WHIZLABS

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Introduction to Amazon CloudFront

Level: **Intermediate**

Amazon S3 | Amazon CloudFront | Amazon Web Services

Required Points	10
Lab Duration	01:30:00
Average Start time	Less than a minute

Start Lab →

Need help?

- How to use Hands on Lab
- Troubleshooting Lab
- FAQs

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Lab Overview

Cloud Architect, Cloud Network Engineer

Storage, Networking

Lab Details

1. Welcome to this comprehensive lab that will guide you through the process of creating an Amazon CloudFront distribution, which will allow you to distribute a publicly accessible image file from an Amazon S3 bucket.

2. This tutorial will explain how to utilize custom error pages and geo-restriction. It will guide you through the process of configuring these features.
3. Duration: **1 hour 30 minutes**
4. AWS Region: **US East (N. Virginia) us-east-1**

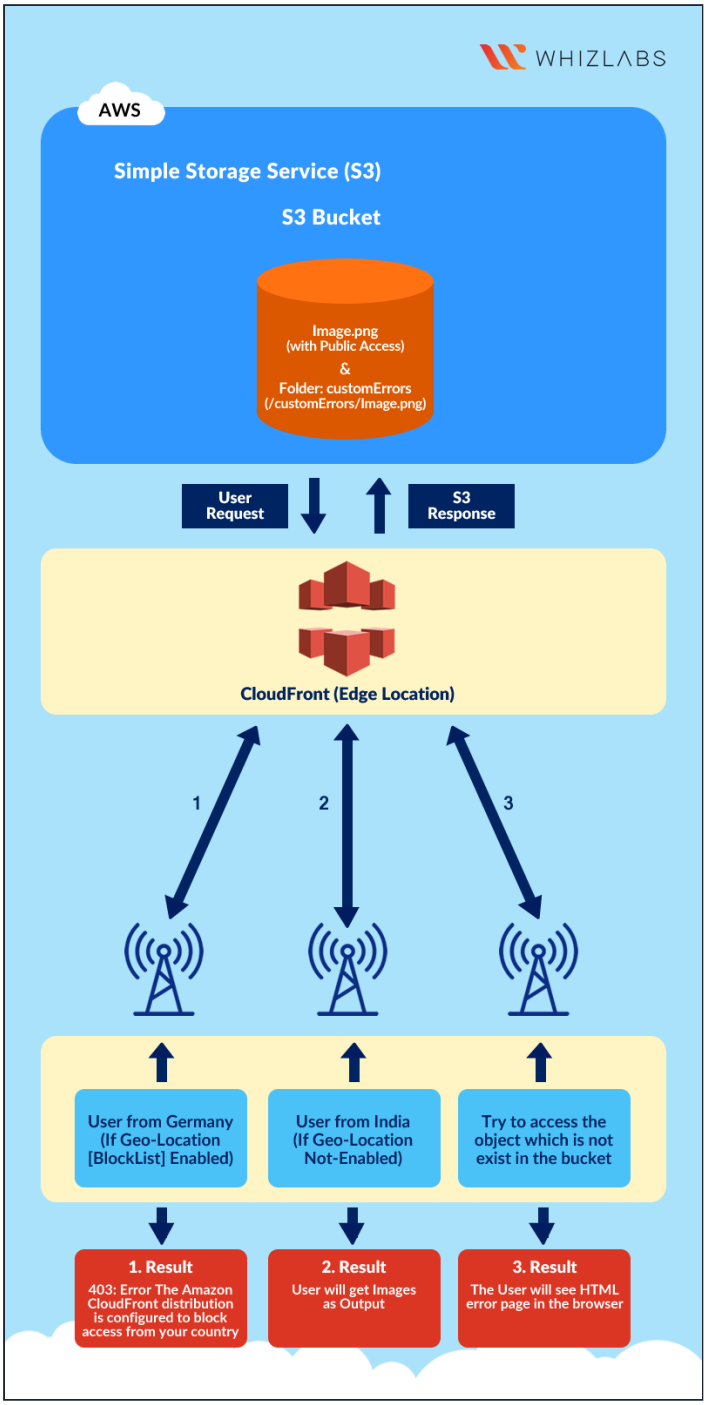
Introduction

What is CloudFront?

- Amazon CloudFront is a content delivery network (CDN) offered by AWS.
- CDN provides a globally-distributed network of proxy servers which cache content , i.e., web videos or other bulky media, more locally to consumers, thus improving access speed for downloading the content.
- CloudFront service works on a pay-as-you-go basis.
- CloudFront works with origin servers like S3, EC2 where the content is stored and is pushed out to multiple CloudFront servers as content is requested.
- When CloudFront is enabled, the content is stored on the main S3 server.
- Copies of this content are created on a network of servers around the world called CDN.
- Each server within this network is called an Edge server, which will only have a copy of your content.
- When a request is made to the content, the user is provided from the nearest edge server.
- CloudFront has features similar to dynamic site acceleration, a method used to improve online content delivery.
- CloudFront accelerates the delivery of dynamic content by moving it closer to the user to minimize internet hops involved in retrieving the content.
- CloudFront's Web distribution supports "**Progressive**" download i.e., data from S3 is cached and then streamed without disruptions.
- Due to that, the user cannot move front or back in the video i.e., the video is processed bit by bit.
- CloudFront's Web distribution support "**Streaming**" allows users to directly watch without any download.
- Due to that, the user can move front or back in the video, the latency is based on the size of the file and the customer's Internet bandwidth.

- This service is beneficial for those developing a website that distributes a lot of content and needs to scale-up.
- It helps reduce costs and improve the performance of a website by providing high data transfer speeds and low latency.

Architecture Diagram



Task Details

1. Sign in to AWS Management Console
2. Create an S3 Bucket

3. Upload a file to the S3 bucket.
4. Create Custom Error pages.
5. Make the objects public.
6. Create a new Amazon CloudFront distribution.
7. Accessing images through Cloudfront.
8. Configuring custom Error Page
9. Restricting the Geographic Distribution of your content.
10. Validation of the lab.

Launching Lab Environment

1. To launch the lab environment, Click on the **Start Lab** button.
2. Please wait until the cloud environment is provisioned. It will take less than a minute to provision.
3. Once the Lab is started, you will be provided with **IAM user name**, **Password**, **Access Key**, and **Secret Access Key**.

Note : You can only start one lab at any given time