

# Simple Storage Service.

## Object storage.

Files from 0 to STB  
Files reside in bucket.

<https://s3-us-west-1.amazonaws.com/mybucket/>  
keyname

### Virtual host

<https://mybucket.s3.us-east-1.amazonaws.com/>  
keyname

- key
- value
- Version ID
- Metadata
- Sub resources

if you write new files you always see the new file.  
If you cpolate or remove maybe you could see the old file

Eventual consistent  
update files  
Delete

Strong consistent  
Read consistency

Read after write.

Encryption and access control list (files)  
Bucket Policy.

### Storage classes:

- S3 standard 99.99 % availability, 11- 9 durability.
- S3 - IA 99. 9% Intelligent Tiering.
- S3 One AZ 99.5 %
- S3 Glacier
- S3 Glacier Deep Archive
- 

Min Object Size

40KB

128KB for

For Glacier

Others

except

and Glacier Deep Archive

(S3, and S3-IT)

Deep Archive - can last up to 12 hours

Glacier: from minutes to hours with expedite

Glacier 90 days minimum

Glacier DA 180 days

S3 One AZ, S3 IT, S3 IA

30 day minimum

All have  $\geq 3$  AB, except  
of course S3 - one AB IA

## S3 Security

All private.

Can have access log.

Bucket without restriction, does not mean object can be accessed automatically. We need to update ACL

Cors : Cross Origin resources shared.

S3 It's mandatory for public website.

<http://myindex.s3-website-us-east-1.amazonaws.com>

one bucket: js

two bucket: html

three bucket: images



CORS POLICY      Bucket with  
no CORS

the desire  
file!

```
[  
 {  
     "AllowedHeaders": [  
         "Authorization"  
     ],  
     "AllowedMethods": [  
         "GET"  
     ],  
     "AllowedOrigins": [  
         "*"  
     ],  
     "MaxAgeSeconds": 3000  
 }  
 ]
```

Allowed Origin : Should include origin who wan  
to access file

{you are giving explicit  
Permission}

Cloud Front: To serve files hosted on edge location.

Edge location: You can write S3 use Transfer Acceleration

Origin

Distribution Name given by CDN

Can be: web distribution  
and

IOA, was used to ensure only access from CloudFront

Summary  
OTO STB  
In buckets

Read AFTER Write  
(new files)  
eventual consistent  
6 storage classes  
S3, S3 IA, S3 ONE ZONE,  
S3 IT, S3 Reduce Redundancy  
Storage  
Glacier, Glacier Deep Archive

Key	Metadata
Value	Subresource
Version	<ul style="list-style-type: none"> <li>↳ Acceleration</li> <li>→ CORS</li> <li>→ Bucket Policies</li> </ul>

Only  
Files

Private by default

Encryption  
Rest → 256  
SSE-S3  
SSE-KMS

Bucket Policy > Access Control List  
Client Side  
x-amz-server-side-encryption

Always use s3 website

http://bucket7.s3-website-us-east-1.amazonaws.com

http://s3-us-east-1.amazonaws.com/bucket

## CloudFront

Edge Location : When resides the cache

Origin : Where are the files

Distribution : Given by CDN

Add random prefix string

Add FAQ S3

