

**Bucket Policy** - A bucket policy is a resource-based AWS Identity and Access Management (IAM) policy. You add a bucket policy to a bucket to grant other AWS accounts or IAM users access permissions for the bucket and the objects in it. Object permissions apply only to the objects that the bucket owner creates.

**Access Control Lists** - Amazon S3 access control lists (ACLs) enable you to manage access to buckets and objects. Each bucket and object has an ACL attached to it as a subresource. It defines which AWS accounts or groups are granted access and the type of access. When a request is received against a resource, Amazon S3 checks the corresponding ACL to verify that the requester has the necessary access permissions.

When you create a bucket or an object, Amazon S3 creates a default ACL that grants the resource owner full control over the resource.

**Origin** - An origin is the location where content is stored, and from which CloudFront gets content to serve to viewers.

**Edge Location** - CloudFront delivers your content through a worldwide network of data centers called edge locations. When a user requests content that you're serving with CloudFront, the request is routed to the edge location that provides the lowest latency (time delay), so that content is delivered with the best possible performance.

- If the content is already in the edge location with the lowest latency, CloudFront delivers it immediately.
- If the content is not in that edge location, CloudFront retrieves it from an origin that you've defined—such as an Amazon S3 bucket, a Media Package channel, or an HTTP server (for example, a web server) that you have identified as the source for the definitive version of your content.

**Distribution** - You create a CloudFront distribution to tell CloudFront where you want content to be delivered from, and the details about how to track and manage content delivery.

### Amazon Simple Storage Service (Amazon S3)

Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. This means customers of all sizes and industries can use it to store and protect any amount of data for a range of use cases, such as data lakes, websites, mobile applications, backup and restore, archive, enterprise applications, IoT devices, and big data analytics.

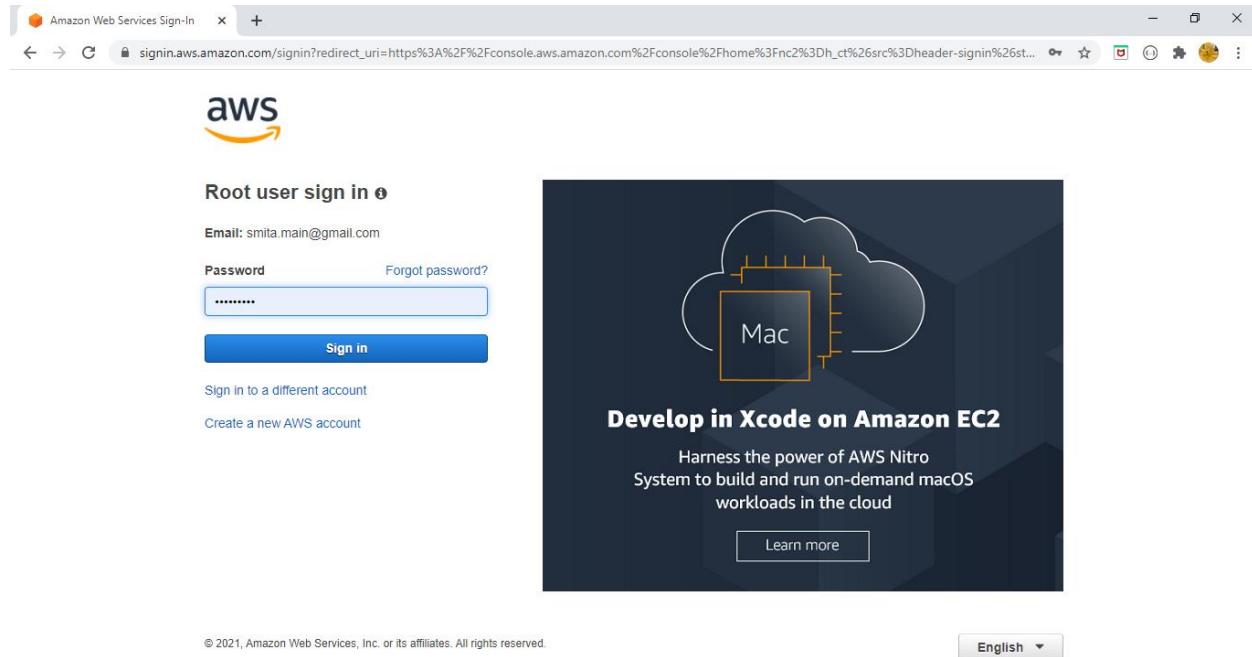
To create a S3 bucket I have followed below steps :-

I have created a new free tier account.

Login into aws account by providing username and password.

The screenshot shows the AWS Sign-in page. On the left, there's a 'Sign in' form with two radio button options: 'Root user' (selected) and 'IAM user'. Below the radio buttons is a field for 'Root user email address' containing 'smita.main@gmail.com'. A blue 'Next' button is at the bottom of the form. To the right of the form is a dark blue promotional banner for 'Develop in Xcode on Amazon EC2'. It features a graphic of a Mac computer inside a cloud, with the text 'Develop in Xcode on Amazon EC2' and 'Harness the power of AWS Nitro System to build and run on-demand macOS workloads in the cloud'. A 'Learn more' button is at the bottom of the banner. The browser's address bar shows the URL: [https://signin.aws.amazon.com/signin?redirect\\_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3Fnc%23Dh\\_ct%26src%3Dheader-signin%26st...](https://signin.aws.amazon.com/signin?redirect_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3Fnc%23Dh_ct%26src%3Dheader-signin%26st...)

The screenshot shows the AWS Sign-in page after a security check. On the left, there's a 'Security check' section with a note about verifying account holders are real people. Below it is a CAPTCHA input field containing 'mcw4wd' and a 'Submit' button. To the right of the CAPTCHA is a dark blue promotional banner for 'Develop in Xcode on Amazon EC2'. It features a graphic of a Mac computer inside a cloud, with the text 'Develop in Xcode on Amazon EC2' and 'Harness the power of AWS Nitro System to build and run on-demand macOS workloads in the cloud'. A 'Learn more' button is at the bottom of the banner. The browser's address bar shows the URL: [https://signin.aws.amazon.com/signin?redirect\\_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3Fnc%23Dh\\_ct%26src%3Dheader-signin%26st...](https://signin.aws.amazon.com/signin?redirect_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3Fnc%23Dh_ct%26src%3Dheader-signin%26st...)



In AWS management console, click on S3 and it will redirect S3 bucket page.

A screenshot of the AWS Management Console homepage. The top navigation bar shows 'AWS Management Console' and the URL 'console.aws.amazon.com/console/home?nc2=h\_ct&amp;src=header-signin&amp;region=us-east-1'. The main header says 'AWS Management Console'. On the left, there's a sidebar titled 'AWS services' with sections for 'Recently visited services' (S3, CloudFormation, Security Hub, CloudFront, VPC, Simple Queue Service, Amazon SageMaker, IAM, EC2, Billing) and 'All services'. Below that is a 'Build a solution' section. On the right, there are two boxes: one for 'Stay connected to your AWS resources on-the-go' (describing AWS AppSync) and another for 'Explore AWS' (describing S3 Object Lambda). The footer includes links for 'Feedback', 'English (US)', 'Privacy Policy', 'Terms of Use', and 'Cookie preferences'.

Create a new bucket.

The screenshot shows the AWS S3 Management Console. The left sidebar has sections for Buckets, Storage Lens, and Feature spotlight. The main area is titled "Buckets (0)" and displays a message: "No buckets. You don't have any buckets." There is a "Create bucket" button at the bottom. The top navigation bar includes the AWS logo, services dropdown, search bar, and user information.

Provide a bucket name it should follow the naming standards.

The screenshot shows the "Create bucket" configuration page. The "General configuration" section includes fields for "Bucket name" (set to "lab4bucket-sr"), "AWS Region" (set to "US East (N. Virginia) us-east-1"), and a "Choose bucket" button for optional copy settings. Below this is a "Block Public Access settings for this bucket" section with a note about public access being granted through ACLs, policies, and access point policies. The bottom navigation bar includes the AWS logo, services dropdown, search bar, and user information.

I am giving public access to the bucket to access the uploaded object from S3 url bucket directly.

The screenshot shows the AWS S3 Management Console with the URL [s3.console.aws.amazon.com/s3/bucket/create?region=us-east-1](https://s3.console.aws.amazon.com/s3/bucket/create?region=us-east-1). The page displays options for blocking public access to a new bucket. A warning message states: "Turning off block all public access might result in this bucket and the objects within becoming public". A checkbox below the warning is checked, indicating acknowledgement of the risk. The interface includes standard AWS navigation elements like the AWS logo, search bar, and user profile.

After all the details are provided, click on create bucket

The screenshot shows the 'Create Bucket' configuration page. It includes sections for 'Default encryption' (disabled), 'Server-side encryption' (disabled), and 'Advanced settings'. A note at the bottom indicates that after creating the bucket, files and folders can be uploaded and additional settings configured. The 'Create bucket' button is prominently displayed at the bottom right. The page follows the standard AWS design with its characteristic look and feel.

Bucket is created successfully

The screenshot shows the AWS S3 Management Console. On the left, a sidebar menu includes 'Amazon S3', 'Buckets', 'Storage Lens', and 'Feature spotlight'. The main area displays a green success message: 'Successfully created bucket "lab4bucket-sr"'. Below this, a table lists the bucket 'lab4bucket-sr' with details: Name (lab4bucket-sr), AWS Region (US East (N. Virginia) us-east-1), Access (Objects can be public), and Creation date (April 19, 2021, 11:38:29 (UTC-04:00)).

To upload files in the bucket click on upload

The screenshot shows the 'Objects' tab for the bucket 'lab4bucket-sr'. The main area displays a message: 'No objects' and 'You don't have any objects in this bucket.' A prominent orange 'Upload' button is located at the bottom of the table.

Click on Add files to add files from the local computer.

S3 Management Console - X

s3.console.aws.amazon.com/s3/upload/lab4bucket-sr?region=us-east-1

Services Search for services, features, marketplace products, and docs [Alt+S]

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Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more [\[Link\]](#)

Drag and drop files and folders you want to upload here, or choose Add files, or Add folders.

**Files and folders (0)** Remove Add files Add folder

All files and folders in this table will be uploaded.

Find by name

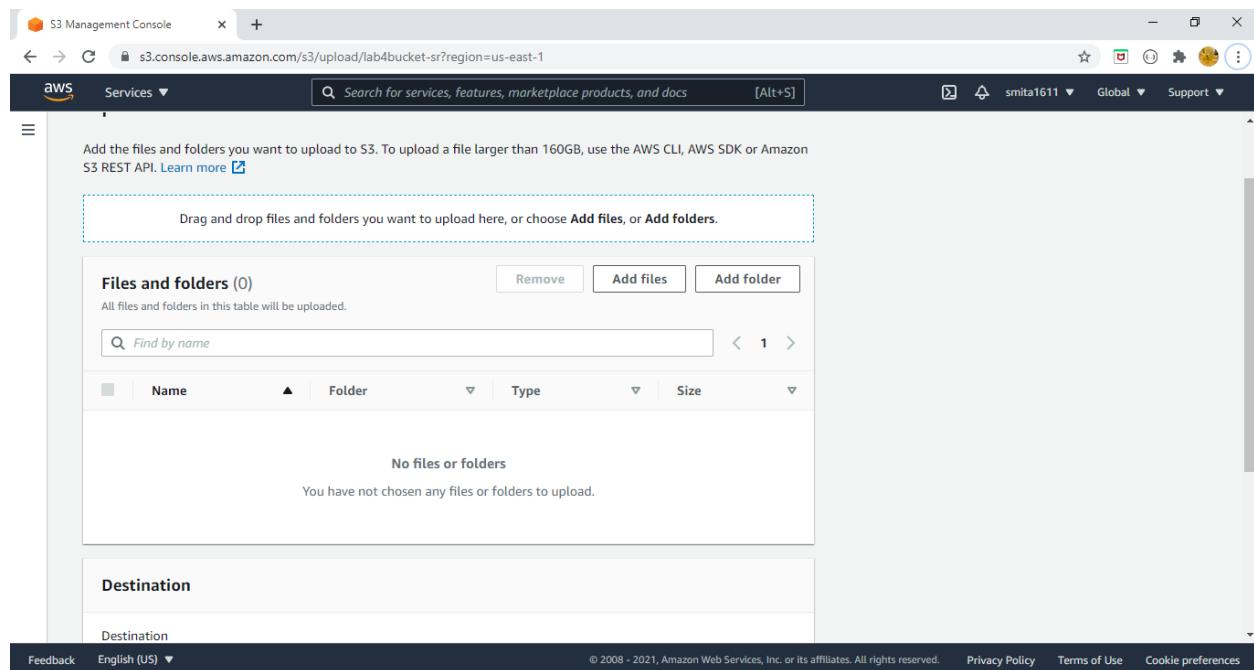
Name	Folder	Type	Size
No files or folders			

You have not chosen any files or folders to upload.

**Destination**

Destination

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I am uploading a jpg file in my s3 bucket

Open X

CS-524 A > HW > Labs > lab4 Search lab4

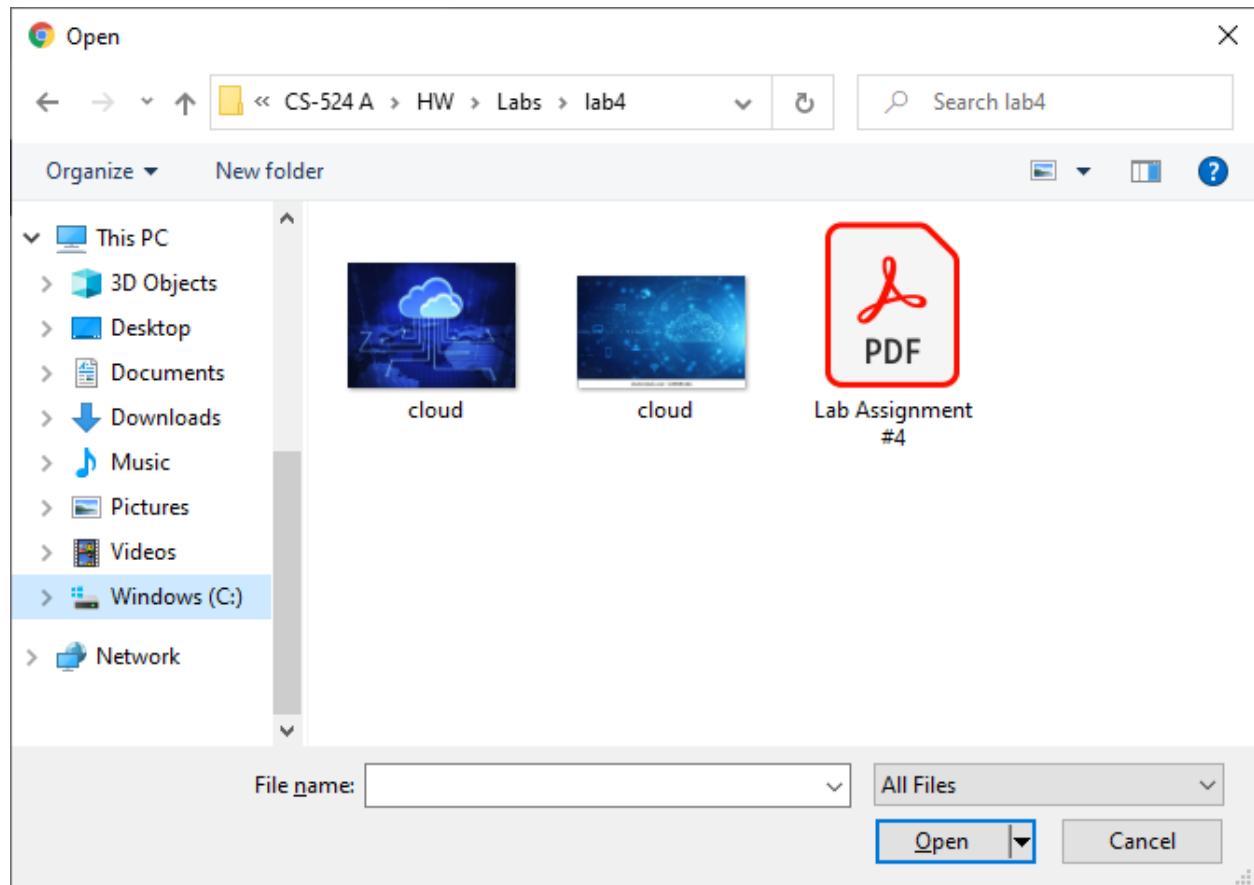
Organize New folder

This PC

- 3D Objects
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Videos

Windows (C:) File name:  All Files Open Cancel

Network



The screenshot shows a Windows 'Open' file dialog. The left pane displays a tree view of the local file system, with 'Windows (C:)' currently selected. The right pane shows three files: two 'cloud' images and a PDF file named 'Lab Assignment #4'. The PDF file is highlighted with a red box. At the bottom, there is a 'File name:' input field, a 'All Files' dropdown, and 'Open' and 'Cancel' buttons.

Once image is selected click on upload image.

The screenshot shows the AWS S3 Management Console upload interface. At the top, there's a header bar with the AWS logo, a search bar, and user information (smita1611). Below the header, a message says "Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. Learn more". A central area has a dashed blue border with the instruction "Drag and drop files and folders you want to upload here, or choose Add files, or Add folders.". Below this is a table titled "Files and folders (1 Total, 202.7 KB)" showing one file: "cloud.jpg" (image/jpeg, 202.7 KB). There are "Remove", "Add files", and "Add folder" buttons above the table. A "Destination" section follows, showing "Destination s3://lab4bucket-sr" and a "Destination details" link. At the bottom, there are links for Feedback, English (US), and various AWS terms like Privacy Policy, Terms of Use, and Cookie preferences.

This screenshot is similar to the previous one but includes additional sections at the bottom. It shows the same upload interface, file list, and destination settings. Below the destination section, there are two expandable sections: "Permissions" (Grant public access and access to other AWS accounts) and "Properties" (Specify storage class, encryption settings, tags, and more). At the very bottom right, there are "Cancel" and "Upload" buttons. The footer links and user information are identical to the first screenshot.

The screenshot shows the AWS S3 Management Console interface. At the top, a green banner displays the message "Upload succeeded" with a link to "View details below.". Below this, the "Summary" section shows the destination as "s3://lab4bucket-sr" and indicates 1 file was uploaded successfully (202.7 KB). The "Files and folders" tab is selected, showing a table with one item: "cloud.jpg" (image/jpeg, 202.7 KB, Status: Succeeded). The bottom of the page includes standard AWS navigation links like Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

After successful upload make the object public to access it from the object url.

The screenshot shows the AWS S3 Management Console interface. The left sidebar is expanded, showing options like Buckets, Storage Lens, and Feature spotlight. The main area shows the "lab4bucket-sr" bucket. A context menu is open over the "cloud.jpg" object, with the "Actions" dropdown expanded to show options like Download as, Edit actions, Rename object, and Make public. The "Objects" table shows the single uploaded file "cloud.jpg". The bottom of the page includes standard AWS navigation links like Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

The screenshot shows the AWS S3 Management Console. The URL in the address bar is [s3.console.aws.amazon.com/s3/buckets/lab4bucket-sr/object/edit\\_public\\_read\\_access?region=us-east-1&showversions=false](https://s3.console.aws.amazon.com/s3/buckets/lab4bucket-sr/object/edit_public_read_access?region=us-east-1&showversions=false). The page title is "Amazon S3 > lab4bucket-sr > Make public". The main content area is titled "Make public" with a sub-instruction: "The make public action enables public read access in the object access control list (ACL) settings. [Learn more](#)". A warning message in a box states: "⚠️ When public read access is enabled and not blocked by Block Public Access settings, anyone in the world can access the specified objects." Below this is a table titled "Specified objects" showing one item: "cloud.jpg" (Type: jpg, Last modified: April 19, 2021, 11:42:48 (UTC-04:00), Size: 202.7 KB). At the bottom are "Cancel" and "Make public" buttons. The footer includes links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

The screenshot shows the AWS S3 Management Console after the public access edit. The URL is the same as the previous screenshot. The main content area has a green header message: "Successfully edited public access View details below." Below this is a summary table:

Source	Successfully edited public access	Failed to edit public access
s3://lab4bucket-sr	1 object, 202.7 KB	0 objects

Below the summary is a tab navigation: "Failed to edit public access" (highlighted in orange) and "Configuration". Under "Failed to edit public access", there is a table showing "Failed to edit public access (0)". The footer includes links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

Once the object is public, click on the object URL to access the image.

S Management Console x

s3.console.aws.amazon.com/s3/object/lab4bucket-sr?region=us-east-1&prefix=cloud.jpg

AWS Services Search for services, features, marketplace products, and docs [Alt+S]

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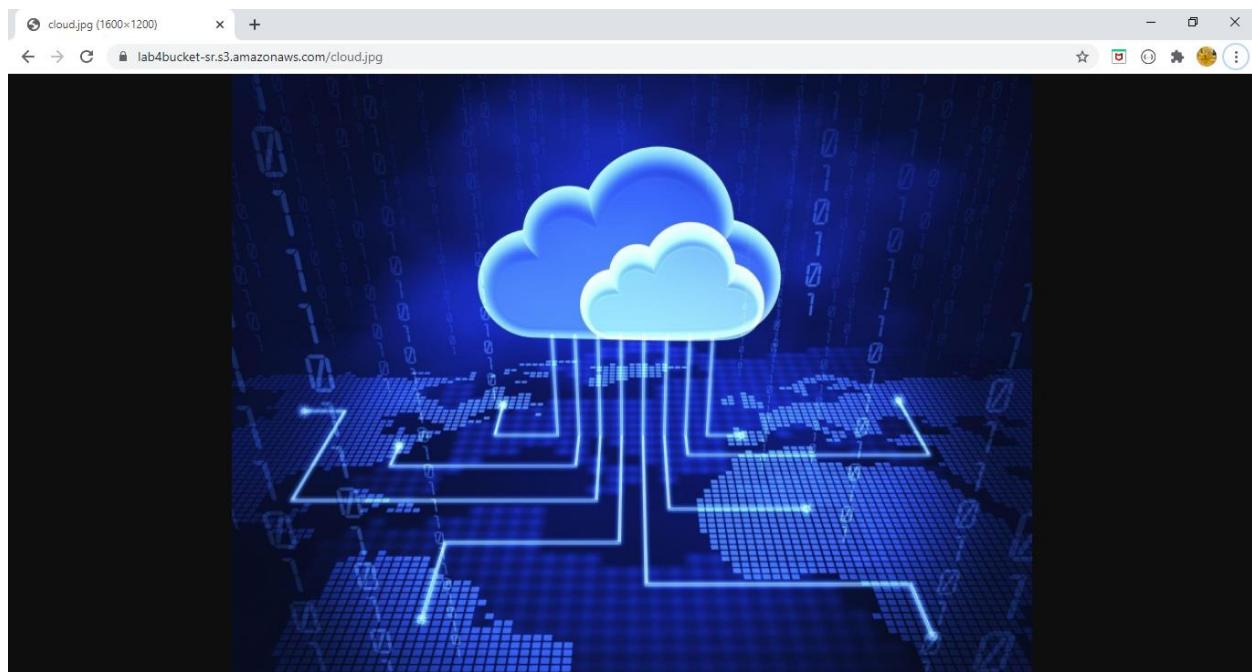
Properties Permissions Versions

**Object overview**

Owner	smita.main	S3 URI	<a href="s3://lab4bucket-sr/cloud.jpg">s3://lab4bucket-sr/cloud.jpg</a>
AWS Region	US East (N. Virginia) us-east-1	Amazon Resource Name (ARN)	<a href="arn:aws:s3:::lab4bucket-sr/cloud.jpg">arn:aws:s3:::lab4bucket-sr/cloud.jpg</a>
Last modified	April 19, 2021, 11:42:48 (UTC-04:00)	Entity tag (Etag)	<a href="#">ef3946afe6803674d8bc47ef923e07ea</a>
Size	202.7 KB	Object URL	<a href="https://lab4bucket-srs3.amazonaws.com/cloud.jpg">https://lab4bucket-srs3.amazonaws.com/cloud.jpg</a>
Type	jpg		
Key	<a href="#">cloud.jpg</a>		

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This is the image which I have uploaded in my S3 bucket.



To create a distribution, click on cloudfront in aws management console.

The screenshot shows the AWS Management Console homepage. The top navigation bar includes the AWS logo, a search bar, and links for Services, Support, and account information (smita1611, N. Virginia). The main content area features a sidebar titled "AWS services" with sections for "Recently visited services" (S3, CloudFormation, Security Hub, CloudFront, VPC, Simple Queue Service, Amazon SageMaker, IAM, EC2, Billing) and "All services". Below this is a "Build a solution" section with a link to simple wizards and automated workflows. To the right, there are promotional boxes for "Stay connected to your AWS resources on-the-go" (AWS Console Mobile App supports four regions) and "Explore AWS" (links to Serverless Apps with Infrastructure as Code and Reduce Amazon EFS Costs by 47%). The bottom of the page includes a footer with links for Privacy Policy, Terms of Use, and Cookie preferences.

Click on create distribution.

The screenshot shows the AWS CloudFront Management console. The top navigation bar is identical to the AWS Management Console. The left sidebar is titled "CloudFront" and contains sections for "Distributions" (highlighted in orange), Policies, What's new (marked with a star), Telemetry (Monitoring, Alarms, Logs NEW), Reports & analytics (Cache statistics, Popular objects, Top referrers, Usage, Viewers), and Security (Origin access identity). The main content area displays a message: "Handle redirects for end users with Lambda@Edge. Learn more" and "Amazon CloudFront - Get started". It includes a note: "Either your search returned no results, or you do not have any distributions. Click the button below to create a new CloudFront distribution. A distribution allows you to distribute content using a worldwide network of edge locations that provide low latency and high data transfer speeds (learn more)" and a prominent blue "Create Distribution" button. The bottom of the page includes a footer with links for Feedback, English (US) ▾, Privacy Policy, Terms of Use, and Cookie preferences.

The screenshot shows the AWS CloudFront Management console with the URL [console.aws.amazon.com/cloudfront/home?region=us-east-1#create-distribution](https://console.aws.amazon.com/cloudfront/home?region=us-east-1#create-distribution). The page title is "Select a delivery method for your content." It is a "Web" distribution. The left sidebar shows "Step 1: Select delivery method" and "Step 2: Create distribution". The main content area has a heading "Create a web distribution if you want to:" followed by a bulleted list: "Speed up distribution of static and dynamic content, for example, .html, .css, .php, and graphics files.", "Distribute media files using HTTP or HTTPS.", "Add, update, or delete objects, and submit data from web forms.", and "Use live streaming to stream an event in real time." Below this is a note: "You store your files in an origin - either an Amazon S3 bucket or a web server. After you create the distribution, you can add more origins to the distribution." At the bottom are "Get Started" and "Cancel" buttons.

In the origin domain name, select the S3 bucket from which you want the content to be delivered.

The screenshot shows the "Create Distribution" page in the AWS CloudFront Management console. The URL is [console.aws.amazon.com/cloudfront/home?region=us-east-1#create-distribution](https://console.aws.amazon.com/cloudfront/home?region=us-east-1#create-distribution). The title is "Create Distribution". The left sidebar shows "Step 1: Select delivery method" and "Step 2: Create distribution". The main content area is titled "Origin Settings". It includes fields for "Origin Domain Name" (with a dropdown menu showing "Amazon S3 Buckets" and "lab4bucket-s3.amazonaws.com"), "Origin Path" (empty), "Origin ID" (empty), and "Origin Custom Headers" (empty). Below this is the "Default Cache Behavior Settings" section, which includes "Path Pattern" (set to "Default (\*)" with a dropdown), "Viewer Protocol Policy" (set to "HTTP and HTTPS" with radio buttons for "Redirect HTTP to HTTPS" and "HTTPS Only"), "Allowed HTTP Methods" (set to "GET, HEAD" with radio buttons for "GET, HEAD, OPTIONS" and "GET, HEAD, OPTIONS, PUT, POST, PATCH, DELETE"), and a "Field-level Encryption Config" dropdown. At the bottom are "Feedback", "English (US)", "Privacy Policy", "Terms of Use", and "Cookie preferences".

By Restricting the bucket access, objects in bucket can only be accessed from the cloud front urls, not the S3 bucket directly. I am creating a new Access Identity to access the s3 content through cloudfont urls by assigning a cloudfont user – an origin access identity to my origin.

The screenshot shows the 'Create Distribution' page in the AWS CloudFront Management console. The left sidebar indicates 'Step 1: Select delivery method' and 'Step 2: Create distribution'. The main area is titled 'Origin Settings'.

**Origin Domain Name:** lab4bucket-sr.s3.amazonaws.com

**Origin Path:** (empty)

**Enable Origin Shield:**  Yes  No

**Origin ID:** S3-lab4bucket-sr

**Restrict Bucket Access:**  Yes  No

**Origin Access Identity:**  Create a New Identity  Use an Existing Identity

Informational notes on the right side provide details about Origin Shield, origin descriptions, and serving private content through CloudFront.

I am providing the grant permission on bucket so that cloudfont to automatically granting the read permissions to S3 objects, so the cloud front can access objects from s3 bucket.

The screenshot shows the 'Create Distribution' page in the AWS CloudFront Management console. The left sidebar indicates 'Step 1: Select delivery method' and 'Step 2: Create distribution'. The main area shows 'Grant Read Permissions on Bucket' settings.

**Comment:** access-identity-lab4bucket-sr.s3.amazonaws

**Grant Read Permissions on Bucket:**  Yes, Update Bucket Policy  No, I Will Update Permissions

**Origin Connection Attempts:** 3

**Origin Connection Timeout:** 10

**Origin Custom Headers:** Header Name [Value input field]

**Default Cache Behavior Settings:**

- Path Pattern:** Default (\*)
- 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

Informational notes on the right side explain the purpose of the 'Grant Read Permissions on Bucket' setting and the behavior of CloudFront with respect to origin access identities.

Default parameters I have not changed and created the distribution.

AWS CloudFront Management C

Step 1: Select delivery method  
Step 2: Create distribution

Supported HTTP Versions:  HTTP/2, HTTP/1.1, HTTP/1.0  HTTP/1.1, HTTP/1.0

Default Root Object: [ ]

Standard Logging:  On  Off

S3 Bucket for Logs: [ ]

Log Prefix: [ ]

Cookie Logging:  On  Off

Enable IPv6:

Comment: [ ]

Distribution State:  Enabled  Disabled

[Create Distribution](#)

Distribution is created and state is enabled, and status is in progress, it takes some time to changed the status to deployed.

AWS CloudFront Management C

CloudFront Distributions

[Create Distribution](#) [Distribution Settings](#) [Delete](#) [Enable](#) [Disable](#)

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
Web	E2MQMYG0T8JUK	d18v3h1qv04q1n	-	lab4bucket	-	In Prog	Enabled	2021-04-19 11:44

The screenshot shows the AWS CloudFront Management Console. On the left, there's a sidebar with options like Distributions, Telemetry, Reports & analytics, and Security. The main area is titled "CloudFront Distributions" and shows a table with one item:

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
Web	E2MQMYG0TBJUK	d18v3h1qv04q1n	-	lab4bucket	-	Deployed	Enabled	2021-04-19 11:4

At the bottom, there are links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

Once distribution is created, I am restricting the public access from S3 bucket.

The screenshot shows the AWS Management Console homepage. On the left, there's a sidebar with "AWS services" and "Recently visited services" (CloudFront, CloudFormation, Security Hub, S3, VPC, Amazon SageMaker, IAM, EC2, Billing). Below that is a "Build a solution" section. On the right, there are sections for "Stay connected to your AWS resources on-the-go" (AWS Console Mobile App) and "Explore AWS" (AWS Certification, Reduce Amazon EFS Costs by 47%). At the bottom, there are links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

The screenshot shows the AWS S3 Management Console. The left sidebar has 'Amazon S3' selected under 'Buckets'. The main area displays a table titled 'Buckets (1)'. The table has columns for Name, AWS Region, Access, and Creation date. One row is shown: 'lab4bucket-sr', 'US East (N. Virginia) us-east-1', 'Objects can be public', and 'April 19, 2021, 11:38:29 (UTC-04:00)'. At the top right of the table are buttons for 'Copy ARN', 'Empty', 'Delete', and 'Create bucket'.

Under permission I am editing the block public access.

The screenshot shows the AWS S3 Management Console. The left sidebar has 'Amazon S3' selected under 'Buckets'. The main area shows the 'Objects (1)' section for the 'lab4bucket-sr' bucket. The table has columns for Name, Type, Last modified, Size, and Storage class. One object is listed: 'cloud.jpg', 'jpg', 'April 19, 2021, 11:42:48 (UTC-04:00)', '202.7 KB', and 'Standard'. At the top right of the table are buttons for 'Copy URL', 'Delete', 'Actions', 'Create folder', and 'Upload'.

S3 Management Console | Four Steps for Debugging your C | +

s3.console.aws.amazon.com/s3/bucket/lab4bucket-sr/property/bpa/edit?region=us-east-1

Services ▾

Amazon S3

Buckets

- Access Points
- Object Lambda Access Points
- Batch Operations
- Access analyzer for S3

Block Public Access settings for this account

▼ Storage Lens

- Dashboards
- AWS Organizations settings

Feature spotlight 3

AWS Marketplace for S3

Feedback English (US) ▾

Search for services, features, marketplace products, and docs [Alt+S]

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## Edit Block public access (bucket settings)

### Block public access (bucket settings)

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

**Block all public access**

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- Block public access to buckets and objects granted through new access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- Block public access to buckets and objects granted through any access control lists (ACLs)**  
S3 will ignore all ACLs that grant public access to buckets and objects.
- Block public access to buckets and objects granted through new public bucket or access point policies**  
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

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s3.console.aws.amazon.com/s3/bucket/lab4bucket-sr/property/bpa/edit?region=us-east-1

Services ▾

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Search for services, features, marketplace products, and docs [Alt+S]

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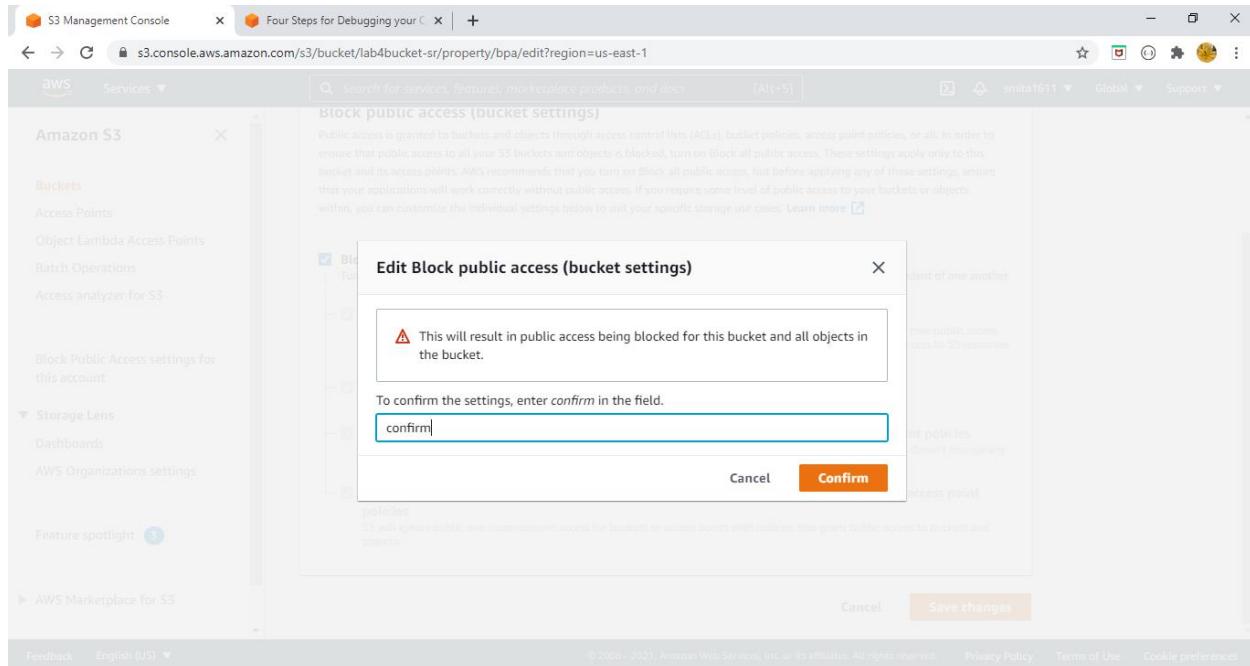
**Block all public access**

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

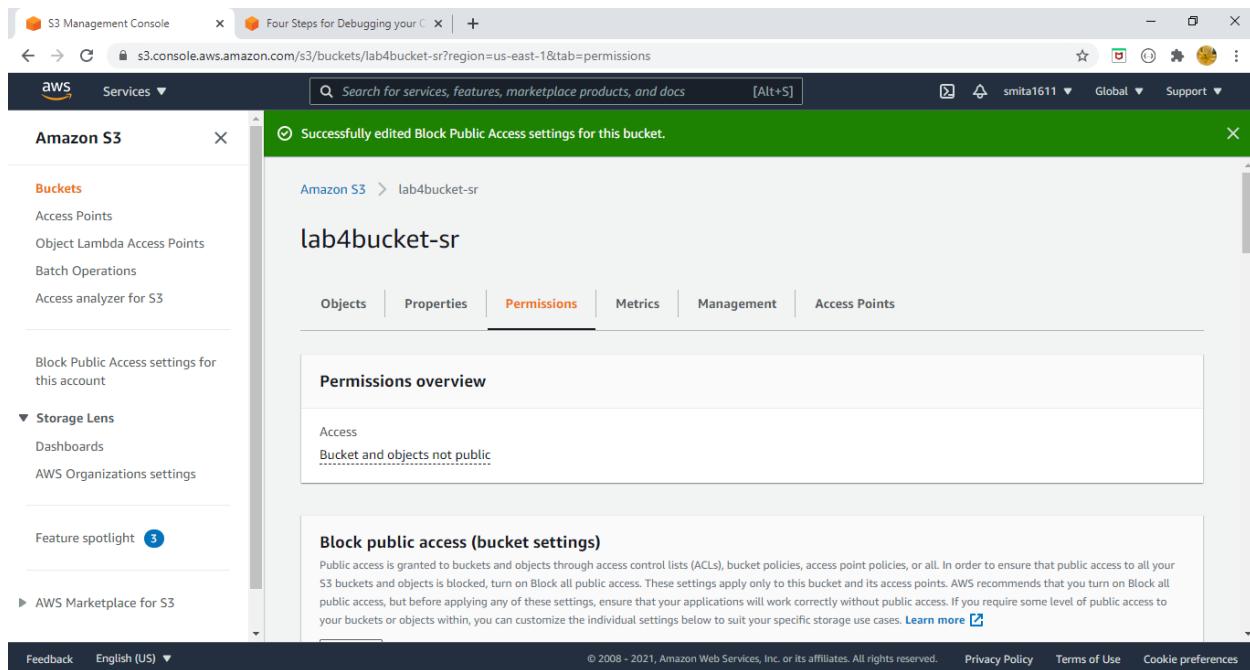
- Block public access to buckets and objects granted through new access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- Block public access to buckets and objects granted through any access control lists (ACLs)**  
S3 will ignore all ACLs that grant public access to buckets and objects.
- Block public access to buckets and objects granted through new public bucket or access point policies**  
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- Block public and cross-account access to buckets and objects through any public bucket or access point policies**  
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

Cancel Save changes

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Now the buckets and objects in the bucket are not public.



If I try to access the object from s3 bucket, now I will not be able to access it, because I have restricted the public access. So, it will give the message as Access denied, I can only access my object through Cloud front URI, while creating I have checked the option restrict bucket access which will allow to access the object only through Cloudfront URL, not through S3 buket URI.

The screenshot shows the AWS S3 Management Console. On the left, there's a sidebar with options like Buckets, Storage Lens, and Feature spotlight. The main area is titled 'Object overview' and displays the following details for the file 'cloud.jpg':

Attribute	Value
Owner	smita.main
AWS Region	US East (N. Virginia) us-east-1
Last modified	April 19, 2021, 11:42:48 (UTC-04:00)
Size	202.7 KB
Type	jpg
Key	cloud.jpg
S3 URI	<a href="s3://lab4bucket-sr/cloud.jpg">s3://lab4bucket-sr/cloud.jpg</a>
Amazon Resource Name (ARN)	<a href="#">arn:aws:s3:::lab4bucket-sr/cloud.jpg</a>
Entity tag (Etag)	<a href="#">ef3946afe6803674d8bc47ef923e07ea</a>
Object URL	<a href="https://lab4bucket-sr.s3.amazonaws.com/cloud.jpg">https://lab4bucket-sr.s3.amazonaws.com/cloud.jpg</a>

At the bottom, there are links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

Access denied when try to access the object url.

The screenshot shows a browser window with the URL <https://lab4bucket-sr.s3.amazonaws.com/cloud.jpg>. The page displays an XML error response:

```
<Error>
<Code>AccessDenied</Code>
<Message>Access Denied</Message>
<RequestId>865VZNRV94EPRA</RequestId>
<HostId>RFaJkotxYUebOXFZpU+4u2gRbbj0RsEuNueSbYD8HkrAF6zuVSTVRsfIx7+tA7g+UG5j/DeTQ=</HostId>
</Error>
```

The screenshot shows the AWS S3 Management Console interface. On the left, there's a sidebar with various navigation options like 'Buckets', 'Access Points', 'Object Lambda Access Points', 'Batch Operations', and 'Access analyzer for S3'. Below that is a section for 'Block Public Access settings for this account'. Under 'Storage Lens', there are 'Dashboards' and 'AWS Organizations settings'. A 'Feature spotlight' section is also present. At the bottom of the sidebar, there's a link to 'AWS Marketplace for S3'. The main content area is titled 'lab4bucket-sr' and has tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is selected, showing a list with one item: 'cloud.jpg'. The details for this object are: Name: cloud.jpg, Type: jpg, Last modified: April 19, 2021, 11:42:48 (UTC-04:00), Size: 202.7 KB, Storage class: Standard. There are buttons for 'Copy URL', 'Delete', 'Actions', 'Create folder', and 'Upload'. A search bar at the top of the list says 'Find objects by prefix'. The status bar at the bottom of the browser window shows '11:56 AM 4/19/2021'.

<http://d18v3h1qvo4q1m.cloudfront.net/cloud.jpg>

<http://cloudfrontdomain/object-name>

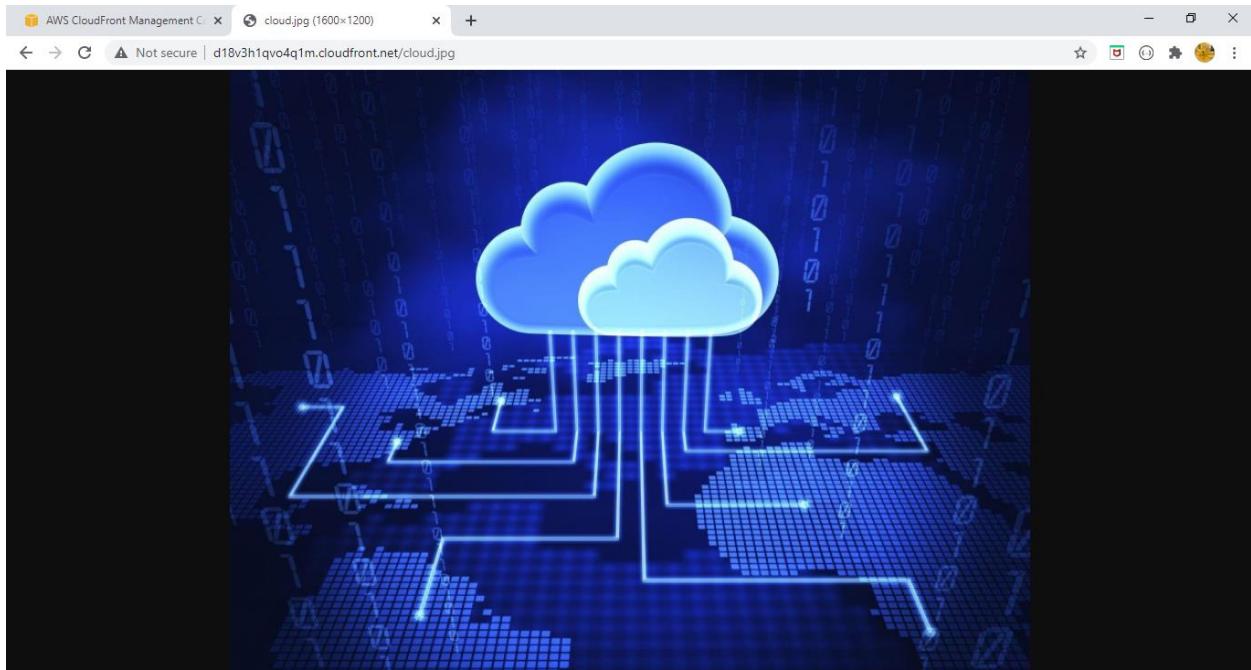
**To access the object from cloudfont url, construct the URL by providing the cloudfont domain name and object name**

The screenshot shows the AWS CloudFront Management console. The left sidebar has sections for Distributions, Telemetry, Reports & analytics, and Security. The main area displays a distribution named "E2MQMYG0T8JUK" with a domain name "d18v3h1qvo4q1m.cloudfront.net". A message at the top says "Follow the best practices for debugging CloudFront and Lambda@Edge. Learn more". An important notice below states: "Important: On March 23, 2021, CloudFront will begin migrating the Certificate Authority for the \* cloudfront.net certificate. For more information, refer to the AWS Knowledge Center." The status of the distribution is "Deployed".

The screenshot shows a web browser window with the URL "http://d18v3h1qvo4q1m.cloudfront.net/cloud.jpg". The page displays the Google search bar and various links. Below the search bar, there are icons for GitHub, myStevens, Inbox (2,260), Facebook, YouTube, Home, Google, LinkedIn, React App, and Add shortcut. A message at the bottom of the page reads: "Everyone ages 16 and up can get the COVID-19 vaccine. Find a vaccination site near you." A "Customize" button is also visible.

<http://d18v3h1qvo4q1m.cloudfront.net/cloud.jpg>

I am able to access the object through this cloudfont URL.



**Now I am changing some behavior to improve the content delivery network service.**

The screenshot shows the AWS CloudFront Management console. The left sidebar has a tree view with 'CloudFront' selected, under which 'Distributions' is expanded, showing 'Policies' and 'What's new'. Other collapsed sections include 'Telemetry', 'Reports & analytics', and 'Security'. The main content area is titled 'CloudFront Distributions > E2MQMYG0T8JUK'. It has tabs for General, Origins and Origin Groups, Behaviors, Error Pages, Restrictions, Invalidations, and Tags. The Behaviors tab is active. Below the tabs is a note: 'CloudFront compares a request for an object with the path patterns in your cache behaviors based on the order of the cache behaviors in your distribution. Arrange cache behaviors in the order in which you want CloudFront to evaluate them.' A button 'Create Behavior' is visible. Below the note is a table with one row:

Precedence	Path Pattern	Origin or Origin Group	Viewer Protocol	Cache Policy Name	Origin Request Policy	Trusted Key Groups	Trusted Signatures
0	Default (*)	S3-lab4bucket-sr	HTTPS Only	Managed-CachingC	-	-	-

At the bottom of the page, there are links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences. The footer contains the text '© 2006 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.'

**First the content from S3 were accessible from HTTP and HTTPS, not I will change it to only HTTPS, so only secured connection can access the content.**

**And the allowed HTTP methods I am changing from GET, HEAD and all which includes GET, HEAD, PUT, POST, PATCH, DELETE, so all these requests are now possible for my cloudfront URL.**

The screenshot shows the AWS CloudFront Management console with the URL [console.aws.amazon.com/cloudfront/home?region=us-east-1#](https://console.aws.amazon.com/cloudfront/home?region=us-east-1#). The page title is "Edit Behavior". Under "Default Cache Behavior Settings", the "Path Pattern" is "Default (\*)". The "Origin or Origin Group" is "S3-lab4bucket-sr". The "Viewer Protocol Policy" is set to "HTTP and HTTPS". The "Allowed HTTP Methods" section has "GET, HEAD" selected. The "Field-level Encryption Config" dropdown is empty. The "Cached HTTP Methods" is "GET, HEAD (Cached by default)". The "Cache and origin request settings" has "Use a cache policy and origin request policy" selected. The "Cache Policy" is "Managed-CachingOptimized". There is a "Create a new policy" button and a "View policy details" link. At the bottom, there are links for Feedback, English (US), Privacy Policy, Terms of Use, and Cookie preferences.

This screenshot shows the same AWS CloudFront Management console interface as the previous one, but with a different configuration. The "Viewer Protocol Policy" is now set to "HTTPS Only", highlighted with a yellow background and a tooltip explaining that it will drop any HTTP traffic. The "Allowed HTTP Methods" section now includes "PUT, POST, PATCH, DELETE". The rest of the settings remain the same: Path Pattern "Default (\*)", Origin "S3-lab4bucket-sr", Field-level Encryption Config empty, Cached HTTP Methods "GET, HEAD (Cached by default)", Cache and origin request settings "Use a cache policy and origin request policy", Cache Policy "Managed-CachingOptimized", and Create a new policy button.

**To enable smooth streaming of my content, I am selecting yes, this is helpful when our content contains video which will enable the smooth streaming to the users.**

**I can restrict the viewer access as well so only the CloudFront signed URLs or signed cookies will be able to access the content. To do that user can create a signed key group or use an existing key group which will enable this property.**

**I am also compressing the objects while delivering the content from S3, which will help in enabling smooth delivery of the content.**

**After doing these behavior changes I am saving the changes.**

Smooth Streaming  Yes  
 No  
Choose No if your origin is configured to use Microsoft IIS for Smooth Streaming.

Restrict Viewer Access (Use Signed URLs or Signed Cookies)  Yes  No

Compress Objects Automatically  Yes  No  
Learn More

Lambda Function Associations

CloudFront Event	Lambda Function ARN	Include Body
Select Event Type ▾		<input type="checkbox"/>

Enable Real-time Logs  Yes  No

Feedback English (US) ▾ © 2006 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Cancel Yes, Edit

Once the changes are done, it will take some time for the state to change again to deployed.

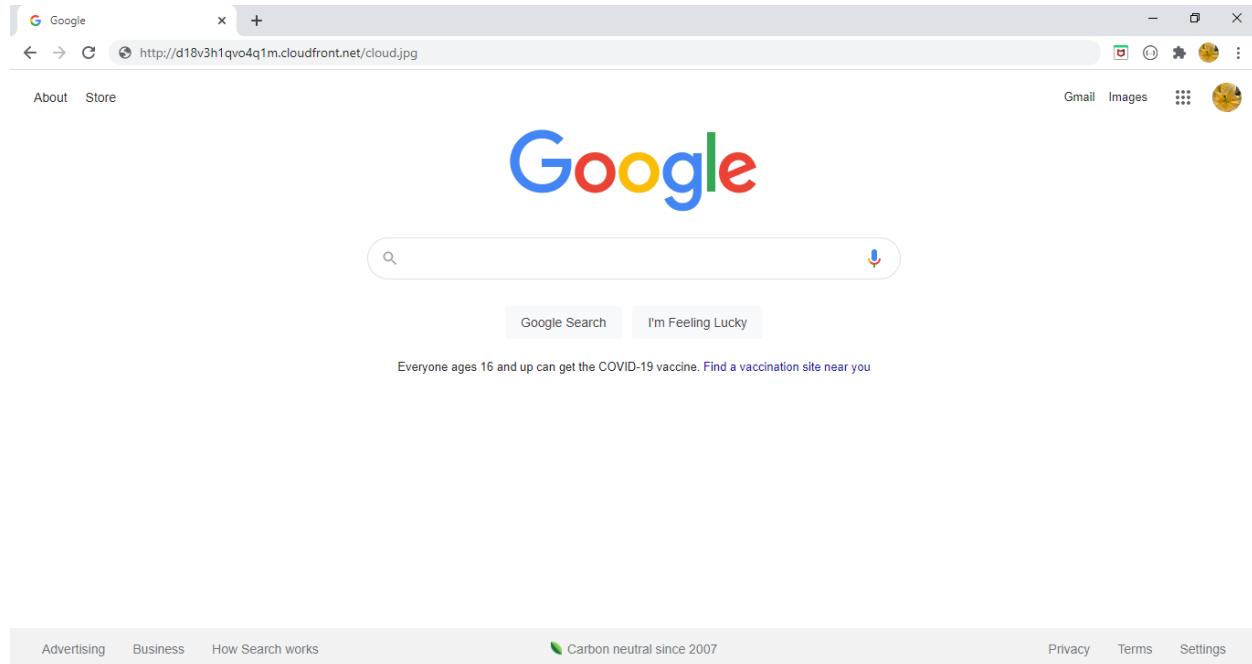
The screenshot shows the AWS CloudFront Management console. On the left, a sidebar lists various services: Distributions, Policies, What's new, Telemetry (Monitoring, Alarms, Logs NEW), Reports & analytics (Cache statistics, Popular objects, Top referrers, Usage, Viewers), and Security. The main area is titled "CloudFront Distributions". It features a "Create Distribution" button and several status buttons: Distribution Settings, Delete, Enable, and Disable. A search bar at the top says "Search for services, features, marketplace products, and docs [Alt+S]". Below the search bar is a message: "Follow the best practices for debugging CloudFront and Lambda@Edge. Learn more". An important notice states: "Important: On March 23, 2021, CloudFront will begin migrating the Certificate Authority for the \*.cloudfront.net certificate. For more information, refer to the AWS Knowledge Center." A table displays one distribution entry:

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Mod
Web	E2MQMYG0T8JUK	d18v3h1qv04q1m.cloudfront.net	-	lab4bucke	-	In Prog	Enabled	2021-04-

At the bottom, there are navigation links: Feedback, English (US) ▾, © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved., Privacy Policy, Terms of Use, and Cookie preferences.

This screenshot is identical to the first one, showing the AWS CloudFront Management console with the same sidebar, main title, and distribution table. The distribution entry is the same, but the "Status" column now shows "Deployed" instead of "In Prog". The rest of the interface, including the notices and footer, remains the same.

After the behavior changes are deployed, If I try to access the HTTP url which I was able to access before, I will get error, because I have changed in the behavior only HTTPs are allowed.



**The request is not satisfied for HTTP request.**



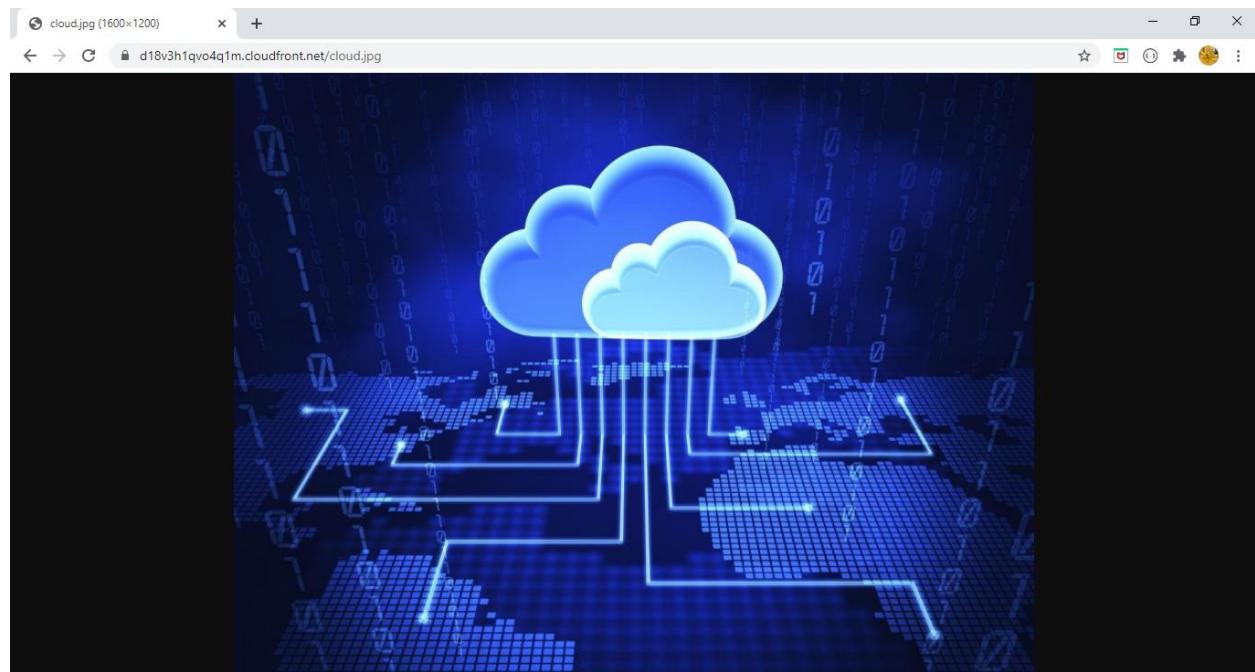
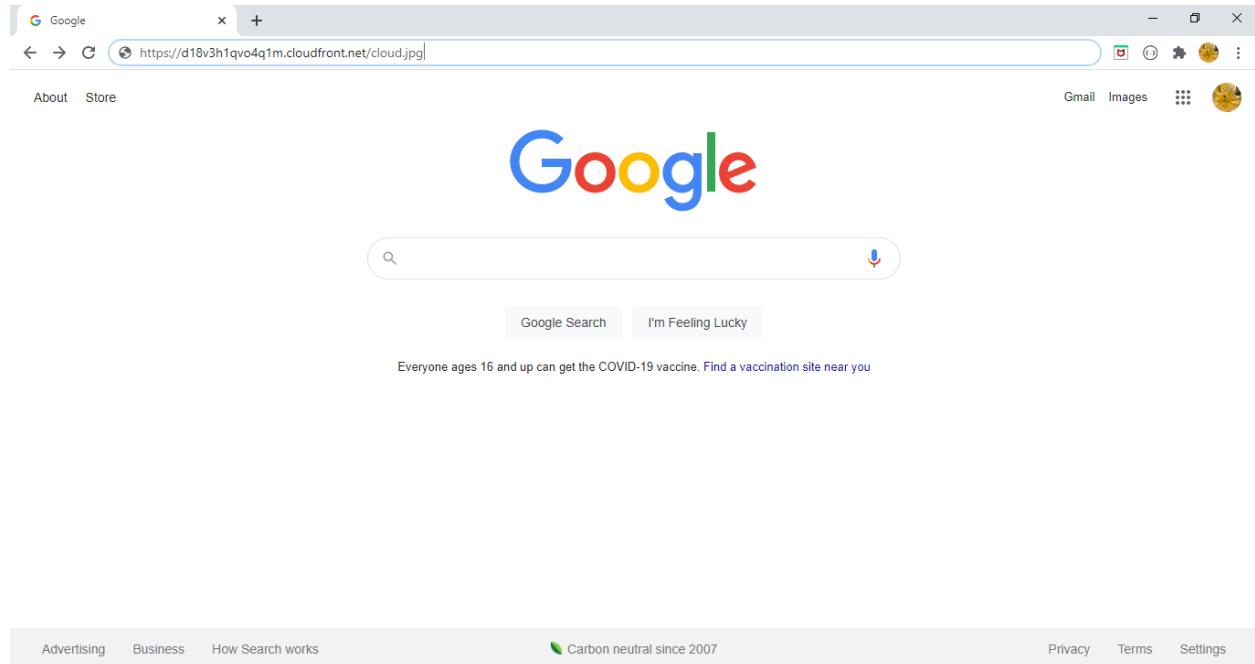
## 403 ERROR

**The request could not be satisfied.**

Bad request. We can't connect to the server for this app or website at this time. There might be too much traffic or a configuration error. Try again later, or contact the app or website owner.  
If you provide content to customers through CloudFront, you can find steps to troubleshoot and help prevent this error by reviewing the CloudFront documentation.

Generated by cloudfront (CloudFront)  
Request ID: XytSPzOCicD3poFUMxigNK5tm00uj9NKF5Su8HQ3YZOsOPzGAtqXHA==

**Now If I try to access the same URL using HTTPS, I will be able to access the object.**



I can also take the logs for the requests which for the cloudfont distribution by enabling standard logging which comes under free tier, for real time logging aws user has to pay on monthly basis. So, I am enabling standard logging. If I enable the standard logging, I should provide a S3 bucket where I want to store my logs, so for that I have created a one more S3 bucket to store the logs.

The screenshot shows the AWS S3 Management Console. On the left, there's a sidebar with options like Buckets, Storage Lens, and Feature spotlight. The main area displays a table of buckets:

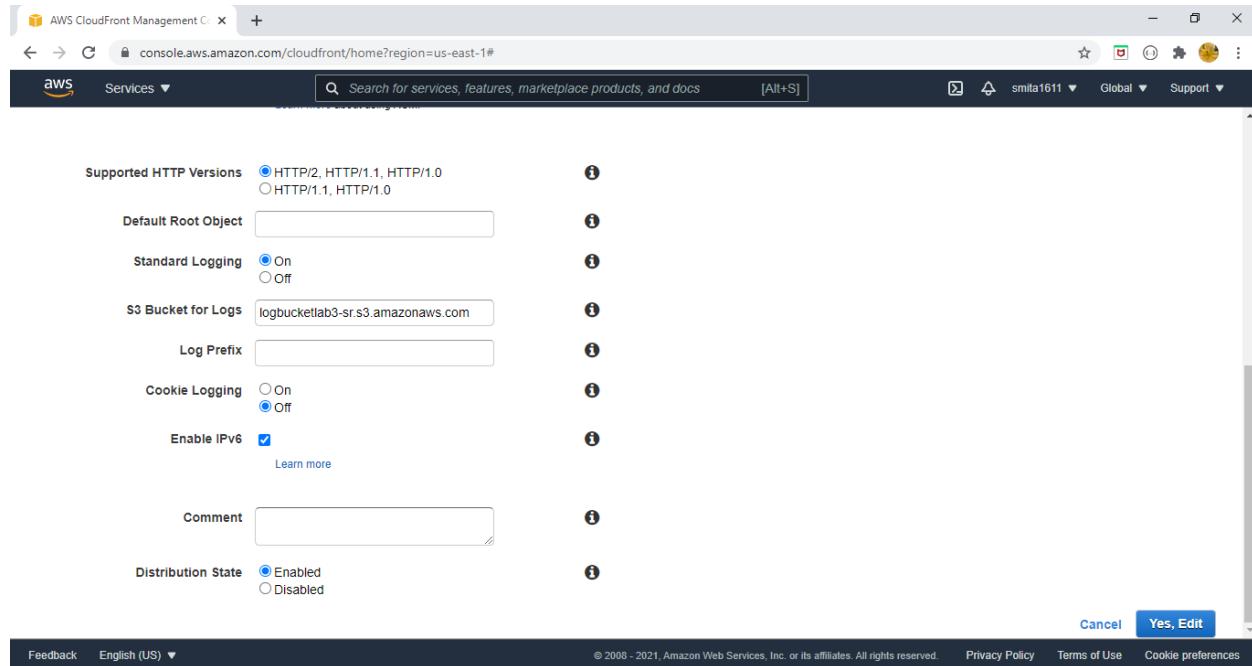
Name	AWS Region	Access	Creation date
lab4bucket-sr	US East (N. Virginia) us-east-1	Bucket and objects not public	April 19, 2021, 11:38:29 (UTC-04:00)
logbucketlab3-sr	US East (N. Virginia) us-east-1	Objects can be public	April 19, 2021, 12:57:33 (UTC-04:00)

## For the distribution under general I am editing the configuration

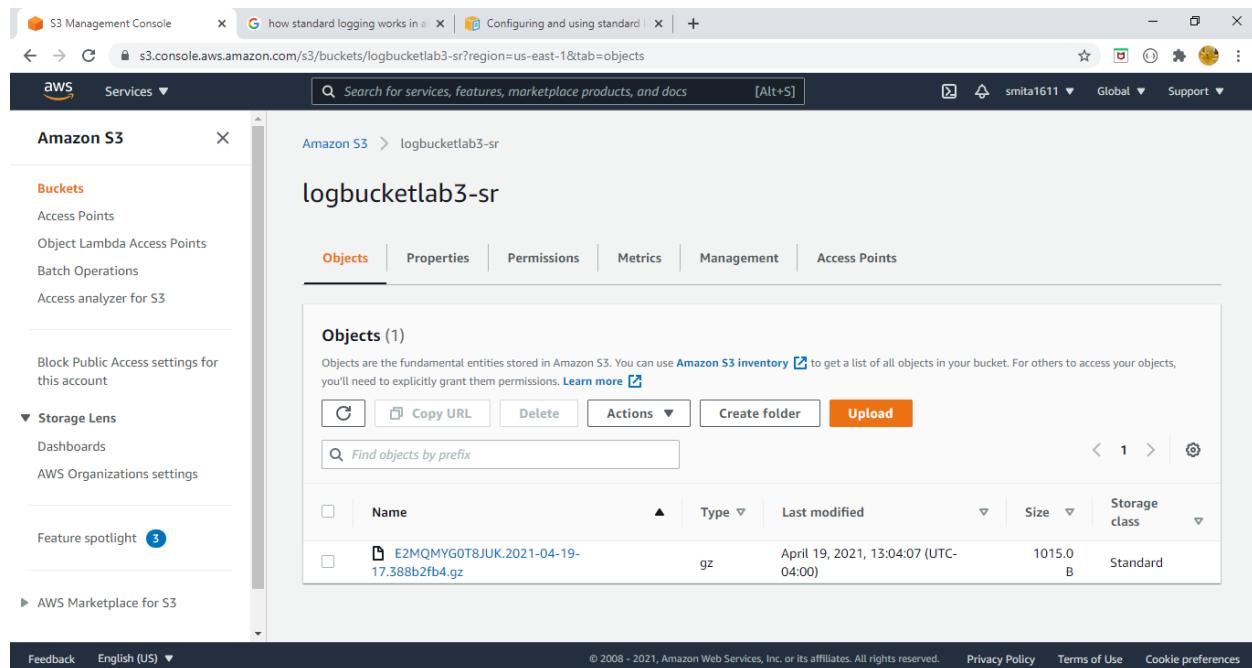
The screenshot shows the AWS CloudFront Management Console. The left sidebar includes sections for Distributions, Telemetry (Monitoring, Alarms, Logs), Reports & analytics (Cache statistics, Popular objects, Top referrers, Usage, Viewers), and Security (Origin access identity). The main area is titled "CloudFront Distributions > E2MQMYG0T8JUK" and shows the "General" tab selected. The distribution configuration details are listed:

- Distribution ID:** E2MQMYG0T8JUK
- ARN:** arn:aws:cloudfront::102057490846:distribution/E2MQMYG0T8JUK
- Log Prefix:** -
- Delivery Method:** Web
- Cookie Logging:** Off
- Distribution Status:** Deployed
- Comment:** -
- Price Class:** Use All Edge Locations (Best Performance)
- AWS WAF Web ACL:** -
- State:** Enabled
- Alternate Domain Names (CNAMEs):** -
- SSL Certificate:** Default CloudFront Certificate (\*.cloudfront.net)
- Domain Name:** d18v3h1qvo4q1m.cloudfront.net
- Custom SSL Client Support:** -
- Security Policy:** TLSv1
- Supported HTTP Versions:** HTTP/2, HTTP/1.1, HTTP/1.0
- IPv6:** Enabled
- Default Root Object:** -
- Last Modified:** 2021-04-19 12:58 UTC-4

And enabling the standard logging and providing the S3 bucket for logs, where I can access my logs to check the requests happened to cloudfront distribution.



**After saving the changes, I can see a file has been generated under my S3 log bucket, when I opened the file through Object URL it got downloaded to my system, and it was zip file, after extracting from zip file, I am able to see all the requests for my cloudfront distribution.**



The screenshot shows the AWS S3 Management Console with the URL <https://s3.console.aws.amazon.com/s3/object/logbucketlab3-sr?region=us-east-1&prefix=E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz>. The left sidebar includes links for Buckets, Access Points, Object Lambda Access Points, Batch Operations, Access analyzer for S3, Block Public Access settings for this account, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight (with 3 notifications), and AWS Marketplace for S3. The main content area has tabs for Properties, Permissions, and Versions, with Properties selected. The Object overview section displays the following details:

Object Overview Details	Value
Owner	awslogsdelivery*s3_us-east-1
AWS Region	US East (N. Virginia) us-east-1
Last modified	April 19, 2021, 13:04:07 (UTC-04:00)
Size	1015.0 B
Type	gz
Key	E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz
S3 URI	<a href="https://s3://logbucketlab3-sr/E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz">s3://logbucketlab3-sr/E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz</a>
Amazon Resource Name (ARN)	<a href="arn:aws:s3:::logbucketlab3-sr/E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz">arn:aws:s3:::logbucketlab3-sr/E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz</a>
Entity tag (Etag)	<a href="#">9683113421986ae94ace9a3c0b51973a</a>
Object URL	<a href="https://logbucketlab3-sr.s3.amazonaws.com/E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz">https://logbucketlab3-sr.s3.amazonaws.com/E2MQMYG0T8JUK.2021-04-19-17.388b2fb4.gz</a>

**Log file shows the date, edge-location, result-type(success or error), url, time-taken, x-edge-result-type (hit, miss etc), protocol, host-header etc, so this is very useful to check the request types which is hitting the cloudfront distribution.**

```
E2MQMYG0T8JUK.2021-04-19-17 - Notepad
File Edit Format View Help

result-type x-edge-request-id x-host-header cs-protocol cs-bytes time-taken x-forwarded-for ssl-protocol ssl-cipher x-edge-response-result-type cs-protocol-version fl-status fl-encrypted-fields c-port time-to-first-b
Mozilla/5.0%20(Windows%20NT%2010.0;%20Win64;%20x64)%20AppleWebKit/537.36%20(KHTML,%20Ike%20Gecko)%20Chrome/89.0.4389.128%20Safari/537.36 - - - Hit Jy2paVU4E
3 https://d18v3h1qv04q1m.cloudfront.net/cloud.jpg Mozilla/5.0%20(Windows%20NT%2010.0;%20Win64;%20x64)%20AppleWebKit/537.36%20(KHTML,%20Ike%20Gecko)%20Chrome/89.0.4389.128%20Safari/537.36 - - - Hit Jy2paVU4E
3 http://d18v3h1qv04q1m.cloudfront.net/ Mozilla/5.0%20(Windows%20NT%2010.0;%20Win64;%20x64)%20AppleWebKit/537.36%20(KHTML,%20Ike%20Gecko)%20Chrome/89.0.4389.128%20Safari/537.36 - - - Hit Jy2paVU4E
3 https://d18v3h1qv04q1m.cloudfront.net/cloud.jpg Mozilla/5.0%20(Windows%20NT%2010.0;%20Win64;%20x64)%20AppleWebKit/537.36%20(KHTML,%20Ike%20Gecko)%20Chrome/89.0.4389.128%20Safari/537.36 - - - Error GzA1a7EHl
Mozilla/5.0%20(Windows%20NT%2010.0;%20Win64;%20x64)%20AppleWebKit/537.36%20(KHTML,%20Ike%20Gecko)%20Chrome/89.0.4389.128%20Safari/537.36 - - - Error GzA1a7EHl
3 https://d18v3h1qv04q1m.cloudfront.net/cloud.jpg Mozilla/5.0%20(Windows%20NT%2010.0;%20Win64;%20x64)%20AppleWebKit/537.36%20(KHTML,%20Ike%20Gecko)%20Chrome/89.0.4389.128%20Safari/537.36 - - - Error GzA1a7EHl
```

	https	499	0.001	-	TLSv1.3	TLS_AES_128_GCM_SHA256	Hit	HTTP/2.0	-	-	49884	0.001	Hit	-	-	-	-	-	-
xi-GrHw==	d18v3h1qv04q1m.cloudfront.net	https	164	0.125	-	TLSv1.3	TLS_AES_128_GCM_SHA256	Error	HTTP/2.0	-	-	49884	0.125	Error	application/	ap			
=d18v3h1qv04q1m.cloudfront.net	https	68	0.132	-	TLSv1.3	TLS_AES_128_GCM_SHA256	Error	HTTP/2.0	-	-	49884	0.132	Error	application/	ap				
/KmSWDowA==	d18v3h1qv04q1m.cloudfront.net	https	33	0.109	-	TLSv1.3	TLS_AES_128_GCM_SHA256	Error	HTTP/2.0	-	-	49884	0.109	Error	application/	ap			
http	476	0.000	-	-	-	Error	HTTP/1.1	-	-	49894	0.000	InvalidRequest	text/html	915	-	-	-	-	
lzHfo6Q==	d18v3h1qv04q1m.cloudfront.net	https	33	0.135	-	TLSv1.3	TLS_AES_128_GCM_SHA256	Error	HTTP/2.0	-	-	49884	0.135	Error	application/	ap			

**To delete a distribution first I have to disable the state and then I can delete the distribution.**

AWS CloudFront Management C | how standard logging works in a | Configuring and using standard | why my standard log file contains | +

console.aws.amazon.com/cloudfront/home?region=us-east-1

aws Services ▾

CloudFront

Distributions Policies What's new \*

▼ Telemetry Monitoring Alarms Logs NEW

▼ Reports & analytics Cache statistics Popular objects Top referrers Usage Viewers

▼ Security

Origin access identity

Create Distribution Distribution Settings Delete Enable Disable

Viewing : Any Delivery Method Any State

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
Web	E2MQMYG0T8JUK	d18v3h1qvo4q1n	-	lab4bucke	-	Deployed	Enabled	2021-04-19 12:5

Viewing 1 to 1 of 1 items

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This screenshot shows the AWS CloudFront Management console. The left sidebar includes links for Distributions, Telemetry, Reports & analytics, and Security. The main area displays a distribution named 'E2MQMYG0T8JUK' with a domain name 'd18v3h1qvo4q1n'. A modal dialog at the top right provides instructions on using CloudFront to serve static websites from Amazon Simple Storage Service.

AWS CloudFront Management C | how standard logging works in a | Configuring and using standard | why my standard log file contains | +

console.aws.amazon.com/cloudfront/home?region=us-east-1

aws Services ▾

CloudFront

Distributions Policies What's new \*

▼ Telemetry Monitoring Alarms Logs NEW

▼ Reports & analytics Cache statistics Popular objects Top referrers Usage Viewers

▼ Security

Origin access identity

Create Distribution

Disable Distribution(s)

Are you sure you want to disable the following distributions?

- E2MQMYG0T8JUK

Cancel Yes, Disable

Viewing 1 to 1 of 1 items

Origin	CNAMEs	Status	State	Last Modified
lab4bucke	-	Deployed	Enabled	2021-04-19 12:5

Viewing 1 to 1 of 1 items

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This screenshot shows the same AWS CloudFront Management console as the first one, but with a modal dialog titled 'Disable Distribution(s)' overlaid. It asks if the user is sure they want to disable the distribution 'E2MQMYG0T8JUK'. The background shows the same distribution list and interface elements as the first screenshot.

AWS CloudFront Management C | how standard logging works in a | Configuring and using standard | why my standard log file contains | +

console.aws.amazon.com/cloudfront/home?region=us-east-1

aws Services ▾

CloudFront

Distributions Policies What's new \*

▼ Telemetry Monitoring Alarms Logs NEW

▼ Reports & analytics Cache statistics Popular objects Top referrers Usage Viewers

▼ Security

Origin access identity

Create Distribution Distribution Settings Delete Enable Disable

Viewing : Any Delivery Method Any State

Delivery Method ID Domain Name Comment Origin CNAMEs Status State Last Modified

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
<input type="checkbox"/> Web	E2MQMYG0T8JUK	d18v3h1qvo4q1n -	-	lab4bucke -	-	In Prog	Disabled	2021-04-19 13:1

Viewing 1 to 1 of 1 items

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Feedback English (US) ▾

AWS CloudFront Management C | +

console.aws.amazon.com/cloudfront/home?region=us-east-1

aws Services ▾

CloudFront

Distributions Policies What's new \*

▼ Telemetry Monitoring Alarms Logs NEW

▼ Reports & analytics Cache statistics Popular objects Top referrers Usage Viewers

▼ Security

Origin access identity

Create Distribution Distribution Settings Delete Enable Disable

Viewing : Any Delivery Method Any State

Delivery Method ID Domain Name Comment Origin CNAMEs Status State Last Modified

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
<input checked="" type="checkbox"/> Web	E2MQMYG0T8JUK	d18v3h1qvo4q1n -	-	lab4bucke -	-	Deployed	Disabled	2021-04-19 13:1

Viewing 1 to 1 of 1 items

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Feedback English (US) ▾

The screenshot shows the AWS CloudFront Management console. On the left, there's a sidebar with options like Distributions, Telemetry, Reports & analytics, and Security. The main area displays a distribution named 'lab4bucke' with a status of 'Disabled'. A modal window titled 'Delete Distribution(s)' is open, asking if the user wants to delete the distribution 'E2MQMYGOT8JUK'. The modal has 'Cancel' and 'Yes, Delete' buttons.

This screenshot shows the same AWS CloudFront Management console after the distribution has been deleted. The distribution table now shows one item: 'lab4bucke' with a status of 'Deployed'. The 'Delete' button is visible in the distribution settings bar.

**To delete a bucket first the bucket needs to be emptied and then It can be deleted.**

S3 Management Console x +

s3.console.aws.amazon.com/s3/home?region=us-east-1

Services ▾

Amazon S3

Buckets

- Access Points
- Object Lambda Access Points
- Batch Operations
- Access analyzer for S3

Block Public Access settings for this account

▼ Storage Lens

- Dashboards
- AWS Organizations settings

Feature spotlight ?

AWS Marketplace for S3

Feedback English (US) ▾

Amazon S3

Buckets (2)

Buckets are containers for data stored in S3. [Learn more](#)

Name	AWS Region	Access	Creation date
lab4bucket-sr	US East (N. Virginia) us-east-1	Bucket and objects not public	April 19, 2021, 11:38:29 (UTC-04:00)
logbucketlab3-sr	US East (N. Virginia) us-east-1	Objects can be public	April 19, 2021, 12:57:33 (UTC-04:00)

Copy ARN Empty Delete Create bucket

Find buckets by name < 1 > ⚙

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S3 Management Console x +

s3.console.aws.amazon.com/s3/bucket/logbucketlab3-sr/empty?region=us-east-1

Services ▾

Amazon S3 > logbucketlab3-sr > Empty bucket

## Empty bucket

⚠ • Emptying the bucket deletes all objects in the bucket and cannot be undone.  
• Objects added to the bucket while the empty bucket action is in progress might be deleted.

[Learn more](#)

Permanently delete all objects in bucket "logbucketlab3-sr"?

To confirm deletion, type *permanently delete* in the text input field.

Cancel Empty

Feedback English (US) ▾

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The screenshot shows the 'Empty bucket' confirmation dialog. It includes a warning message about the不可逆性 of the action, a link to learn more, and a text input field where the user has typed 'permanently delete'. At the bottom, there are 'Cancel' and 'Empty' buttons.

S3 Management Console x

s3.console.aws.amazon.com/s3/bucket/logbucketlab3-sr/empty?region=us-east-1

Services v Search for services, features, marketplace products, and docs [Alt+S]

smita1611 Global Support

Successfully emptied bucket "logbucketlab3-sr"  
View details below. If you want to delete this bucket, use the [delete bucket configuration](#).

Empty bucket: status Cancel Exit

The details below are no longer available after you navigate away from this page.

**Summary**

Source	Successfully deleted	Failed to delete
s3://logbucketlab3-sr	1 object, 1015.0 B	0 objects

**Failed to delete (0)**

Name	Prefix	Version ID	Type	Last modified	Size	Error
No failed object deletions						

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This screenshot shows the AWS S3 Management Console. A green banner at the top indicates that the bucket 'logbucketlab3-sr' has been successfully emptied. Below this, a summary table shows one object successfully deleted from the source 's3://logbucketlab3-sr'. A table for failed deletions shows none. At the bottom, there are links for feedback, language selection, and standard AWS footer links.

S3 Management Console x

s3.console.aws.amazon.com/s3/home?region=us-east-1

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**Amazon S3**

Buckets

- Access Points
- Object Lambda Access Points
- Batch Operations
- Access analyzer for S3

Block Public Access settings for this account

▼ Storage Lens

- Dashboards
- AWS Organizations settings

Feature spotlight 3

► AWS Marketplace for S3

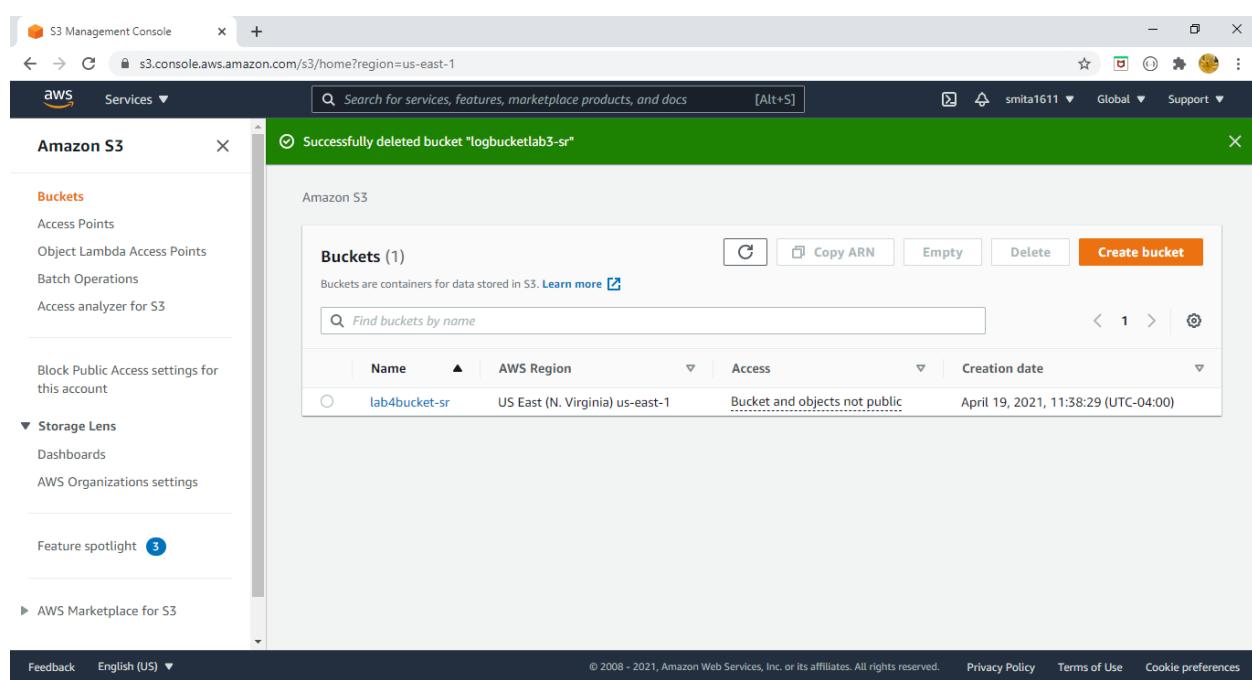
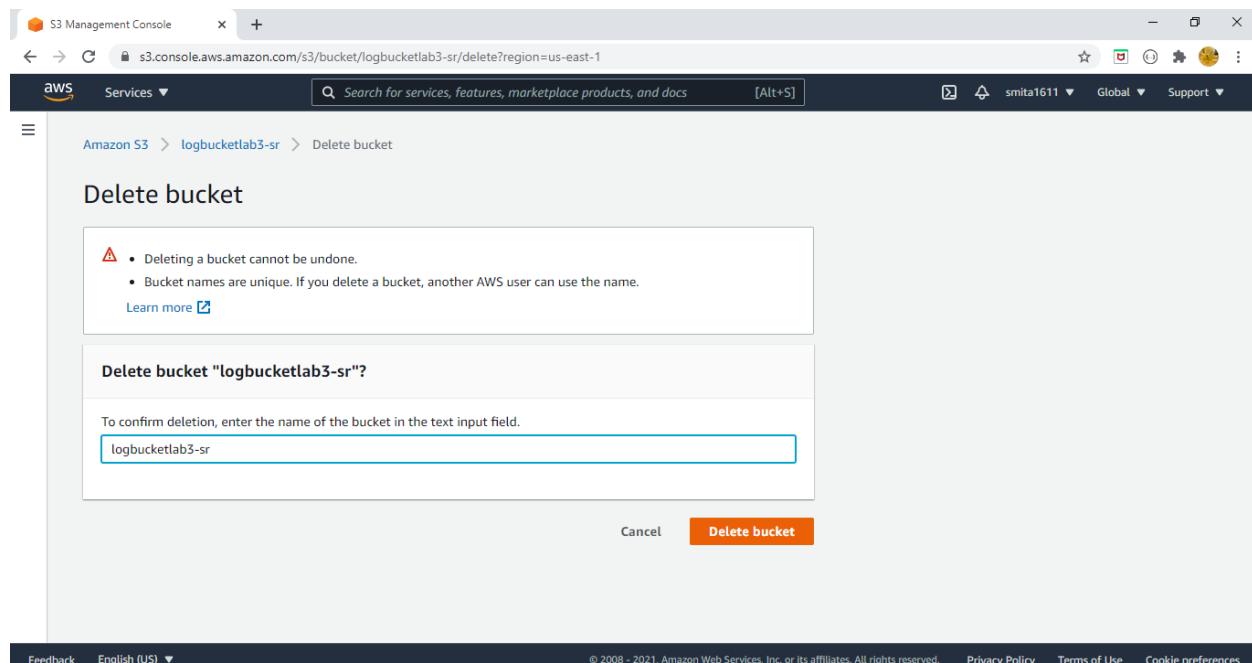
Buckets (2)

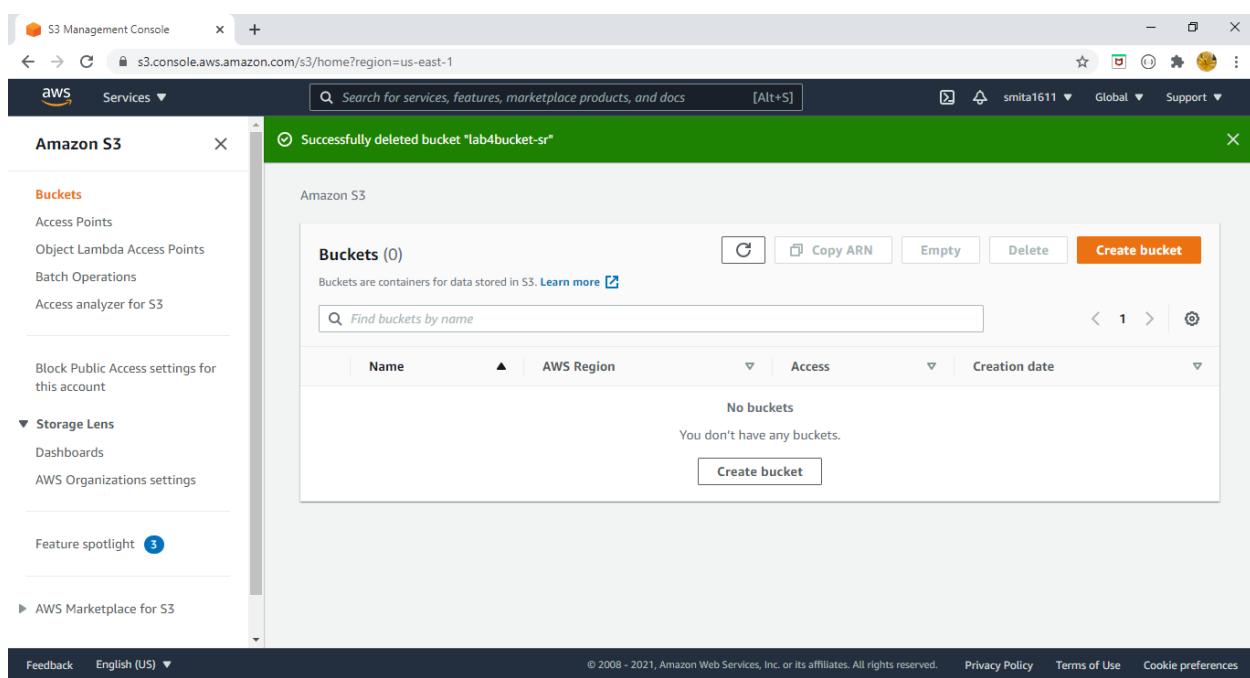
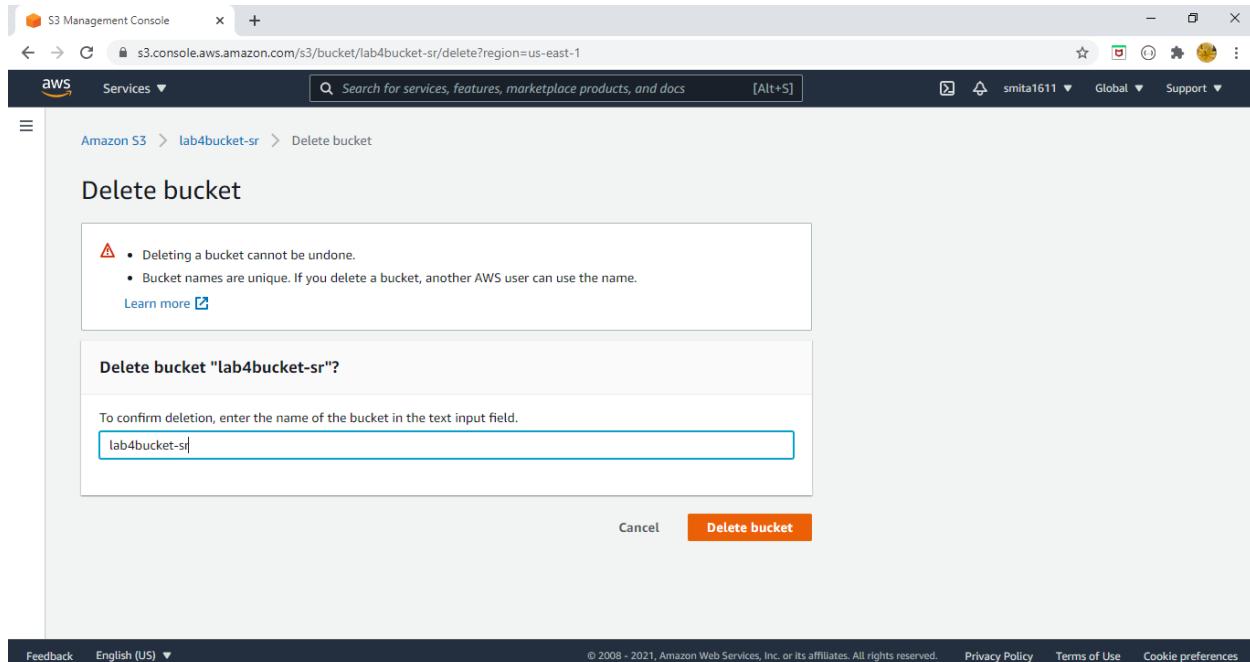
Buckets are containers for data stored in S3. [Learn more](#)

Name	AWS Region	Access	Creation date
lab4bucket-sr	US East (N. Virginia) us-east-1	Bucket and objects not public	April 19, 2021, 11:38:29 (UTC-04:00)
logbucketlab3-sr	US East (N. Virginia) us-east-1	Objects can be public	April 19, 2021, 12:57:33 (UTC-04:00)

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This screenshot shows the main AWS S3 Management Console home page. On the left, a sidebar lists various S3-related services and features like Buckets, Access Points, and Storage Lens. The main area displays a table of buckets, showing two entries: 'lab4bucket-sr' and 'logbucketlab3-sr', both located in the 'US East (N. Virginia)' region. The 'logbucketlab3-sr' bucket is currently selected. The bottom of the page includes the standard AWS footer with links for feedback, language selection, and legal notices.





I did not notice any difference in the speed but when the S3 bucket is in different region and request comes from different region, in that scenario request from S3 bucket would be slower.

Amazon S3 is known to be slow when serving web content directly. One reason why it is slow is that a bucket is only located in one geographical location. The location is selected when you create the bucket. For example, if your bucket is created on Amazon servers in California, but your users are in India, then images will still be served from California. This geographical distance causes slow image loading on your website. Further, it is not uncommon to see very heavy images on S3, with large dimensions and high byte size. One can only speculate on the reasons, but it is probably related to the publication workflow and the convenience of S3 as a storage space.

CloudFront speeds up content delivery by leveraging its global network of data centers, known as edge locations, to reduce delivery time by caching your content close to your end users. CloudFront fetches your content from an origin, such as an Amazon S3 bucket, an Amazon EC2 instance, an Amazon Elastic Load Balancing load balancer or your own web server, when it's not already in an edge location. CloudFront can be used to deliver your entire website or application, including dynamic, static, streaming, and interactive content.

Although cost-effective, **Amazon CloudFront Content Delivery Network has a lot to offer**. The service is built on a reliable infrastructure that allows for amazing speeds and adaptability that adjusts to the most current of your website needs.

Amazon CloudFront also offers simple functionality, integration with other Amazon Web Services, the distribution of websites as well as other web applications, plus so much more.

There are several benefits a CDN offers to enhance your website

- Faster website speed
- Improved SEO rankings due to faster site speeds
- Higher conversion rates for e-commerce
- Manage traffic spikes by distributing network traffic across servers
- Increased reliability
- Additional security features
- Better protection against DDoS attacks
- Detailed analytics
- Helps to save bandwidth provided by web host

One aspect that sets Amazon CloudFront's apart from its competitors is its cloud-based delivery system that offers **2 key benefits: unshakable reliability and elasticity**.

Versatile Functionality

Amazon CloudFront allows you to create 2 types of distributions: web distribution for HTTP/HTTPS protocols and distribution for RTMP and its variants.

This simply means that the service can be used to distribute website content (both static and dynamic), web applications, as well as audio transmissions, videos, media files, and documents.

#### Compatibility with All Amazon Web Services

Amazon CloudFront's hardware is designed to fully integrate with all the other Amazon Web Services ranging from Amazon S3 to EC2, and from SNS to SES. CloudFront also integrates seamlessly with CloudBerry Explorer, an easy to use file manager.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/HowToDeleteDistribution.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-testing.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-creating-console.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-values-specify.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-creating-console.html>

<https://aws.amazon.com/premiumsupport/knowledge-center/read-access-objects-s3-bucket/>

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/uploading-an-object-bucket.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-values-specify.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-working-with.html>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/introduction.html>

[https://docs.aws.amazon.com/cloudfront/latest/APIReference/API\\_Origin.html](https://docs.aws.amazon.com/cloudfront/latest/APIReference/API_Origin.html)

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/acl-overview.html>

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/add-bucket-policy.html>