AWS CloudFront

Table of Contents

▶ What is CloudFront?

▶ CloudFront Infrastructure

▶ How Does CloudFront Work?

▶ CloudFront Pricing

▶ Hands on Scenario

1

What is CloudFront?

CloudFront

What is CloudFront?

CloudFront

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

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

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CloudFront

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

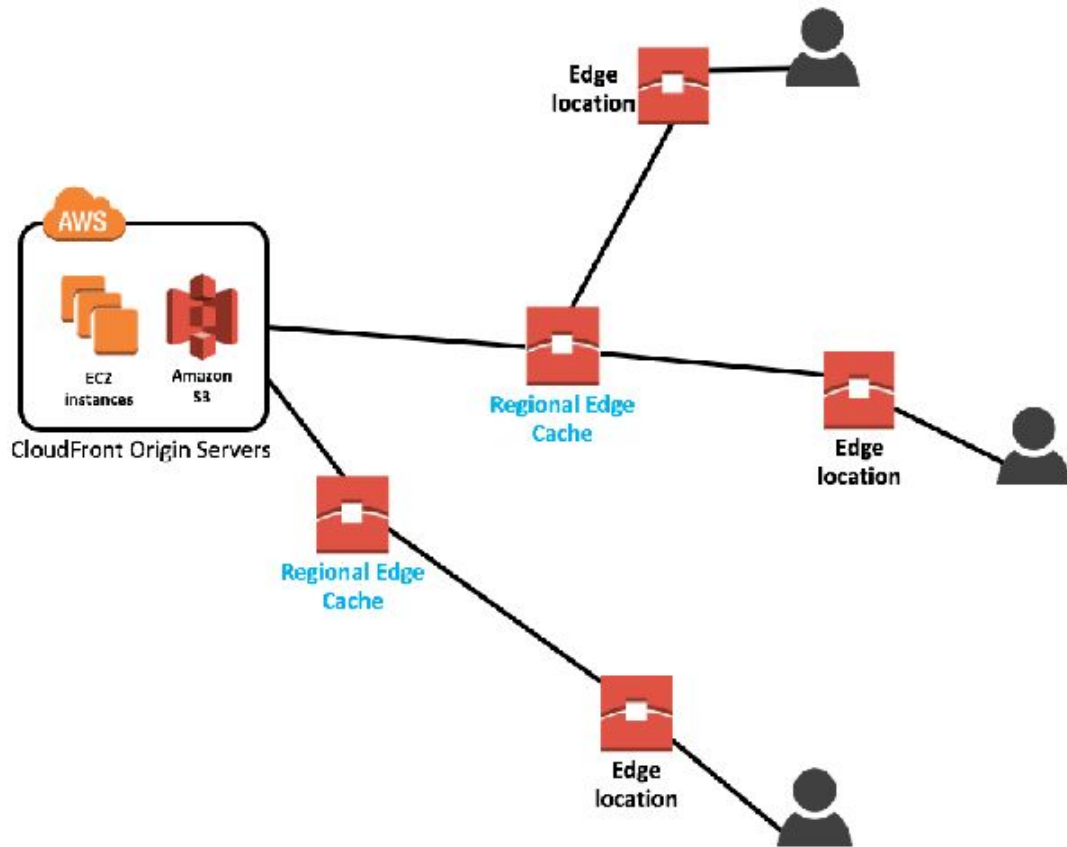- World-wide distributed data centers which are called **edge locations** are the backbone of CloudFront.

2 CloudFront Infrastructure
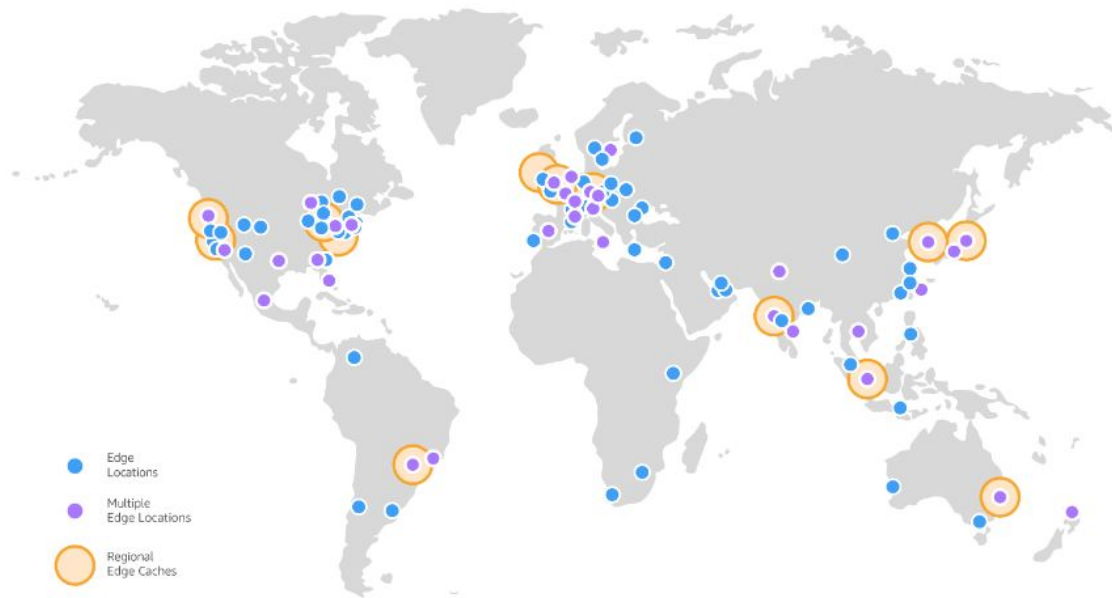
CloudFront

CloudFront Infrastructure

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

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

*as of Jan 2024.

AWS

EC2 instances   Amazon S3

CloudFront Origin Servers

Edge location

Regional Edge Cache

Edge location

Regional Edge Cache

Edge location

CloudFront

CloudFront Infrastructure

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

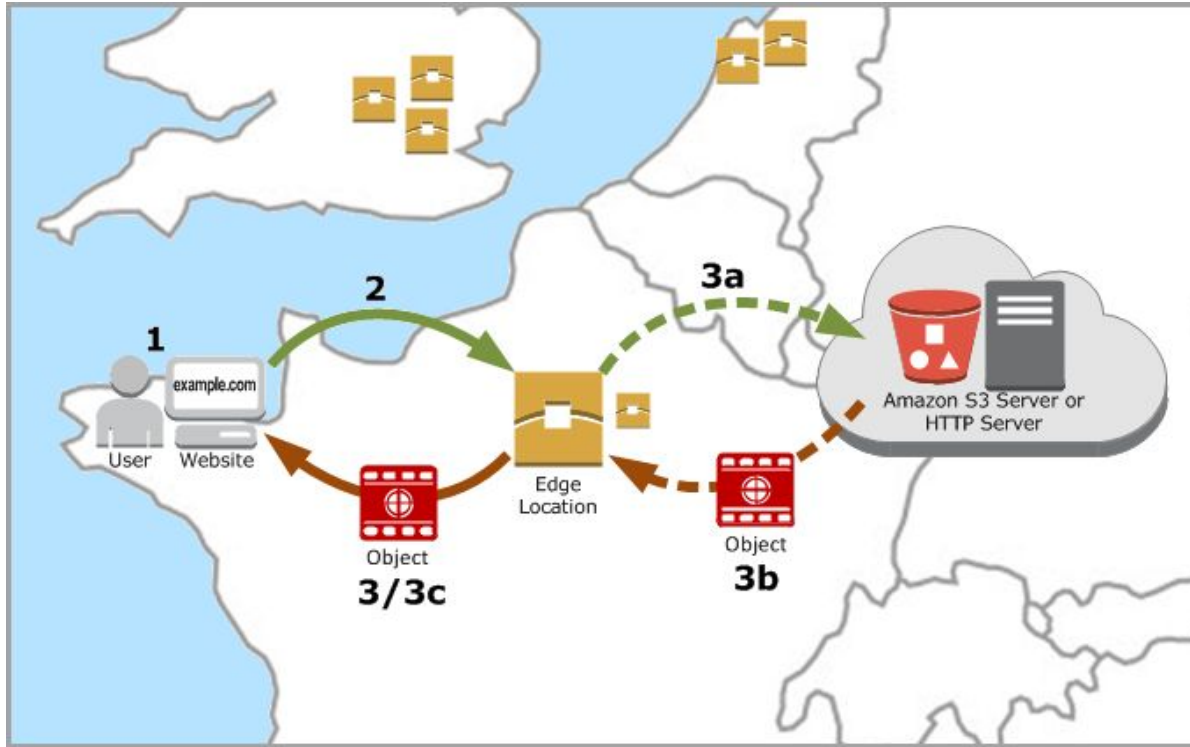* Jan 2024

How does CloudFront work?

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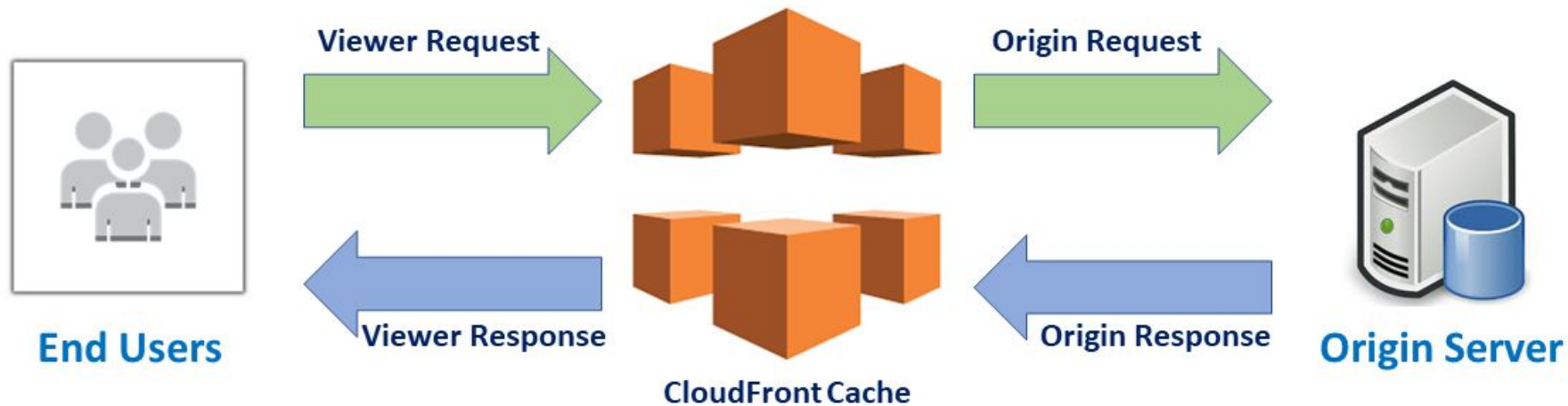
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CloudFront

How does it work?

CloudFront

How does it work?

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

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

X

Signed URLs
Signed Cookies

Cloudfront CDN

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4 CloudFront Pricing

CloudFront
Pricing

Free Tier

Always free

1 TB of data transfer out
10,000,000 HTTP or HTTPS Requests
2,000,000 CloudFront Function Invocations

Each month

CloudFront Savings Bundle

Amazon CloudFront charges traffic served based on the following dimensions: The CloudFront Security Savings Bundle is a flexible self-service pricing plan that helps you save up to 30% on your CloudFront bill in exchange for a monthly spend commitment for a one-year term. This savings is not limited to data delivered by CloudFront but applies to all CloudFront usage types, including CloudFront Functions and Lambda@Edge. The CloudFront Security Savings Bundle also includes free AWS Web Application Firewall (WAF) usage up to 10% of your committed amount.

Custom Pricing

Custom Pricing

Custom discounted pricing is available for customers willing to commit to a minimum of 10 TB of data transfer per month for 12 months or longer. Discounts vary based on the amount of the commitment. Interested in signing up for discounted pricing?
Contact Us

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CloudFront
Pricing

Edge Locations

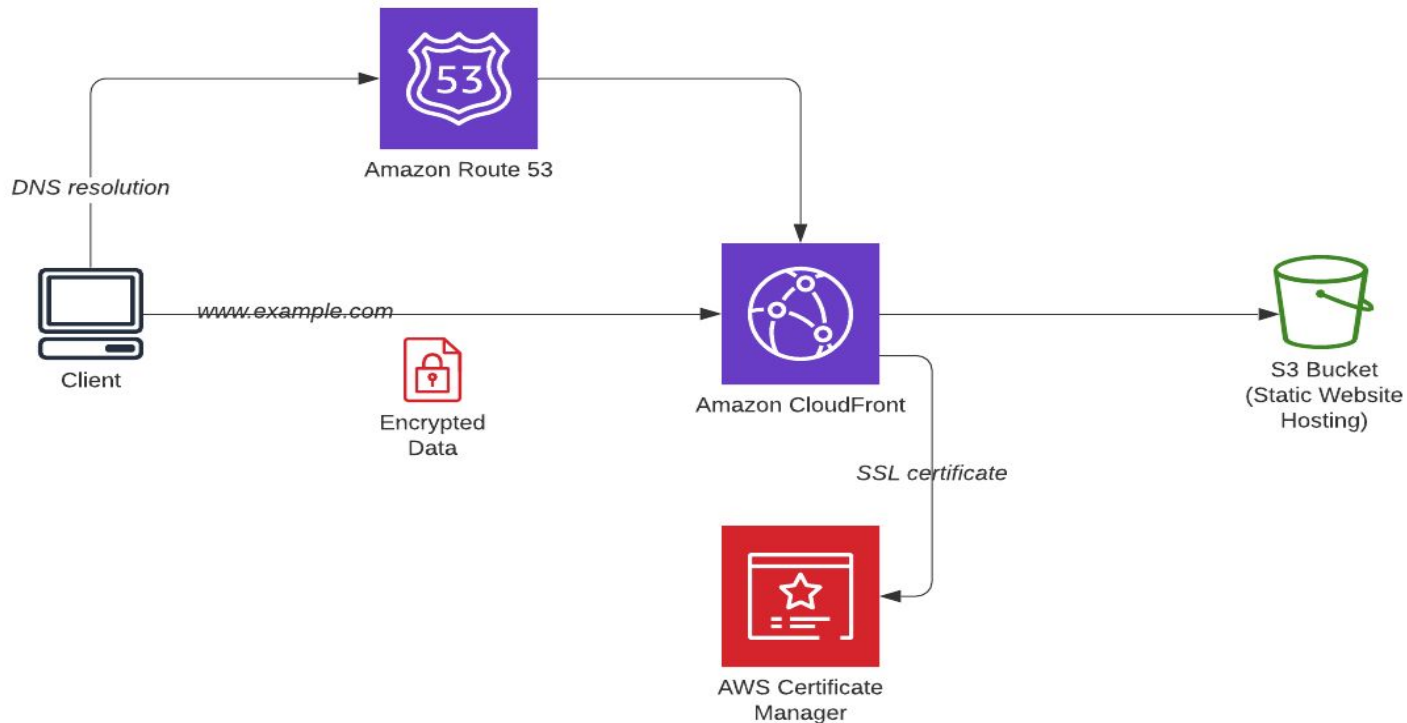Multiple Edge Locations

Regional Edge Caches

- 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

Amazon Route 53

DNS resolution

Client

www.example.com

Encrypted Data

Amazon CloudFront

SSL certificate

S3 Bucket (Static Website Hosting)

AWS Certificate Manager

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THANKS!

Any questions?

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