AWS CloudFront

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1 What is CloudFront?

CloudFront

CloudFront

- CloudFront is the **Content Delivery Network (CDN)** of AWS.

- Basically, it is a globally distributed network located on different geographical places.

CloudFront

What is CloudFront?

- The aim of this service is to **provide faster distribution** to the dynamic or the static web contents.

- World-wide distributed data centers which are called **edge locations** are the backbone of CloudFront.
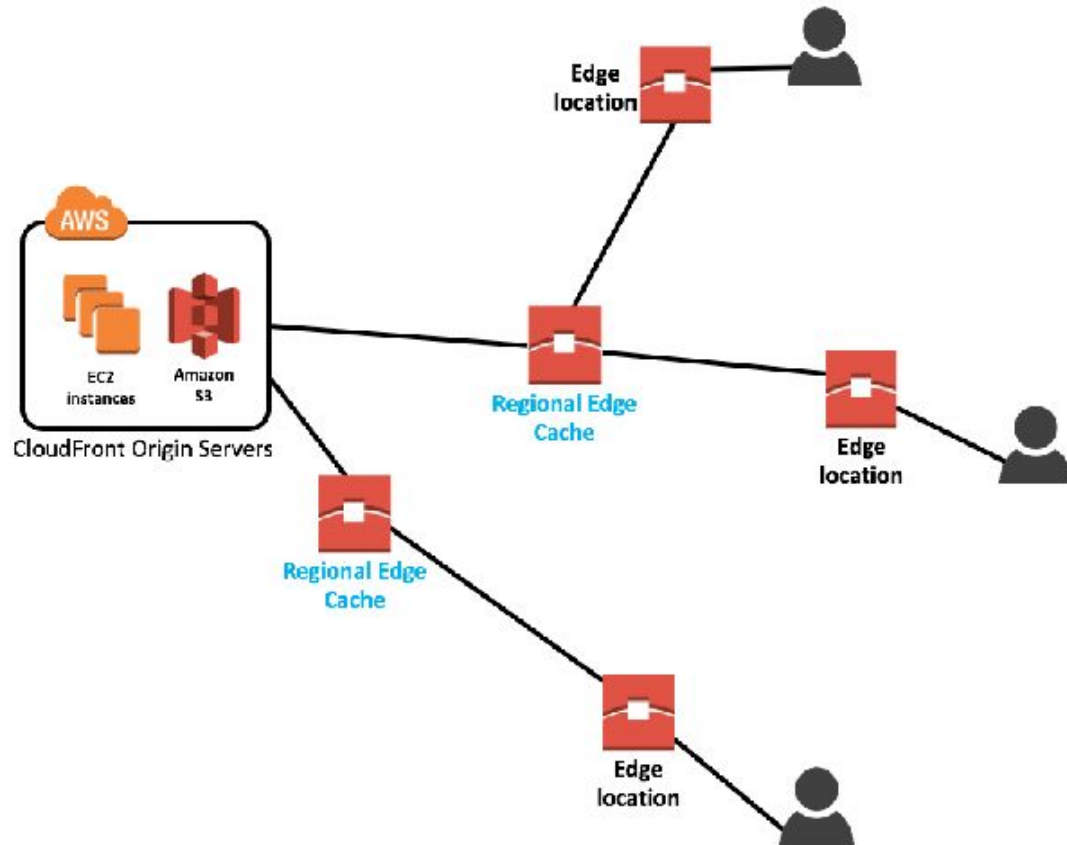
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2 CloudFront Infrastructure

CloudFront

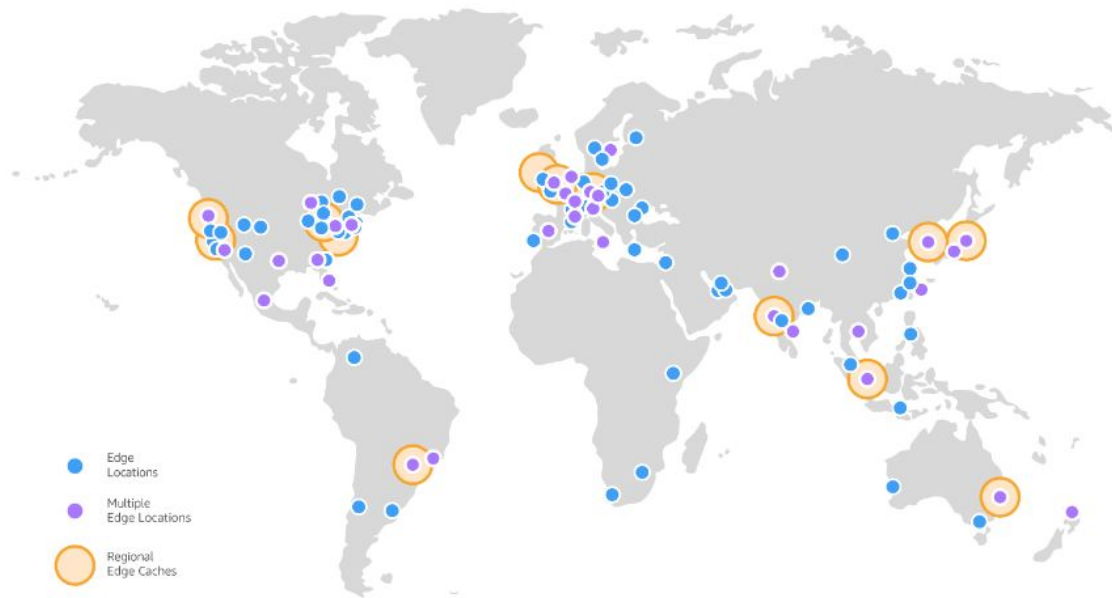## CloudFront Infrastructure

- AWS CloudFront has a world-wide network of **600+ Points of Presence (PoP)*:**

  - **500+ Edge Locations**
  - **13 Regional Edge Caches**

*as of Apr 2024.

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CloudFront
CloudFront Infrastructure

Edge Locations

Multiple Edge Locations

Regional Edge Caches

- These facilities are spread over 100+ cities across 50 countries*.

  * Apr 2024

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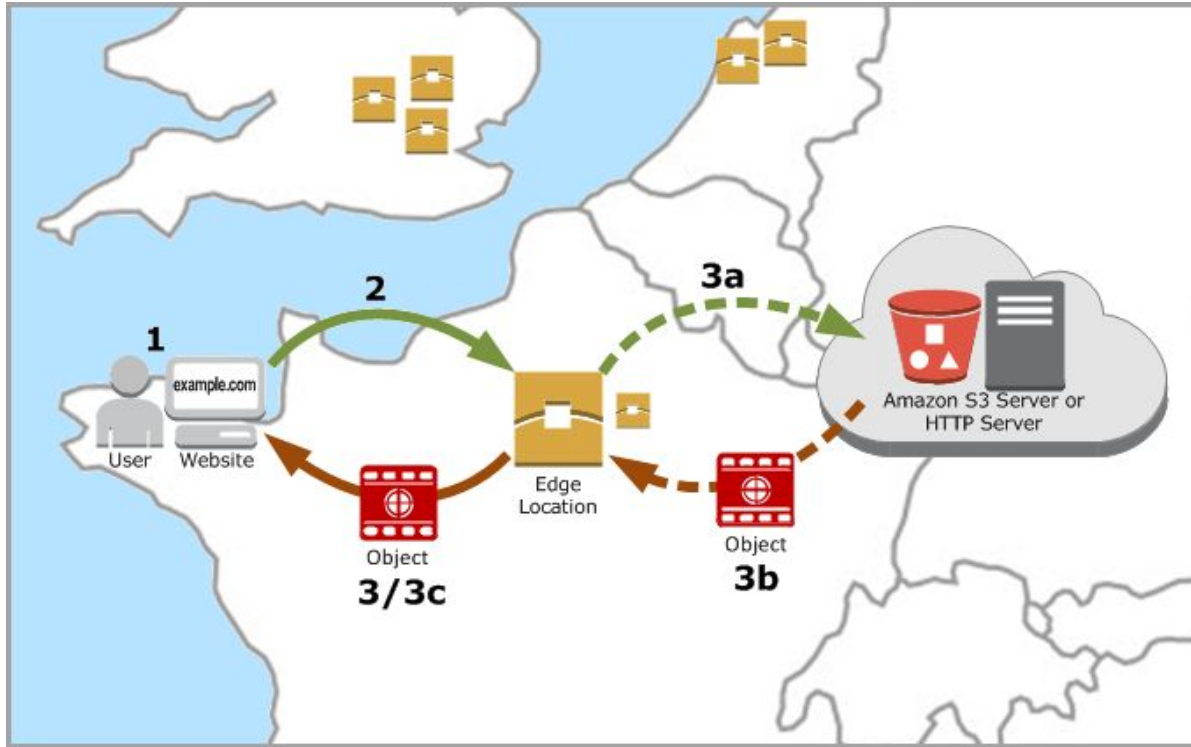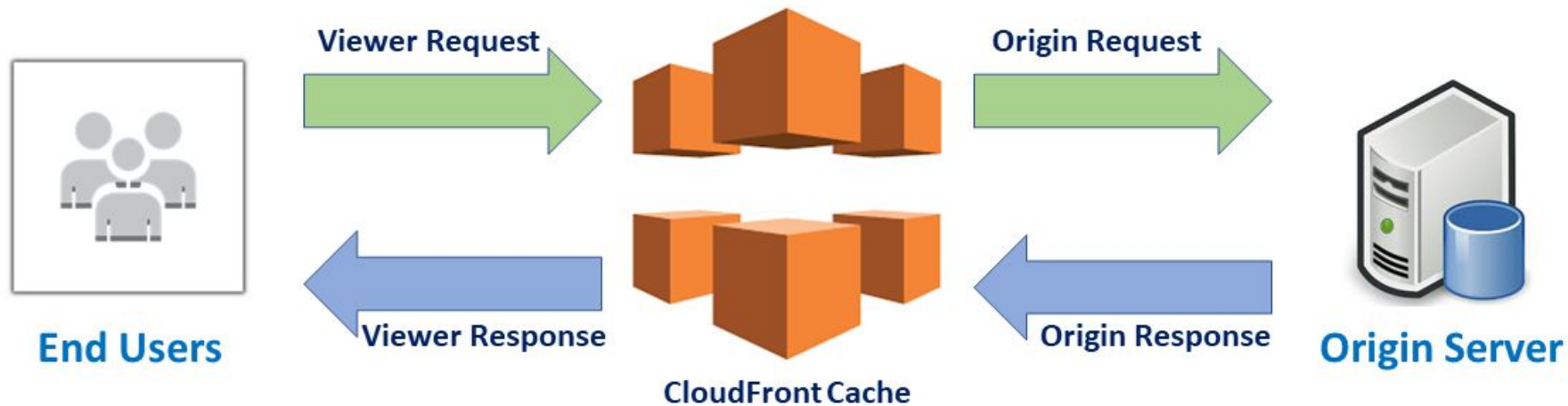# How does CloudFront work?

CloudFront

How does it work?

CloudFront
How does it work?

Viewer Request → | CloudFront Cache | → Origin Request

End Users ← Viewer Response | CloudFront Cache | ← Origin Response ← Origin Server

CloudFront

Origins

- AWS Origin
  - Elastic Load Balancer
  - Mediastore Container
  - Mediapackage Container
  - API Gateway
  - S3 Bucket (Enables OAC/OAI-Origin Access Control/Identity)

- Custom Origin (HTTP)
  - EC2 Instance
  - Any HTTP server
  - S3 Static Website

OAC
/OAI

Cloudfront CDN

S3 Bucket

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CloudFront
Signed URLs & Signed Cookies

- Signed URLs
  - Restrict access to individual files
  - For clients that doesn't support cookies

- Signed Cookies
  - Provide access to multiple restricted files
  - No changes in your current URL

Signed URLs
Signed Cookies

Cloudfront CDN

4 CloudFront Pricing

CloudFront
Pricing

Included in Always Free Tier

- 1 TB of data transfer out to the internet per month

- 10,000,000 HTTP or HTTPS Requests per month

- 2,000,000 CloudFront Function invocations per month

- 2,000,000 CloudFront KeyValueStore reads per month

- Free SSL certificates

- No limitations, all features available
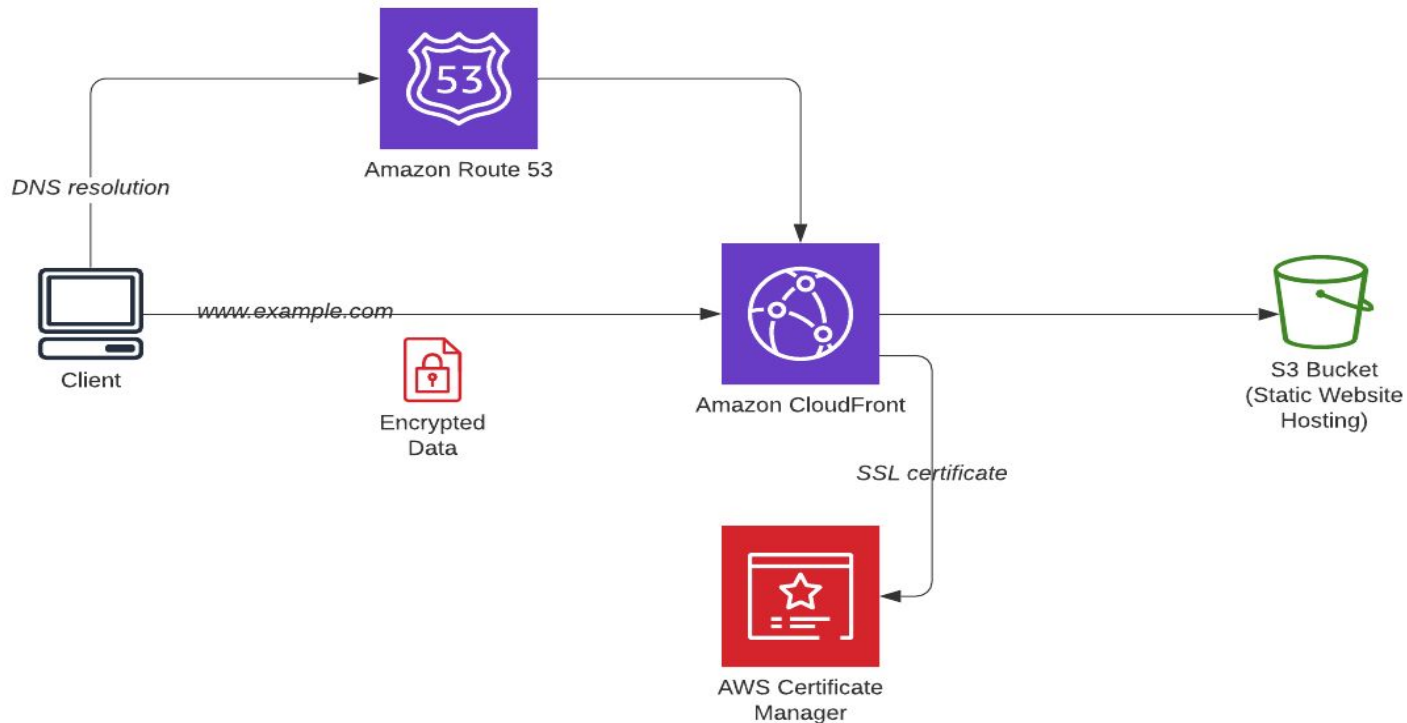
CloudFront
Pricing

- Pricing varies depending on **region** and **usage**. Thus, to be more cost effective setup your configuration regarding your goal, methods, end users and geographic locations.

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CloudFront
Hands on Scenario

THANKS!

Any questions?

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