

Scenario: - we have to configure some AWS services for HTTPS static website, we will use this following AWS services to get this task done.

1. S3
2. CloudFront
3. Route 53
4. AWS Certificate Manager (**N. Virginia**) region

Purchase Free Domain from

1. Freenom.com
2. Freedomini.com

Create Hosted Zone in Route53

The screenshot shows the AWS Route 53 console for the domain 'peaceking.ga'. The 'Hosted zone details' section is visible, showing the domain is public. Below this, the 'Records (2)' tab is selected, displaying a table of DNS records. The table has columns for Record name, Type, Routing policy, Differ..., and Value/Route traffic to. Two records are listed: an NS record for 'peaceking.ga' and a SOA record for 'peaceking.ga'.

| Record name | Type | Routing policy | Differ... | Value/Route traffic to |
|--------------|------|----------------|-----------|---|
| peaceking.ga | NS | Simple | - | ns-1049.awsdns-03.org. ns-1737.awsdns-25.co.uk. ns-694.awsdns-22.net. ns-41.awsdns-05.com. |
| peaceking.ga | SOA | Simple | - | ns-1049.awsdns-03.org. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400 |

We have our domain name and we are able to create DNS records for it, we can **request our certificate for CloudFront**. This will allow us to serve traffic over HTTPS.

Note: - To use an ACM certificate with Amazon CloudFront, you must request or import the certificate in the US East (N. Virginia) region only.

[Supported Regions - AWS Certificate Manager \(amazon.com\)](#)

Issue amazon SSL certificate from **amazon certificate manager service** in only North Virginia region

The screenshot shows the AWS Certificate Manager console. The 'Certificates (1)' tab is selected, displaying a table of certificates. The table has columns for Certificate ID, Domain name, Type, Status, In use?, and Renewal eligibility. One certificate is listed with the domain 'peaceking.ga' and a status of 'Pending validation'.

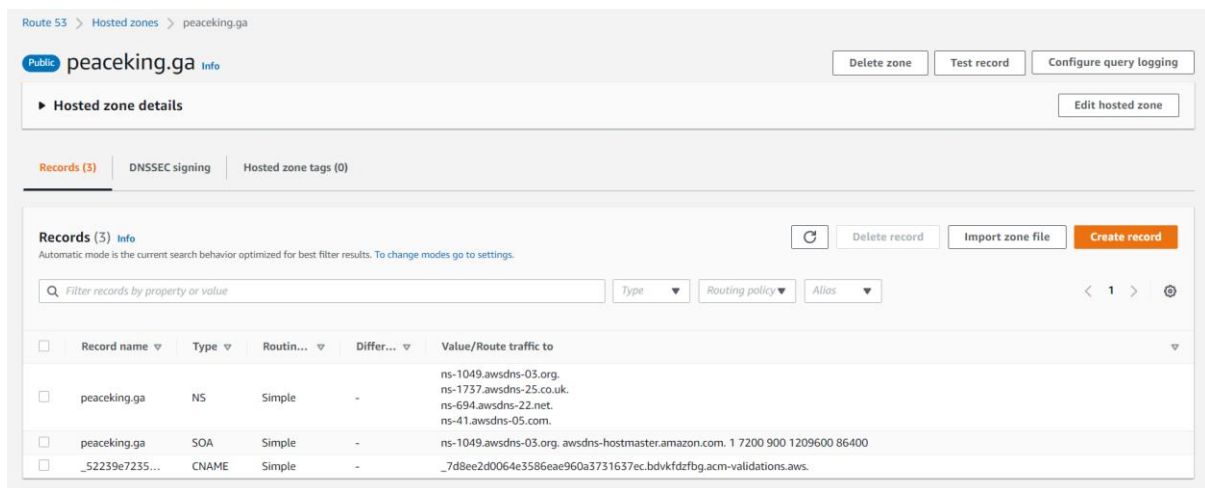
| Certificate ID | Domain name | Type | Status | In use? | Renewal eligibility |
|--------------------------------------|--------------|---------------|--------------------|---------|---------------------|
| d015dfb0-7192-4bf1-8168-8bc62d01f713 | peaceking.ga | Amazon Issued | Pending validation | No | Ineligible |

Create CNAME Record in SSL certificate

The screenshot shows the 'Create DNS records in Amazon Route 53' page in the AWS Certificate Manager console. The page displays a table of domains with columns for Domain, Validation status, Type, CNAME name, CNAME value, and Is domain in Route 53?. One domain is listed: 'peaceking.ga' with a validation status of 'Pending validation' and a CNAME record type. The 'Create records' button is visible at the bottom right.

| Domain | Validation status | Type | CNAME name | CNAME value | Is domain in Route 53? |
|--------------|--------------------|-------|---|---|------------------------|
| peaceking.ga | Pending validation | CNAME | _52239e72352318 d44d7419afa4093a 09.peaceking.ga. | _7d8ee2d0064e35 86eae960a373163 7ec.bdvkfdzfbg.ac m-validations.aws. | Yes |

Successfully CNAME Record updated in Route53 hosted Zone



Route 53 > Hosted zones > peaceking.ga

Public **peaceking.ga** Info Delete zone Test record Configure query logging

Hosted zone details Edit hosted zone

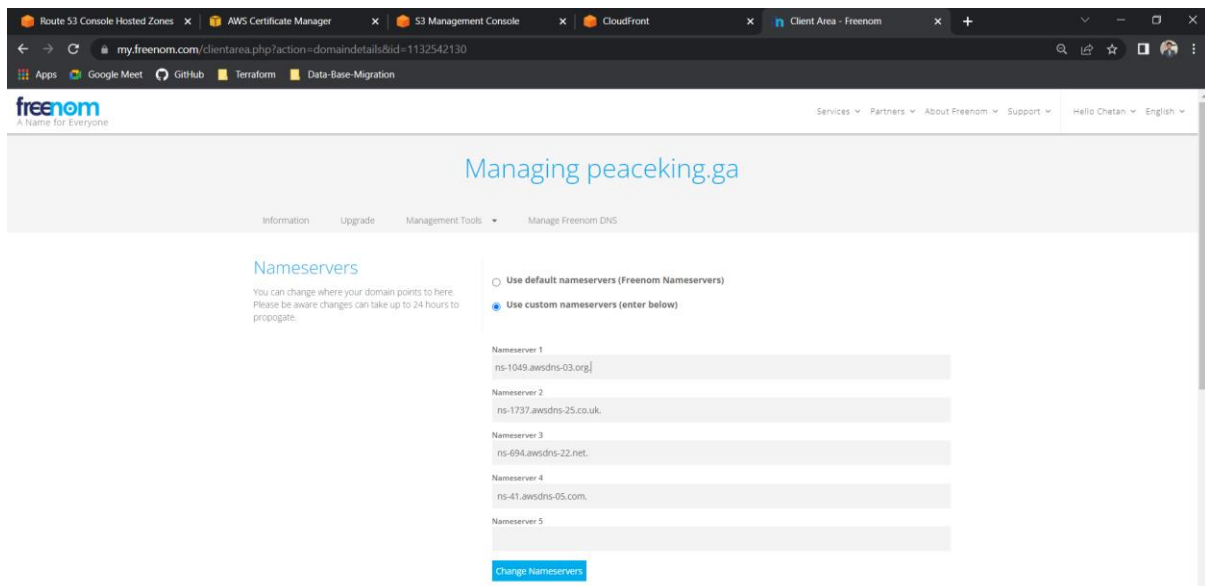
Records (3) DNSSEC signing Hosted zone tags (0)

Records (3) Info 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 policy Alias

| <input type="checkbox"/> | Record name | Type | Routin... | Differ... | Value/Route traffic to |
|--------------------------|----------------|-------|-----------|-----------|---|
| <input type="checkbox"/> | peaceking.ga | NS | Simple | - | ns-1049.awsdns-03.org. ns-1737.awsdns-25.co.uk. ns-694.awsdns-22.net. ns-41.awsdns-05.com. |
| <input type="checkbox"/> | peaceking.ga | SOA | Simple | - | ns-1049.awsdns-03.org. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400 |
| <input type="checkbox"/> | _52239e7235... | CNAME | Simple | - | _7d8ee2d0064e3586eae960a3731637ec.bdkvfdzfbg.acm-validations.aws. |

Add All Route53s NS records entry into Freenom.com purchased domain.



Route 53 Console Hosted Zones AWS Certificate Manager S3 Management Console Cloudfront Client Area - Freenom

my.freenom.com/clientarea.php?action=domaindetails&id=1132542130

Apps Google Meet GitHub Terraform Data-Base-Migration

freenom A Name for Everyone Services Partners About Freenom Support Hello Chatam English

Managing peaceking.ga

Information Upgrade Management Tools Manage Freenom DNS

Nameservers

You can change where your domain points to here. Please be aware changes can take up to 24 hours to propagate.

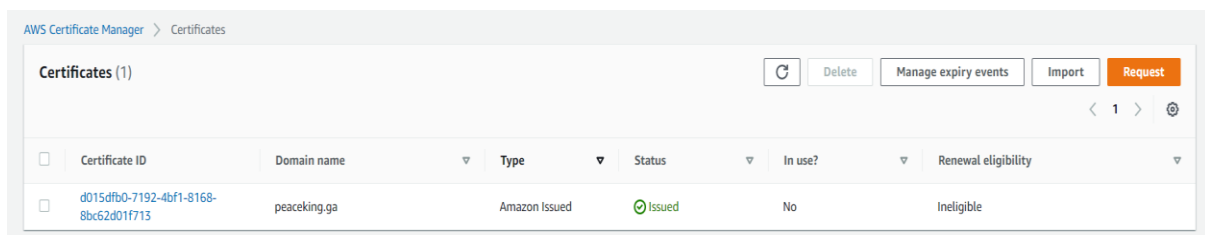
☐ Use default nameservers (Freenom Nameservers)
☒ Use custom nameservers (enter below)

Nameserver 1: ns-1049.awsdns-03.org
Nameserver 2: ns-1737.awsdns-25.co.uk.
Nameserver 3: ns-694.awsdns-22.net.
Nameserver 4: ns-41.awsdns-05.com.
Nameserver 5:

Change Nameservers

It will help to validate our SSL certificate

SSL certificate successfully validated



AWS Certificate Manager > Certificates

Certificates (1) Delete Manage expiry events Import Request

| <input type="checkbox"/> | Certificate ID | Domain name | Type | Status | In use? | Renewal eligibility |
|--------------------------|--------------------------------------|--------------|---------------|--------|---------|---------------------|
| <input type="checkbox"/> | d015dfb0-7192-4bf1-8168-8bc62d01f713 | peaceking.ga | Amazon Issued | Issued | No | Ineligible |

Now create S3 bucket in North Virginia where SSL certificate created.

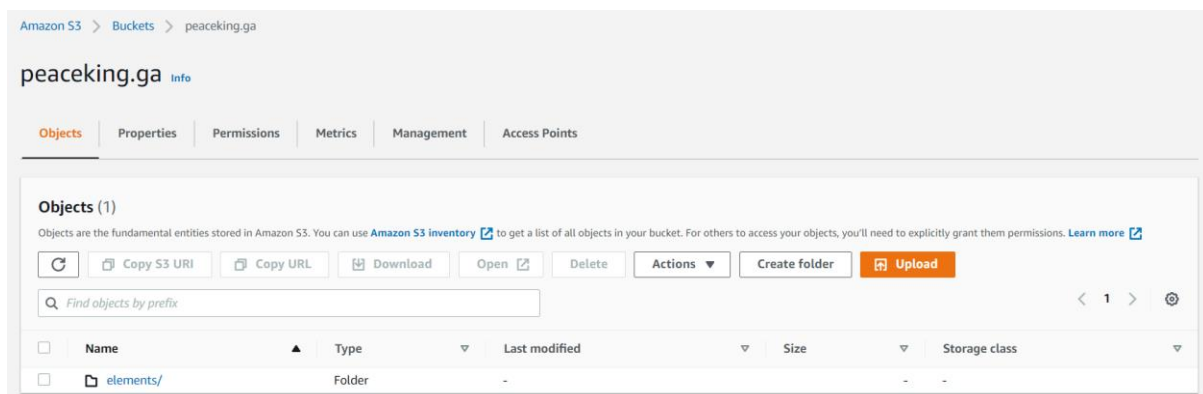
Domain Name and Bucket name should be same

Region: - North Virginia

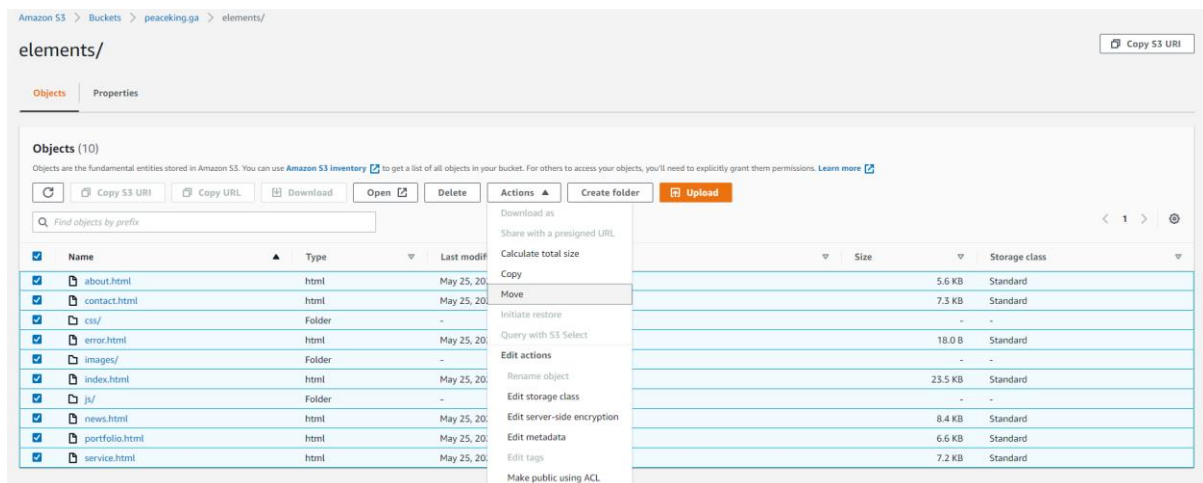
Object Ownership: - ACL Enabled

Block Public Access settings for this bucket: - Uncheck all

Upload our static website content into S3 bucket



Move all content in that directory into S3 bucket, it will help to easily get the make public.



Choose destination of our bucket

Destination

Destination type

☒ Bucket

☐ Access Point

Destination

s3://peaceking.ga

View

Browse S3

Format: s3://{bucket-name}/{prefix/}

Destination bucket name

peaceking.ga

Destination prefix

-

Destination details

The following bucket settings impact new objects stored in the specified destination.

Bucket Versioning

When enabled, multiple variants of an object can be stored in the bucket to easily recover from unintended user actions and application failures. [Learn more](#)

⚠ Disabled

Default encryption

When enabled, new objects stored in this bucket are automatically encrypted. [Learn more](#)

Disabled

Object Lock

When enabled, objects in this bucket might be prevented from being deleted or overwritten for a fixed amount of time or indefinitely. [Learn more](#)

Disabled

⚠ We recommend that you enable Bucket Versioning to help protect against unintentionally overwriting or deleting objects. [Learn more](#)

Enable Bucket Versioning

All content move into S3 bucket, now do all make them public

Amazon S3 > Buckets > peaceking.ga

peaceking.ga

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (10)

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](#)

Copy S3 URI

Copy URL

Download

Open

Delete

Find objects by prefix

Actions

Download as

Share with a presigned URL

Calculate total size

Copy

Move

Initiate restore

Query with S3 Select

Edit actions

Rename object

Edit storage class

Edit server-side encryption

Edit metadata

Edit tags

Make public using ACL

Create folder

Upload

| <input checked="" type="checkbox"/> | Name | Type | Last modified | Size | Storage class |
|-------------------------------------|----------------|--------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> | about.html | html | May 25, 2022 | 5.6 KB | Standard |
| <input checked="" type="checkbox"/> | contact.html | html | May 25, 2022 | 7.3 KB | Standard |
| <input checked="" type="checkbox"/> | css/ | Folder | - | - | - |
| <input checked="" type="checkbox"/> | error.html | html | May 25, 2022 | 18.0 B | Standard |
| <input checked="" type="checkbox"/> | images/ | Folder | - | - | - |
| <input checked="" type="checkbox"/> | index.html | html | May 25, 2022 | 23.5 KB | Standard |
| <input checked="" type="checkbox"/> | js/ | Folder | - | - | - |
| <input checked="" type="checkbox"/> | news.html | html | May 25, 2022 | 8.4 KB | Standard |
| <input checked="" type="checkbox"/> | portfolio.html | html | May 25, 2022 | 6.6 KB | Standard |
| <input checked="" type="checkbox"/> | service.html | html | May 25, 2022 | 7.2 KB | Standard |

Give **List & Read** permission to everyone (public)

Access control list (ACL)
Grant basic read/write permissions to other AWS accounts. [Learn more](#)

| Grantee | Objects | Bucket ACL |
|--|---|---|
| Bucket owner (your AWS account) Canonical ID: 49137934cc-d09d232a33e9e0685a785ac4fc-b636b904740ba3194497ce826cb8 | <input checked="" type="checkbox"/> List <input checked="" type="checkbox"/> Write | <input checked="" type="checkbox"/> Read <input checked="" type="checkbox"/> Write |
| Everyone (public access) Group: http://acs.amazonaws.com/groups/global/AllUsers | <input checked="" type="checkbox"/> List <input type="checkbox"/> Write | <input checked="" type="checkbox"/> Read <input type="checkbox"/> Write |
| Authenticated users group (anyone with an AWS account) Group: http://acs.amazonaws.com/groups/global/AuthenticatedUsers | <input type="checkbox"/> List <input type="checkbox"/> Write | <input type="checkbox"/> Read <input type="checkbox"/> Write |
| S3 log delivery group Group: http://acs.amazonaws.com/groups/s3/LogDelivery | <input type="checkbox"/> List <input type="checkbox"/> Write | <input type="checkbox"/> Read <input type="checkbox"/> Write |

Go to Cloudfront >> create distribuion

Origin Domian:- Select the bucket that we are created.

Redirect http to https

Default cache behavior

Path pattern [Info](#)

Compress objects automatically [Info](#)
☐ No
☒ Yes

Viewer

Viewer protocol policy
☐ HTTP and HTTPS
☒ Redirect HTTP to HTTPS
☐ HTTPS only

Allowed HTTP methods
☒ GET, HEAD
☐ GET, HEAD, OPTIONS
☐ GET, HEAD, OPTIONS, PUT, POST, PATCH, DELETE

Restrict viewer access
If you restrict viewer access, viewers must use CloudFront signed URLs or signed cookies to access your content.
☒ No
☐ Yes

Provide Domain Name and add SSL certificate

Settings

Price class [Info](#)
Choose the price class associated with the maximum price that you want to pay.

☒ Use all edge locations (best performance)
☐ Use only North America and Europe
☐ Use North America, Europe, Asia, Middle East, and Africa

AWS WAF web ACL - optional
Choose the web ACL in AWS WAF to associate with this distribution.

Choose web ACL

Alternate domain name (CNAME) - optional
Add the custom domain names that you use in URLs for the files served by this distribution.

peaceking.ga [Remove](#)

[Add item](#)

① To add a list of alternative domain names, use the [bulk editor](#).

Custom SSL certificate - optional
Associate a certificate from AWS Certificate Manager. The certificate must be in the US East (N. Virginia) Region (us-east-1).

peaceking.ga (d015dfb0-7192-4bf1-8168-8bc62d01f713) [Refresh](#)

[peaceking.ga](#) [Request certificate](#)

Legacy clients support - \$600/month prorated charge applies. Most customers do not need this.
CloudFront allocates dedicated IP addresses at each CloudFront edge location to serve your content over HTTPS.

In default root object put "index.html" and create

Supported HTTP versions
Add support for additional HTTP versions. HTTP/1.0 and HTTP/1.1 are supported by default.

☒ HTTP/2

Default root object - optional
The object (file name) to return when a viewer requests the root URL (/) instead of a specific object.

index.html

Standard logging
Get logs of viewer requests delivered to an Amazon S3 bucket.

☒ Off
☐ On

IPv6

☐ Off
☒ On

Description - optional

[Cancel](#) [Create distribution](#)

Cloud distribution sucesfully created and Enabled.

Route 53 Console Hosted Zones

AWS Certificate Manager

S3 Management Console

CloudFront

Client Area - Freenom

us-east-1.console.aws.amazon.com/cloudfront/v3/home?region=ap-south-1#/distributions

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S3 EC2 IAM EC2 Image Builder VPC EFS CloudWatch Simple Notification Service Lambda RDS DynamoDB CloudFront Route 53 Certificate Manager

CloudFront

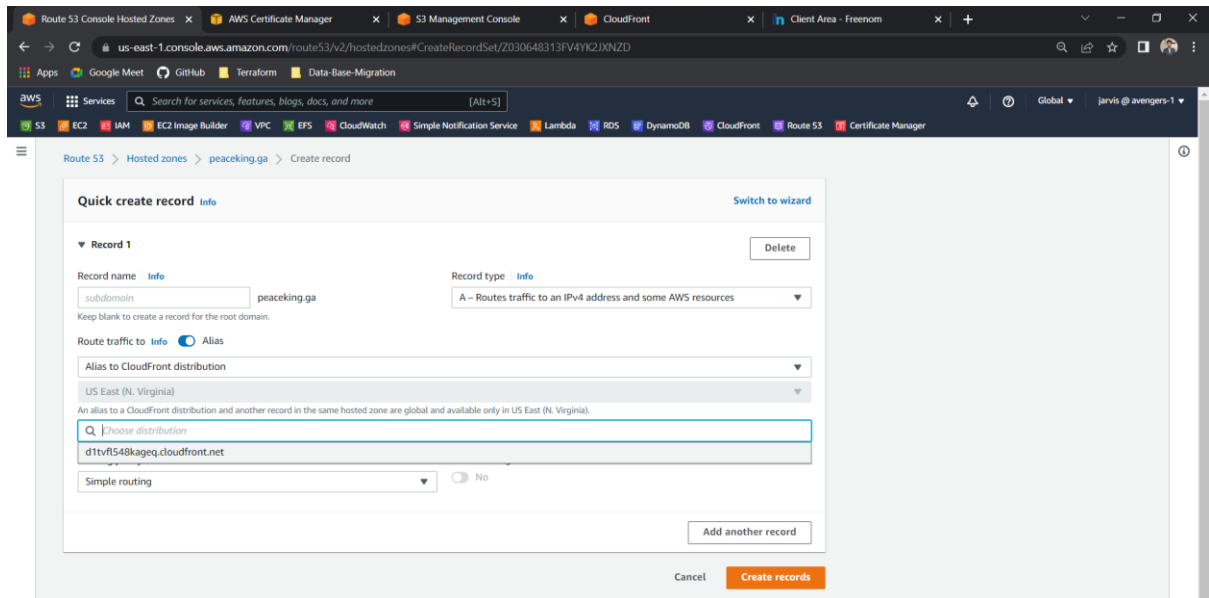
Distributions

Distributions (1) Info

[Refresh](#) [Enable](#) [Disable](#) [Delete](#) [Create distribution](#)

| <input type="checkbox"/> | ID | Description | Domain name | Alternate domain names | Origins | Status |
|--------------------------|----------------|-------------|-------------------------------|------------------------|--------------------------------|---------|
| <input type="checkbox"/> | E16VSE48IP440H | - | d1tvf1548kageq.cloudfront.net | peaceking.ga | peaceking.ga.s3.us-east-1.amaz | Enabled |

Go to Route53 and create A record by using CloudFront distribution >> save record



Our static website successfully hosted in https with SSL certificate

