

Experiment No – 7

Caching Application Data with ElastiCache, Caching with Amazon CloudFront, Caching Strategies

Objectives: Caching Application Data with ElastiCache, Caching with Amazon CloudFront, Caching Strategies

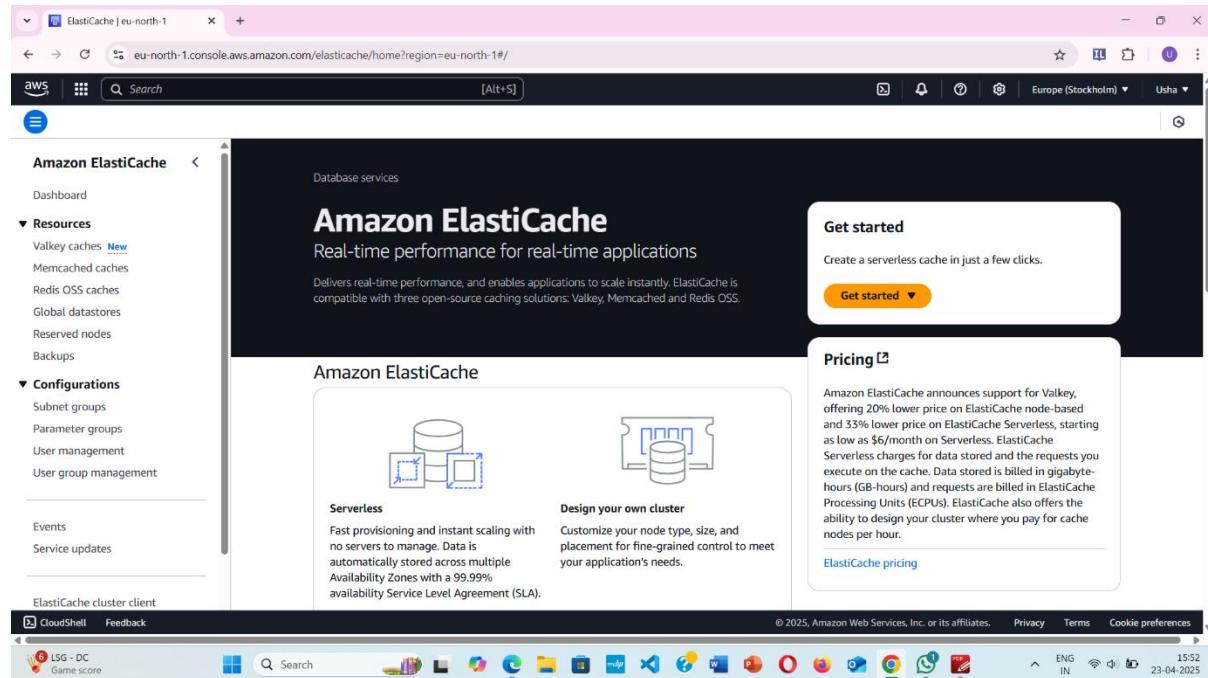
Apparatus Required: AWS Account

Pre-Requisite: AWS basics, caching basics and AWS CloudFront

Introduction: AWS CloudFront - CloudFront offers several options for streaming your media to global viewers—both pre-recorded files and live events. For video on demand (VOD) streaming, you can use CloudFront to stream in common formats such as MPEG DASH, Apple HLS, Microsoft Smooth Streaming, and CMAF, to any device.

The two main components of AWS Cloudfront are content delivery and dynamic content caching

Procedure:



On left side Resources → Redis Oss Cache

The screenshot shows the AWS ElastiCache Management Console. On the left sidebar, under the 'Resources' section, 'Redis OSS caches' is selected. The main area displays a table titled 'Redis OSS caches (1) Info'. The table has columns: Cache name, Status, Description, Engine version, Configuration, and Creation date. One entry is listed: 'rithassan' with status 'Available', engine version '7.0.7', configuration 'cache.t3.micro', and creation date 'April'. A blue banner at the top left announces 'Amazon ElastiCache announces Valkey starting as low as \$6/month'.

Continue To Redis Oss

The screenshot shows the 'Create Redis OSS cache' wizard. Step 1: Creation method. It includes three options: 'Easy create' (selected), 'Cluster cache' (selected), and 'Restore from backup'. Step 2: Cluster mode. It includes 'Enabled' (selected) and 'Disabled'. A note states: 'Enabling cluster mode supports partitioning your data across up to 500 node groups and improves performance of Redis OSS clusters. Some commands are unavailable in this mode.' Step 3: Cluster info. It includes fields for 'Name' (set to 'RITREDDIS29') and 'Description - optional'. Step 4: Location. It includes 'AWS Cloud' (selected) and 'On premises'. A note for 'On premises' says: 'Create your ElastiCache instances on an Outpost (through AWS Outposts). You need to create a subnet ID on an Outpost first.'

Selected subnets (3)

Availability Zone	Subnet ID	Subnet name	CIDR block (IPv4)
eu-north-1a	subnet-0d46995e@faecf5f9	-	172.31.16.0/20
eu-north-1b	subnet-0445eef2eab94c7d4	-	172.31.32.0/20
eu-north-1c	subnet-0afdcf3841b7e0f05	-	172.31.0.0/20

Select Engine Versions (7.0), Port Num (6379), NODE TYPE (t3 micro), SHARDS 2

Cache settings

Use the following options to configure the cluster.

Engine version
Version compatibility of the engine that will run on your nodes.
7.0

Port
The port number that nodes accept connections on.
6379

Parameter groups
Parameter groups control the runtime properties of your nodes and clusters.
default.redis7.cluster.on

Node type
The type of node to be deployed and its associated memory size.
cache.r7g.large
13.07 GiB memory - Up to 12.5 Gigabit network performance

ElastiCache Management Console

eu-north-1.console.aws.amazon.com/elasticache/home?region=eu-north-1#/redis/create?wizardOption=serverless

Create Redis OSS cache

Node type
The type of node to be displayed and its associated memory size.
cache.r7g.large
13.07 GB memory Up to 12.5 Gigabit network performance

Number of shards
Enter the number of shards in this cluster, from 1 to 500.
2

Replicas per shard
Enter the number of replicas for each shard, from 0 to 5.
1

Connectivity
Choose the IP version(s) this cluster will support. Then select an existing subnet group or create a new one.

Network type
Choose between IPv4, dual stack and IPv6
IPv4
Your resources will communicate only over the IPv4 protocol.

Subnet groups
 Choose existing subnet group Create a new subnet group

Name
RITREDDIS29-SUBNET
The name can have up to 255 characters, and must not contain spaces.

Description - optional

VPC ID
The identifier for the VPC environment where your cluster is to run.
vpc-060febfbebedf593 [Create VPC](#)

(Optional) For Multi-AZ high availability mode, choose IDs for at least two subnets from two Availability Zones in the table below.

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ElastiCache Management Console

eu-north-1.console.aws.amazon.com/elasticache/home?region=eu-north-1#/redis/create?wizardOption=serverless

Create Redis OSS cache

Network type
Choose between IPv4, dual stack and IPv6
IPv4
Your resources will communicate only over the IPv4 protocol.

Subnet groups
 Choose existing subnet group Create a new subnet group

Name
RITREDDIS29-SUBNET
The name can have up to 255 characters, and must not contain spaces.

Description - optional

VPC ID
The identifier for the VPC environment where your cluster is to run.
vpc-060febfbebedf593 [Create VPC](#)

(Optional) For Multi-AZ high availability mode, choose IDs for at least two subnets from two Availability Zones in the table below.

Selected subnets (3)

Availability Zone	Subnet ID	Subnet name	CIDR block (IPv4)
eu-north-1a	subnet-0d46995e8faecf5f9	-	172.31.16.0/20
eu-north-1b	subnet-0445eef2eab94c7d4	-	172.31.32.0/20
eu-north-1c	subnet-0afdcf3b41b7ef05	-	172.31.0.0/20

Tags for subnet group

Availability Zone placements

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GIVE REDDIS SUBNET NAME AND MANAGE THE RESOURCE

The screenshot shows the AWS ElastiCache Management Console interface. A modal window titled "Manage subnets" is open, listing three subnets under "Subnets (1/3)". The subnets are:

Availability Zone	Subnet ID	Subnet name	CIDR block (IPv4)
eu-north-1a	subnet-0d46995e8faecf5f9	-	172.31.16.0/20
eu-north-1b	subnet-0445eeff2eab94c7d4	-	172.31.32.0/20
eu-north-1c	subnet-0afdcf3841b7ef05	-	172.31.0.0/20

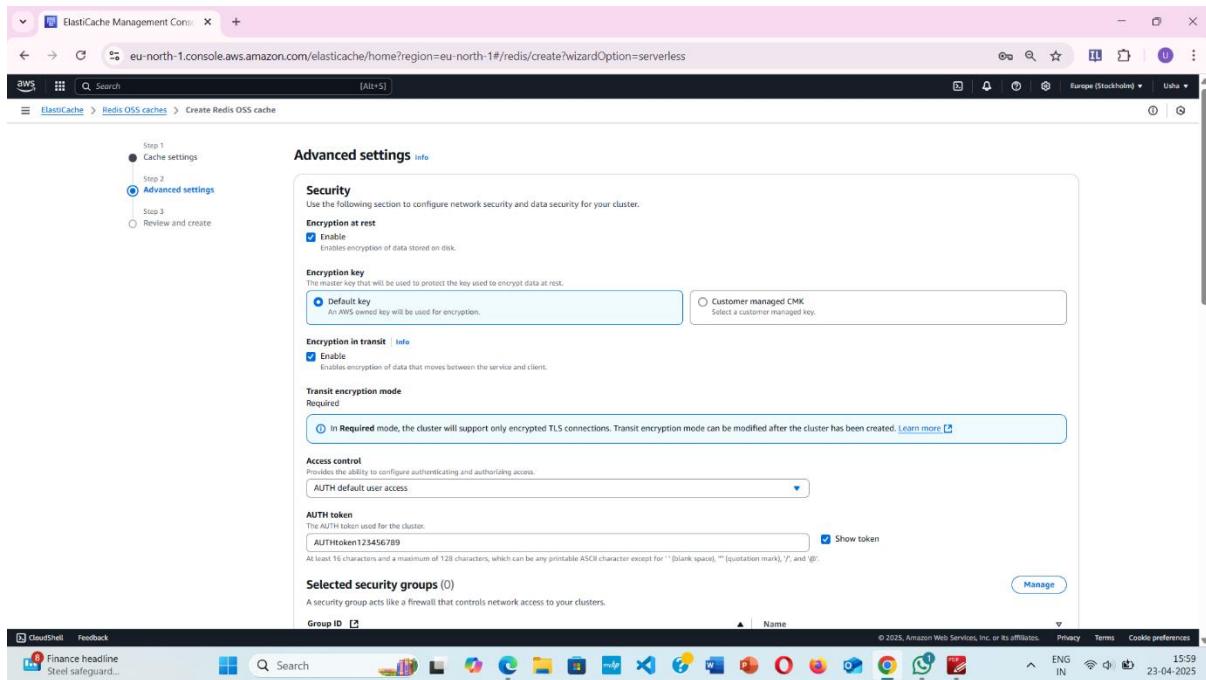
The "eu-north-1a" row has a checked checkbox next to it. Below the table, there are "Cancel" and "Choose" buttons. The main configuration page in the background shows the "Selected subnets" section with the same three subnets listed.

The screenshot shows the AWS ElastiCache Management Console interface at step 3 of the creation wizard. The "Availability Zone placements" section is active, showing the distribution of shards across availability zones. There are two shards, each with an "Equal distribution" keyspaces setting. Each shard has a "Primary" and "Replica 1" column, both of which are mapped to the "eu-north-1a" and "eu-north-1b" availability zones.

Shards	Slots/keyspaces	Primary	Replica 1
Shard 1	Equal distribution	eu-north-1a eu-north-1b	eu-north-1a eu-north-1b
Shard 2	Equal distribution	eu-north-1a eu-north-1b	eu-north-1a eu-north-1b

Below the table, there are "Cancel" and "Next" buttons. The main configuration page in the background shows the "Selected subnets" section with the three subnets listed.

NEXT



Select AUTH DEFAULT ACCESS

Access control

Provides the ability to configure authenticating and authorizing access.

AUTH default user access

AUTH token

The AUTH token used for the cluster.

AUTHtoken123456789

Show token

At least 16 characters and a maximum of 128 characters, which can be any printable ASCII character except for '' (blank space), "" (quotation mark), '/', and '@'.

AUTHtoken123456789

STEP2: GO TO EC2 IN NEW TAB AND CREATE A SECURITY GROUP

The screenshot shows the AWS Management Console with the URL eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#SecurityGroups. The left sidebar has sections for Instances, Images, Elastic Block Store, Network & Security (with Security Groups selected), and Auto Scaling. The main content area is titled "Security Groups (13) info" and lists 13 security groups. Each row in the table includes columns for Name, Security group ID, VPC ID, Description, Owner, and a link icon. A search bar at the top of the table allows filtering by attribute or tag. A large orange "Create security group" button is located in the top right of the main content area.

INBOUND RULES ADD RULE CUSTOM TCP PORT NUM 6379 (AS OUR ELASTIC STACK RUNNING OVER THERE) - SOURCE (ANYWHERE IPV4)

Create Security Group

The screenshot shows the AWS Management Console with the URL eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#CreateSecurityGroup. The left sidebar shows the "EC2" and "Security Groups" sections. The main content area is titled "Create security group info". It contains three tabs: "Basic details", "Inbound rules", and "Outbound rules". In the "Basic details" tab, there are fields for "Security group name" (set to CSREDD0529), "Description" (Allows SSH access to developers), and "VPC" (set to vpc-06bfeabfe0ef593). In the "Inbound rules" tab, there is one rule defined: "Type" is set to "Custom TCP", "Protocol" is "TCP", "Port range" is "6379", and "Source" is "Anywhere". There is also a note: "⚠️ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only." In the "Outbound rules" tab, there is one rule defined: "Type" is "All traffic", "Protocol" is "All", "Port range" is "All", and "Destination" is "Custom". The status bar at the bottom indicates "Very high UV Now".

ElastiCache Management Console | CreateSecurityGroup | EC2 | eu-north-1

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#CreateSecurityGroup:

aws Search [All+5]

EC2 > Security Groups > Create security group

Custom TCP TCP 6379 Anywhere... 0.0.0.0/0 Delete Add rule

Outbound rules Info Type info Protocol info Port range info Destination info Description - optional info All traffic All Custom 0.0.0.0/0 Delete Add rule

Tags - optional A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs. No tags associated with the resource. Add new tag You can add up to 50 more tags.

Create security group Cancel

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ElastiCache Management Console | SecurityGroup | EC2 | eu-north-1

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#SecurityGroup:groupId=sg-08d43f3c49e508352

EC2 Dashboard EC2 Global View Events Instances Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations Images AMIs AMI Catalog Elastic Block Store Volumes Snapshots Lifecycle Manager Network & Security Security Groups Elastic IPs Placement Groups Key Pairs Network Interfaces Load Balancing Load Balancers CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences ENG IN 16:03 23-04-2025

sg-08d43f3c49e508352 - CSREDDIS29

Details Security group (sg-08d43f3c49e508352 | CSREDDIS29) was created successfully Actions

Security group name	sg-08d43f3c49e508352	Security group ID	sg-08d43f3c49e508352	Description	Virtual firewall	VPC ID	vpc-56bfeba1bed0ef533
Owner	985539760735	Inbound rules count	1 Permission entry	Outbound rules count	1 Permission entry		

Inbound rules Outbound rules Sharing - new VPC associations - new Tags

Inbound rules (1)

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source	Description
-	sgr-02860a30d7bae12a	IPv4	Custom TCP	TCP	6379	0.0.0.0/0	-

Manage tags Edit inbound rules

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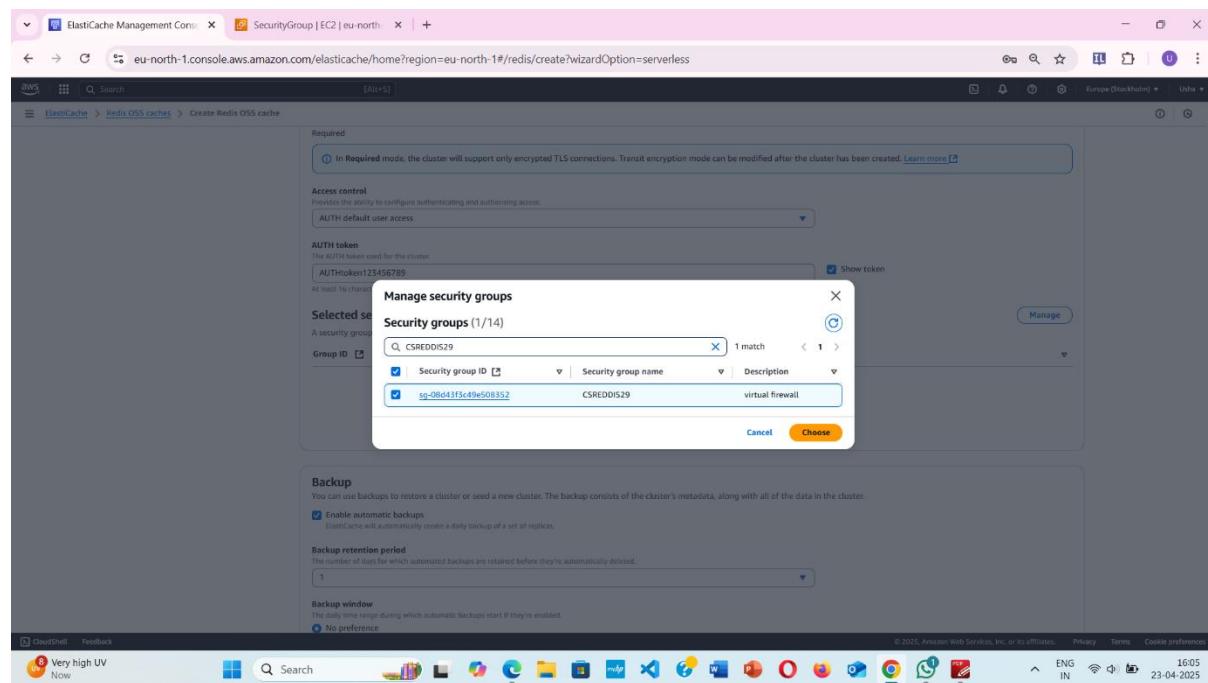
COME BACK TO ELASTIC CACHE AND SELECT THE SECURITY GROUP

Selected security groups (0) Manage

A security group acts like a firewall that controls network access to your clusters.

Group ID	Name
No selected security groups	
Add security groups by choosing the Manage button.	
Manage	

GO TO MANAGE AND REFRESH & SELECT THE SECURITY GROUP



The screenshot shows the AWS ElastiCache Management Console with the URL eu-north-1.console.aws.amazon.com/elasticache/home?region=eu-north-1#/redis/create?wizardOption=serverless. A modal window titled "Manage security groups" is displayed, listing "Security groups (1/14)". The group "CSREDDIS29" is selected and highlighted. The main wizard page shows options for "Access control" (AUTH default user access), "Auth token" (AUTHtoken1234567890), and "Backup" settings (enable automatic backups, backup retention period of 1 day, and no backup window).

ElastiCache Management Console | SecurityGroup | EC2 | eu-north-1 | +

eu-north-1.console.aws.amazon.com/elasticache/home?region=eu-north-1#/redis/create?wizardOption=serverless

ElastiCache Redis OSS caches Create Redis OSS cache

AUTHtoken123456789 [Alt+S] Show token

Selected security groups (1)

A security group acts like a firewall that controls network access to your clusters.

Group ID	Name
sg-08d43f3c49e50852	CSREDDIS29

Backup

You can use backups to restore a cluster or seed a new cluster. The backup consists of the cluster's metadata, along with all of the data in the cluster.

Enable automatic backups

ElastiCache will automatically create a daily backup of a set of replicas.

Maintenance

Configure maintenance settings for the cluster.

Maintenance window

Specify the time range (UTC) for updates such as patching an operating system, updating drivers, and installing software or patches.

No preference

Specify maintenance window

Auto upgrade minor versions

Enable

Automatically schedule cluster upgrade to the latest minor version, once it becomes available. Cluster upgrade will only be scheduled during the maintenance window.

Topic for Amazon SNS notification

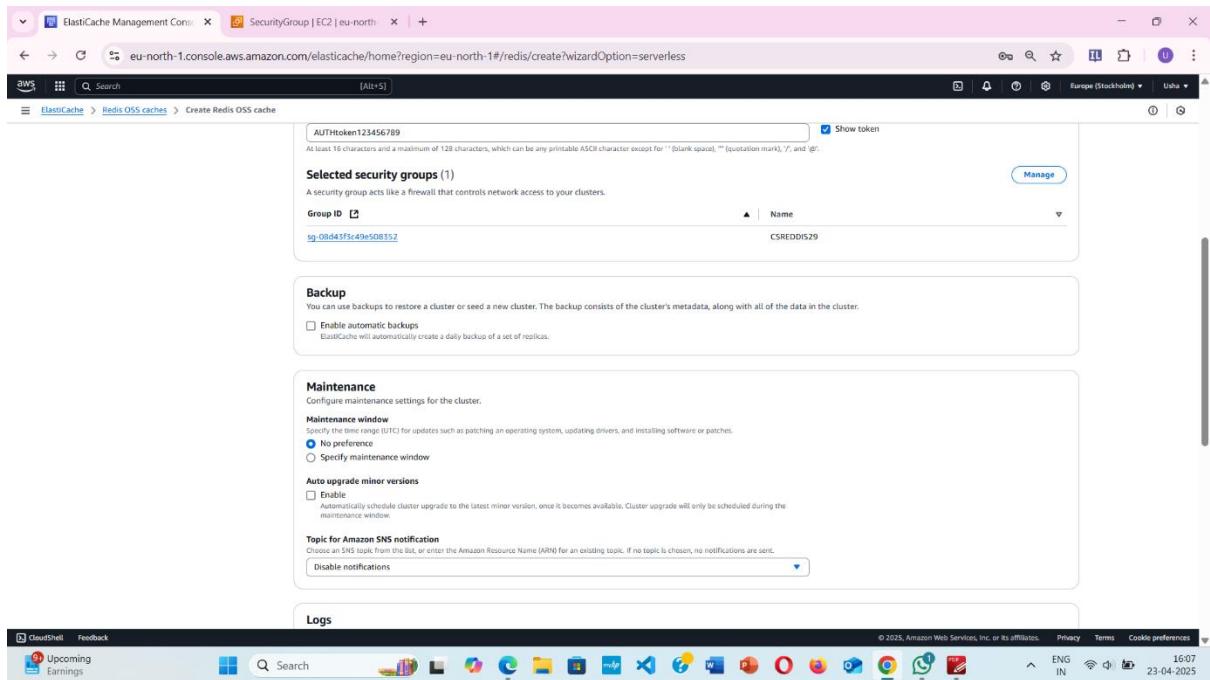
Choose an SNS topic from the list, or enter the Amazon Resource Name (ARN) for an existing topic. If no topic is chosen, no notifications are sent.

Disable notifications

Logs

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Upcoming Earnings Search ENG IN 16/07 23-04-2025



ElastiCache Management Console | SecurityGroup | EC2 | eu-north-1 | +

eu-north-1.console.aws.amazon.com/elasticache/home?region=eu-north-1#/redis/create?wizardOption=serverless

ElastiCache Redis OSS caches Create Redis OSS cache

Logs

Specify whether to provide the Redis OSS slow logs or engine logs.

Slow logs

Engine logs

Log format

Choose the format of the logs.

Text

Log destination type

Choose the destination of the logs.

CloudWatch Logs

Log destination

Select an existing log group or create a new one.

Choose existing log group

Create a new log group

Log group name

REDDIS29LOG

Tags

You can use tags to search and filter your clusters, or track your AWS costs.

No tags associated with the cluster.

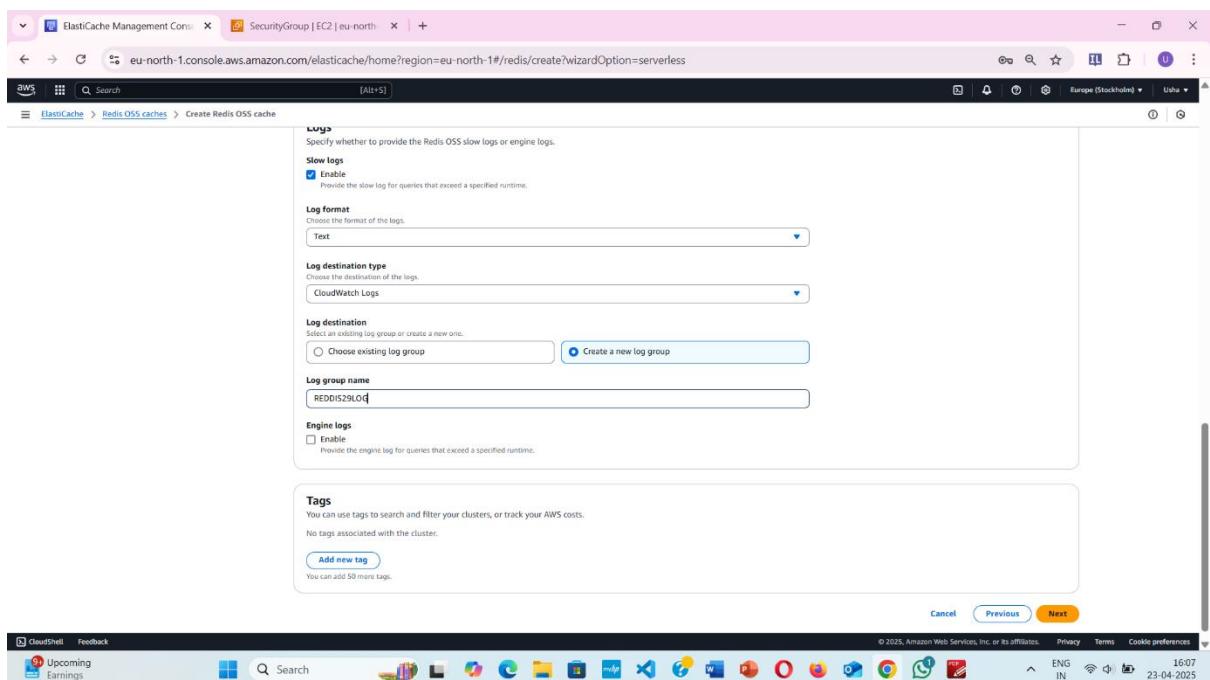
Add new tag

You can add 50 more tags.

Cancel Previous Next

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Upcoming Earnings Search ENG IN 16/07 23-04-2025



Click on create

The screenshot shows the AWS ElastiCache Management Console interface. At the top, there's a success message: "The cluster was created successfully." Below it, a promotional message for Amazon ElastiCache announces Valkey starting at \$6/month. A prominent orange button labeled "Create Valkey cache" is visible. The main area displays a table titled "Redis OSS caches (2) info". The table has columns: Cache name, Status, Description, Engine version, Configuration, and Created date. Two entries are listed:

Cache name	Status	Description	Engine version	Configuration	Created date
rithassan	Available	-	7.0.7	cache.t3.micro	April 22, 2025, 11:22:45 (UTC+05:30)
ritredis29	Creating	-	7.0.7	cache.r7g.large	April 23, 2025, 16:07:35 (UTC+05:30)

At the bottom of the interface, there's a Windows taskbar showing various open applications like File Explorer, Microsoft Edge, and others. The system tray indicates the weather as "Partly sunny" with a temperature of 33°C.

Experiment No – 08

Implementing CloudFront for Caching and Application Security.

Objectives: Implementing CloudFront for Caching and Application Security

Apparatus Required: AWS Account

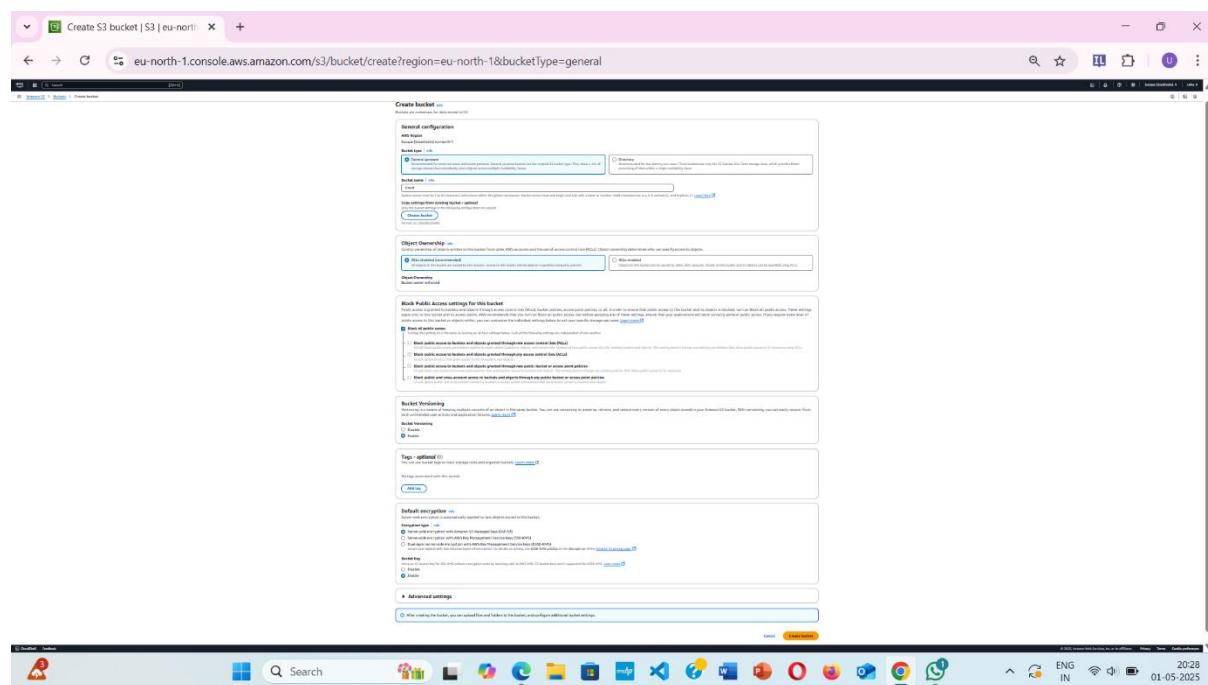
Pre-Requisite: AWS Basics, CloudFront knowledge

Introduction: Amazon CloudFront is a content delivery network (CDN) operated by Amazon Web Services. The content delivery network was created to provide a globally distributed network of proxy servers to cache content, such as web videos or other bulky media, more locally to consumers, to improve access speed for downloading the content.

Procedure:

Go to S3 & create a bucket

Give Bucket name and keep all defaults



The screenshot shows the AWS S3 console with a success message: "Successfully created bucket 'rit2025'". Below it, there's an "Account snapshot" section and a table of "General purpose buckets".

Name	AWS Region	IAM Access Analyzer	Creation date
rit2025	Europe (Stockholm) eu-north-1	View analyzer for eu-north-1	May 1, 2025, 20:29:25 (UTC+05:30)
ushacd	Europe (Stockholm) eu-north-1	View analyzer for eu-north-1	April 25, 2025, 14:23:04 (UTC+05:30)
vtu1	Europe (Stockholm) eu-north-1	View analyzer for eu-north-1	April 9, 2025, 21:00:11 (UTC+05:30)



Go to bucket created

Go to properties and host static website

Save changes

Go to object and upload a file(html)

The screenshot shows the "Upload" interface for the S3 bucket "rit2025". It includes sections for "Files and folders", "Destination", "Permissions", and "Properties".

Files and folders (1 total, 108.0 B)

Name	Type	Size
sample.html	text/html	108.0 B

Destination

s3://rit2025

Permissions

This bucket has the [bucket owner enforced](#) setting applied for Object Ownership. Use bucket policies to control access.

Properties

Specify storage class, encryption settings, tags, and more.

Storage class

Amazon S3 offers a range of storage classes designed for different use cases. Learn more or see Amazon S3 pricing.

Upload objects - S3 bucket rit2025

eu-north-1.console.aws.amazon.com/s3/upload/rit2025?region=eu-north-1&bucketType=general

Storage class [Info](#)

Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#).

Storage class	Designed for	Bucket type	Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tiering fees	Retrieval fees
<input checked="" type="radio"/> Standard	Frequently accessed data (more than once a month) with milliseconds access	General purpose	≥ 3	-	-	-	-
<input type="radio"/> Intelligent-Tiering	Data with changing or unknown access patterns	General purpose	≥ 3	-	-	Per-object fees apply for objects ≥ 128 KB	-
<input type="radio"/> Standard-IA	Infrequently accessed data (once a month) with milliseconds access	General purpose	≥ 3	30 days	128 KB	-	Per-GB fees apply
<input type="radio"/> One Zone-IA	Recreatable, infrequently accessed data (once a month) with milliseconds access	General purpose or directory	1	30 days	128 KB	-	Per-GB fees apply
<input type="radio"/> Glacier Instant Retrieval	Long-lived archive data accessed once a quarter with instant retrieval in milliseconds	General purpose	≥ 3	90 days	128 KB	-	Per-Gib fees apply
<input type="radio"/> Glacier Flexible Retrieval (formerly Glacier)	Long-lived archive data accessed once a year with retrieval of minutes to hours	General purpose	≥ 3	90 days	-	-	Per-GB fees apply
<input type="radio"/> Glacier Deep Archive	Long-lived archive data accessed less than once a year with retrieval of hours	General purpose	≥ 3	180 days	-	-	Per-GB fees apply
<input type="radio"/> Reduced redundancy	Noncritical, frequently accessed data with milliseconds access (not recommended as S3 Standard is more cost effective)	General purpose	≥ 3	-	-	-	Per-GB fees apply

Server-side encryption [Info](#)

Server-side encryption protects data at rest.

Server-side encryption

Don't specify an encryption key
The bucket settings for default encryption are used to encrypt objects when storing them in Amazon S3.

Specify an encryption key
The specified encryption key is used to encrypt objects before storing them in Amazon S3.

If your bucket policy requires objects to be encrypted with a specific encryption key, you must specify the same encryption key when you upload objects. Otherwise, uploads will fail.

Upload objects - S3 bucket rit2025

eu-north-1.console.aws.amazon.com/s3/upload/rit2025?region=eu-north-1&bucketType=general

Server-side encryption

Don't specify an encryption key
The bucket settings for default encryption are used to encrypt objects when storing them in Amazon S3.

Specify an encryption key
The specified encryption key is used to encrypt objects before storing them in Amazon S3.

If your bucket policy requires objects to be encrypted with a specific encryption key, you must specify the same encryption key when you upload objects. Otherwise, uploads will fail.

Checksums

Checksums are used for data integrity verification of new objects. [Learn more](#)

Checksum function

Checksum functions are used to calculate the checksum value. For objects smaller than 16 MB, only the full object checksum type is supported, for all checksum algorithms.

CRC64NVME (recommended)

Precalculated value - optional

When you provide a precalculated value for a single object, S3 compares it to the value it calculates using the selected checksum function. If the values don't match, the upload will fail. [Learn more](#)

Enter value
The precalculated value must be a Base64-encoded string. It must not exceed 128 characters, and can contain only letters (a-z, A-Z), numbers (0-9), forward slash (/), plus (+), or equals (=).

Tags - optional

You can use object tags to analyze, manage, and specify permissions for objects. [Learn more](#)

No tags associated with this resource.

Metadata - optional

Metadata is optional information provided as a name-value (key:value) pair. [Learn more](#)

No metadata associated with this resource.

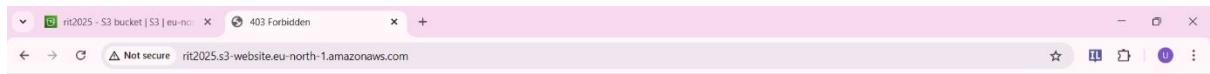
[Cancel](#) [Upload](#)

The screenshot shows the AWS S3 console interface. At the top, a green success message box displays "Upload succeeded" and "For more information, see the Files and folders table." Below this, a section titled "Upload: status" shows a summary of the upload results: "Destination s3://rit2025" with "Succeeded" (1 file, 108.0 B (100.00%)) and "Failed" (0 files, 0 B (0%)). A note below states, "After you navigate away from this page, the following information is no longer available." The "Files and folders" tab is selected, showing a table with one item: "sample.html" (text/html, 108.0 B, Status: Succeeded). The bottom of the screen shows the Windows taskbar with various pinned icons.

Access URL from your bucket → properties → static web hosting → site address

The screenshot shows the "Properties" tab of an S3 bucket named "rit2025". Under "Requester pays", it is disabled. Under "Static website hosting", it is enabled with "Bucket hosting". A callout box indicates "Bucket website endpoint copied" with the URL "http://rit2025.s3-website.eu-north-1.amazonaws.com". The bottom of the screen shows the Windows taskbar with various pinned icons.

If you try to access the URL



403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: D64V5WSS6WSGFZKR
- HostId: OwU1YpAo12wf4RyoIWPDVh2/Rd13XTXbPPA0nK+FJY0n6lMRq1FHs1E0hD8ZDBEV8tyVk3crFo=



Step 2 : CloudFront

Create a Distribution

Create a new OAI

Distributions | CloudFront | Global | 403 Forbidden

us-east-1.console.aws.amazon.com/cloudfront/v4/home?region=eu-north-1#/distributions/create

Create distribution

Distribution options Info

Choose the type of distribution that best fits your needs

Single website or app Choose if you have a single app or website.

Multi-tenant architecture - Now Choose when you have multiple domains that need to share configurations. This is a common architecture for SaaS providers.

Origin

Origin domain Choose an AWS origin, or enter your origin's domain name. Learn more

rt2025.s3.eu-north-1.amazonaws.com

This S3 bucket has static web hosting enabled. If you plan to use this distribution as a website, we recommend using the S3 website endpoint rather than the bucket endpoint. Use website endpoint

Origin path - optional Enter a URL path to append to the origin domain name for origin requests. Enter the origin path

Name Enter a name for this origin. rt2025.s3.eu-north-1.amazonaws.com

Origin access Info

Public Bucket must allow public access

Origin access control settings (recommended) Bucket must be configured to deny CloudFront access to the origin.

Legacy access identity Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Origin access identity Select an existing origin access identity (recommended) or create a new identity. rt2025.s3.eu-north-1.amazonaws.com Create new OAI

Bucket policy Update the S3 bucket policy to allow read access to the OAI. No

CloudShell Feedback Search ENG IN 2043 01-05-2025

Distributions | CloudFront | Global | 403 Forbidden

us-east-1.console.aws.amazon.com/cloudfront/v4/home?region=eu-north-1#/distributions/create

Create distribution

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

Cache key and origin requests We recommend using a cache policy and origin request policy to control the cache key and origin requests.

Cache policy and origin request policy (recommended) Legacy cache settings

Cache policy Choose an existing cache policy or create a new one. CachingOptimized Policy with no expiration. Supports Gzip and Brotli compression. Recommended for S3 Create cache policy View policy

Origin request policy - optional Choose an existing origin request policy or create a new one. Select origin policy Create origin request policy

Response headers policy - optional Choose an existing response headers policy or create a new one. Select response headers Create response headers policy

Function associations - optional Info

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Distributions | CloudFront | Global | 403 Forbidden

us-east-1.console.aws.amazon.com/cloudfront/v4/home?region=eu-north-1#/distributions/create

Function associations - optional Info

Choose an edge function to associate with this cache behavior, and the CloudFront event that invokes the function.

Function type	Function ARN / Name	Include body
Viewer request	No association	
Viewer response	No association	
Origin request	No association	
Origin response	No association	

Web Application Firewall (WAF) Info

Enable security protections
Keep your application secure from the most common web threats and security vulnerabilities using AWS WAF. Blocked requests are stopped before they reach your web servers.

Do not enable security protections
Select this option if your application does not need security protections from AWS WAF.

Included security protections

- Protect against the most common vulnerabilities found in web applications.
- Protect against malicious actors discovering application vulnerabilities.
- Block IP addresses from potential threats based on Amazon internal threat intelligence.

Price estimate

This AWS WAF configuration is estimated to cost \$14 for 10 million requests/month

Settings

Anycast static IP list - optional Info

Deliver traffic from a small set of IP addresses

There are no Anycast static IP lists available

[Create an Anycast static IP list](#)

There are no Anycast static IP lists available

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

Alternate domain name (CNAME) - optional

Add the custom domain names that you use in URLs for the files served by this distribution.

[Add Item](#)

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).

[Choose certificate](#)

[Request certificate](#)

Supported HTTP versions

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

HTTP/2

HTTP/3

Default root object - optional

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

IPv6

Off

On

Description - optional

Standard logging Info

Additional charges may apply. See Info for more details.

Log delivery

Get logs of viewer requests to CloudWatch, Amazon S3 or Firehose

Off

On

Go to the link (Distribution Domain Name)

The screenshot shows the AWS CloudFront console with a success message: "Successfully created new distribution." The distribution is named "ERYWLUOJUMJFD" and is set to "Standard". The "General" tab is selected, showing details like the distribution domain name (clifhew01fzefg.cloudfront.net), ARN, and last modified status (Deploying). The "Settings" section includes fields for Description, Price class (Use all edge locations (best performance)), and Supported HTTP versions (HTTP/2, HTTP/1.1, HTTP/1.0). The "Alternate domain names" and "Logging" sections are also visible.



S3 Result

The screenshot shows the AWS S3 console with a 403 Forbidden error page. The URL is "d3fhvlw01fzefg.cloudfront.net". The error message is: "This XML file does not appear to have any style information associated with it. The document tree is shown below." Below the message is the XML code: <Error><Code>AccessDenied</Code><Message>Access Denied</Message></Error>.



Cloud Front Result