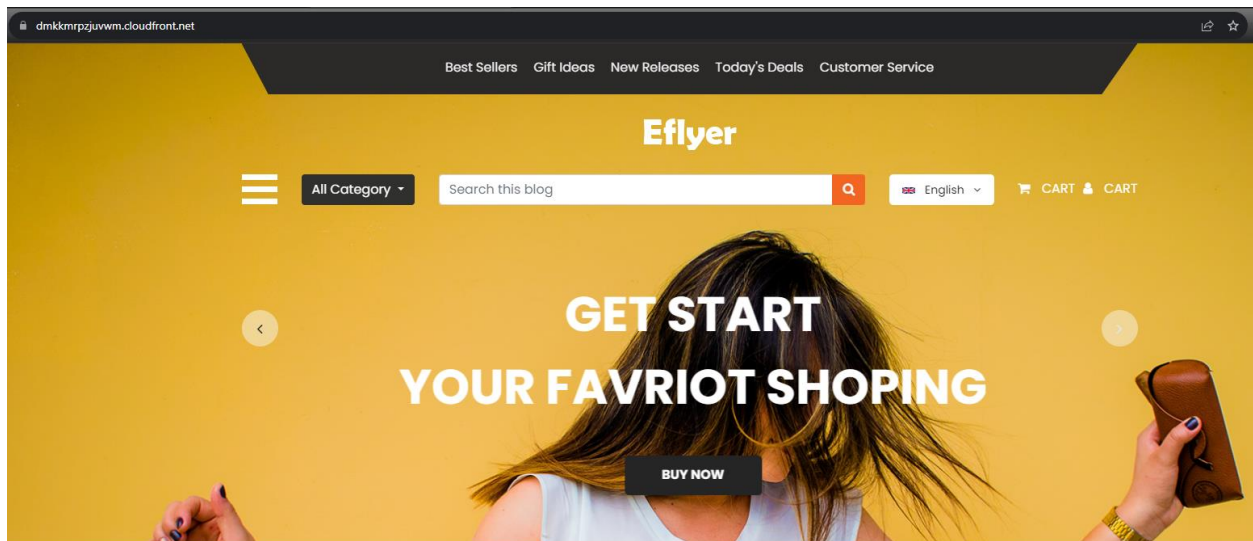
Details

 Distribution domain name copied

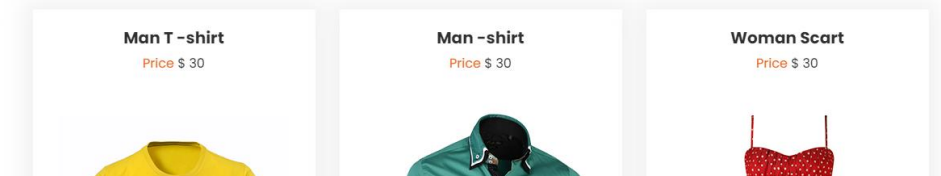
 dmkkmrpzjuvwm.cloudfront.net

ARN

 arn:aws:cloudfront::858881817729:distribution/E27L3X1ZJA3255



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Create a record set to route traffic to CloudFront Distribution

Route 53 > Hosted zones > e-buy250.000webhostapp.com

Public e-buy250.000webhostapp.com Info Delete zone Test record Configure query logging

Hosted zone details Edit hosted zone

Records (4) DNSSEC signing Hosted zone tags (0)

Records (1/4) Info
Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

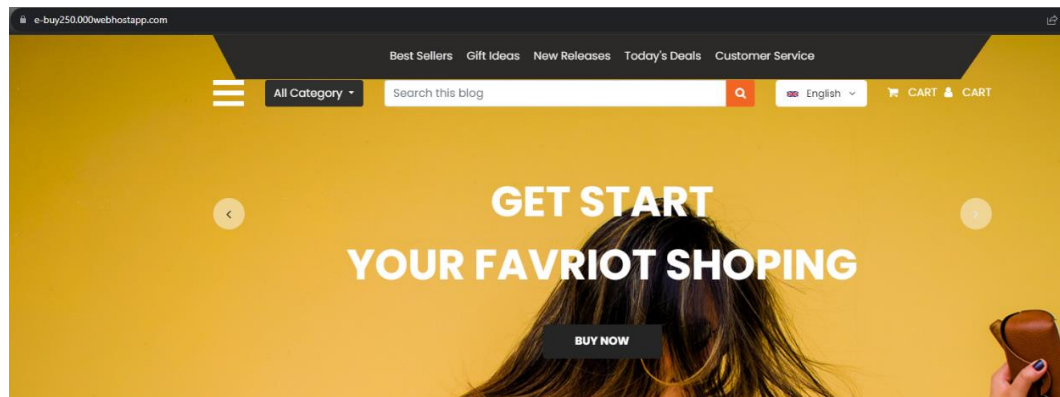
Refresh Delete record Import zone file Create record

Filter records by property or value Type Routing pol... Alias < 1 > ⚙

Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to
e-buy250.000webhostapp.com	A	Simple	-	Yes	s3-website-us-east-1.amazonaws.com.
e-buy250.000webhostapp.com	NS	Simple	-	No	ns-561.awsdns-06.net. ns-1454.awsdns-53.org. ns-1646.awsdns-13.co.uk. ns-186.awsdns-23.com.
e-buy250.000webhostapp.com	SOA	Simple	-	No	ns-561.awsdns-06.net. awsdns-hostmaster.amazon.cc
cloudfront.e-buy250.000webhostapp.com	A	Simple	-	Yes	https\072\057\057dmkmpzjuvwm.cloudfront.net.

cloudfront.e-buy250.000webhostapp.com A Simple - Yes https\072\057\057dmkmpzjuvwm.cloudfront.net.

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